



INSTITUTUL NAȚIONAL PENTRU FIZICA LASERILOR,  
PLASMEI ȘI RADIAȚIEI

# RAPORT ANUAL

## 2009

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# CUPRINS

1. Datele de identificare .....	3
1.1 Denumire .....	3
1.2 Actul de infiintare, cu modificarile ulterioare .....	3
1.3 Numarul de inregistrare in Registrul Potentialilor Contractorii .....	3
1.4 Director .....	3
1.5 Adresa .....	3
1.6 Telefon, fax, pagina de web, e-mail .....	3
2. Scurta prezentare .....	4
2.1 Istoric .....	4
2.2 Organigrama .....	6
2.3 Domeniul de specialitate .....	6
a. Conform clasificarii UNESCO .....	6
b. Conform clasificarii CAEN = 731 .....	6
2.4 Directii de cercetare-dezvoltare .....	6
a. Domenii principale de cercetare .....	6
b. Domenii secundare de cercetare .....	6
c. Servicii / microproductie .....	6
3. Structura de Conducere .....	7
3.1 Consiliul de Administratie .....	8
3.2 Consiliul Stiintific .....	8
3.3 Comitet de Directie .....	9
4. Situatiia economico-financiara .....	10
5. Structura resursei umane de cercetare-dezvoltare .....	10
6. Infrastructura de cercetare-dezvoltare .....	11
7. Rezultatele activitatii de cercetare-dezvoltare .....	13
8. Masuri de crestere a prestigiului si vizibilitatii Institutului de Fizica Laserilor, Plasmei si Radiatiei .....	14
8.1 Prezentarea activitatii de colaborare prin parteneriate .....	14
8.2 Inscrierea INCD ca membru in retelele de cercetare / membru in asociatii .....	14
8.3 Precizarea targurilor si expozitiilor nationale si internationale la care INCD a participat si a rezultatelor cu care acesta a participat .....	15
8.4 Prezentarea activitatii de mediatizare .....	15
9. Surse de informare si documentare din patrimoniul stiintific si tehnic al INCD .....	16
10. Concluzii .....	17
11. Perspective / Prioritati pentru anul in curs .....	17
Anexa 1. INFLPR Organigrama 2009 .....	19
Anexa 2. Venituri .....	20
Anexa 3. Structura personalului de cercetare .....	28
Anexa 4. Lista echipamentelor performante si facilitatile de cercetare speciale .....	29
Anexa 5. Lucrari stiintifice / tehnice in reviste de specialitate cotate ISI .....	34
Anexa 6. Brevete de inventie .....	67
Anexa 7. Produse / servicii / tehnologii .....	69
Anexa 8. Lucrari stiintifice / tehnice in reviste de specialitate fara cotaie ISI .....	75
Anexa 9. Comunicari stiintifice prezentate la conferinte internationale .....	80
Anexa 10. Studii prospective si tehnologice normative, proceduri, metodologii .....	102
Anexa 11. Drepturi de autor protejate ORDA .....	102
Anexa 12. Membrii in colective de redactie ale revistelor ISI .....	102
Anexa 13. Membrii in colective de redactie ale revistelor recunoscute national .....	103
Anexa 14. Premii internationale .....	103
Anexa 15. Premii nationale .....	104
Anexa 16. Excelenta internationala recunoscuta .....	104
Anexa 17 .....	104
A. Parteneriate internationale .....	104
B. Parteneri internationali .....	106
C. Parteneriate interne pe proiecte .....	107
D. Inscrierea INCD ca membru in retelele de cercetare / membru in asociatii profesionale de prestigiu pe plan national / international .....	108
E. Participarea in comisii de evaluare concursuri nationale si internationale .....	108
F. Personalitati stiintifice care au vizitat INFLPR .....	110
G. Lectii invitate .....	110
H. Conferinte internationale organizate de INFLPR .....	111
I. Personalitati stiintifice romanesti in comitetele de organizare ale conferintelor nationale si internationale .....	111

## **Datele de identificare**

### **1.1 Denumire**

Institutul National de Cercetare-Dezvoltare pentru Fizica Laserilor,  
Plasmei si Radiatiei

### **1.2 Actul de infiintare, cu modificarile ulterioare**

INFLPR a devenit institut national de cercetare-dezvoltare in anul 1996 prin HG 1310/1996 si reacreditat prin HG 1581/2004. Prin acelasi H.G. s-a hotarat ca institutul sa aiba ca filiala cu personalitate juridica Institutul de Stiinte Spatiale-ISS.

**Raportul INFLPR include rezultatele filialei ISS  
ISS va prezenta separat Raportul Anual**

### **1.3 Numarul de inregistrare in Registrul Potentialilor Contractor**

**1877**

### **1.4 Director**

Director General Dr. Ing. Ion Morjan

### **1.5 Adresa**

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# Scurta prezentare

## 2.1 Istoric

Institutul National de Fizica Laserilor, Plasmei si Radiatiei (**INFLPR**) s-a infiintat in conformitate cu Hotararea Guvernului Romaniei Nr. 1310/1996, ca unitate cu personalitate juridica, rezultat in urma reorganizarii si unificarii IFTAR si IGSS.

Continuand o traditie de peste 40 de ani in domeniul cercetarilor de fizica, Institutul National de Fizica Laserilor, Plasmei si Radiatiei (**INFLPR**) are ca obiect principal de activitate efectuarea de cercetari fundamentale, aplicative si dezvoltare tehnologica in domeniile: fizica laserilor, electronica cuantica a solidului, fizica plasmei, fizica fasciculelor de electroni precum si fizica spatiului cosmic.

Strategia activitatii de C-D a **INFLPR** pe termen scurt si mediu vizeaza dezvoltarea cercetarii stiintifice, valorificarea potentialului uman, reorganizarea si restructurarea pe criterii de eficienta a activitatii de cercetare-dezvoltare, ca parte integranta in strategia nationala a **MECT / ANCS** conform programelor:

- Programul Nucleu "LAPLAS" 2006-2008 si 2009-2011;
- Programul National de Cercetare Dezvoltare si Inovare 2007-2013;
- Programele Comunitatii Europene PC 7 – Proiecte tehnologice
- Programul PC 7 - EURATOM

**Programele specifice de C-D ale INFLPR sunt:**

- Programul de laseri si aplicatii cu obiectivul principal "**Studiul interactiunilor intre fascicule fotonice intense si materie**"
- Programul de electronica cuantica a solidului cu obiectivul principal "**Noi materiale si procese pentru surse coerente si necoerente de fotoni**"
- Programul de plasma si aplicatii cu obiectivul principal "**Cercetari avansate de fizica plasmelor fierbinti si fuziune nucleara, procese de interactie in plasma si plasma-suprafata**"
- Programul de fizica electronilor accelerati cu obiectivul principal "**Cercetari in domeniul interactiei electronilor accelerati si a microundelor cu substanta**"
- **Programul de stiinte spatiale**

Aceste obiective au fost propuse in **Strategia Nationala 2007-2013**, ele regasindu-se in domeniul "**Stiinta, Stiinte de frontiera, Dezvoltarea cunoasterii**" cu subdirectiile:

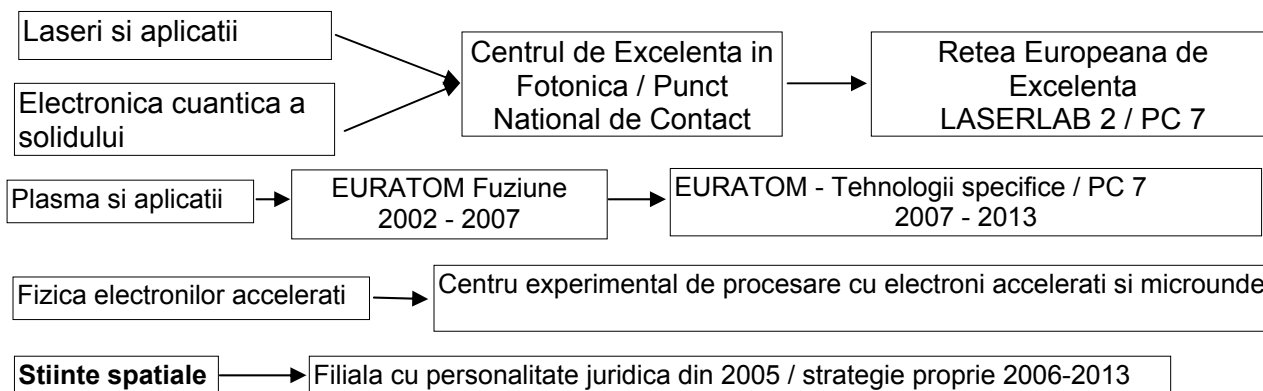
- 🚩 **Fotonica;**
- 🚩 **Procese si fenomene fizice in materia condensata;**
- 🚩 **Interactia particulelor si a radiatiei cu substanta;**
- 🚩 **Fizica mediilor condensate, a plasmelor si fuziune nucleara;**
- 🚩 **Fizica interiorului Pamantului, a mediului si a spatiului cosmic.**

Strategia stiintifica si marketingul economic al **INFLPR**, privind atragerea de fonduri suplimentare pe baza competentelor pe care le are, vizeaza cresterea finantarii extrabugetare interne si externe prin participarea la Programul Cadru VII al Uniunii Europene si orientarea cercetarii spre piata si forme de parteneriat cu beneficiari interni si externi, pentru implementarea rezultatelor cercetarii in scopul cresterii competitivitatii si finalizarii tintelor economice aplicative ale proiectelor din PNCDI.

Definirea prioritatilor in cercetare, monitorizarea si evaluarea proiectelor propuse / finantate atat din punct de vedere al utilizarii resurselor financiare cat si prin transferul si valorificarea rezultatelor, reprezinta directii de actiune ale **INFLPR** pentru perioada 2007 - 2013.

**Misiunea INFLPR este:**

- a) De promovare a cunoasterii in cadrul programelor de cercetare specifice, in concordanta cu Programul National de Cercetare-Dezvoltare-Inovare si Programul NUCLEU (platforma stiintifica a institutului pentru pregatirea programelor europene si a proiectelor complexe) pentru identificarea prioritatilor economiei nationale, sustinerea activitatilor de cercetare stiintifica si transfer tehnologic, mentinerea nivelului stiintific la nivel european;
- b) De dezvoltare a cunoasterii **ca un centru de excelenta** pe principalele programe europene atat aplicative, cat si fundamentale, in domeniul:



- c) De promovare si de impunere in Romania a standardelor europene.
- d) De crestere a participarii României la efortul mondial de cunoastere si utilizare a spatiului cosmic cu efecte asupra imbunatatirii calitatii vietii pe Pamant.
- e) De a contribui la mentinerea si dezvoltarea capabilitatilor si expertizei spatiale ale Romaniei.

## Obiective prioritare

- 🚧 REALIZAREA UNUI LASER DE CLASA PETAWATT
- 🚧 TEHNOLOGII FOTONICE AVANSATE CU APLICATII IN CRESTEREA CALITATII VIETII;
- 🚧 CERCETARI DE FIZICA SI TEHNOLOGIA FUZIUNII NUCLEARE CONTROLATE;
- 🚧 PROCESARE CU PLASMA SI LASERI PENTRU SINTEZA DE MATERIALE NOI SI INGINERIA SUPRAFETELOR ;
- 🚧 CERCETARI IN DOMENIUL TRATAMENTELOR COMBinate (FASCICULE DE ELECTRONI, RADIATII DE FRANARE SI MICROUND) PENTRU DEZVOLTAREA DE TEHNICI SI TEHNOLOGII APLICATIVE IN DEPOLUAREA MEDIULUI, PROTECTIA ALIMENTARA, SANATATE.
- 🚧 PARTICIPAREA LA EFORTUL MONDIAL DE CUNOAȘTERE A SPAȚIULUI COSMIC ȘI A PLANETEI PĂMÂNT;
- 🚧 INTENSIFICAREA ȘI AMPLIFICAREA ACTIVITĂȚILOR DE CERCETARE & DEZVOLTARE ÎN DOMENIUL SPAȚIAL DIN ROMÂNIA PRECUM ȘI PARTICIPAREA, CU ACTIVITĂȚI SPECIFICE CERCETĂRIILOR SPAȚIALE, LA ALTE PROGRAME DE CERCETARE DE FIZICĂ ȘI CONEXE, IN SPECIAL LA EXPERIMENTE LA MARILE ACCELERATOARE DIN LUME;
- 🚧 DEZVOLTAREA, ÎN PARALEL CU REALIZAREA SCOPURILOR ȘTIINȚIFICE, A APARATURII DESTINATE ACESTOR SCOPURI, CU PERFORMANȚE LA NIVEL MONDIAL ȘI CU IMPACT ULTERIOR ÎN DEZVOLTAREA TEHNOLOGIEI DE VÂRF PENTRU APLICATII IN IMBUNATATIREA VIETII PE PAMANT;
- 🚧 DEZVOLTARE DE APLICATII SPAZIALE;
- 🚧 CRISTALIZAREA UNEI IMAGINI CORECTE ÎN LUME DESPRE ROMÂNIA PRIN ALINIAREA EI ÎN RÂNDUL ȚĂRIILOR AVANSATE ÎNTR-UN DOMENIU DE VÂRF, ȘTIINȚIFIC ȘI APLICATIV, CU IMPACT ÎN CREȘTEREA CREDIBILITĂȚII PRODUSELOR ROMÂNESTI PE PIETELE INTERNAȚIONALE.

## 2.2 Organigrama

Organigrama Institutului National de Fizica Laserilor Plasmei si Radiatiei este prezentata in [Anexa 1](#).

## 2.3 Domeniul de specialitate

- a. Conform clasificarii UNESCO:23
- b. Conform clasificarii CAEN: 7219

## 2.4 Directii de cercetare-dezvoltare

- a. Domenii principale de cercetare

- **Fizica Laserilor**
- **Fizica Plasmei si Fuziune**
- **Fizica Acceleratoarelor de Electroni**
- **Nanofotonica, nanomateriale si nanotehnologii**
- **Fizica spatiala**
- **Gravitatie si Microgravitatie**
- **Tehnologii spatiale**

INFLPR are ca **obiect principal de activitate** aprofundarea cercetarilor fundamentale si aplicative, dezvoltarea tehnologica in domeniile: Fizica laserilor, Electronica cuantica a solidului, Fizica plasmei, Fizica fasciculelor de electroni precum si in Fizica spatiului cosmic: Fizica spatiala (radiatii cosmice, astrofizica nucleara si particule; plasma spatiala si magnetometrie; cosmologie); Fizica si astrofizica teoretica (fizica matematica; gravitatie si microgravitatie); Tehnologii spatiale (inginerie pentru cercetari spatiale).

- b. Domenii secundare de cercetare

- **Aplicatii industriale ale tehnologiilor laser**
- **Aplicatii spatiale si terestre**
- **Elaborarea de tehnologii**
- **Realizarea de modele experimentale**
- **Acreditare/certificare metrologie laser**

**Activități conexe:** Participarea la elaborarea strategiei domeniului pentru realizarea de laseri si aplicatii in domeniul nanomaterialelor si nanotehnologiilor; Aplicatiile laserilor in stiintele vietii, Plasma de fuziune si plasma de temperatura joasa, Fizica fasciculelor de electroni si tehnologii adecvate de iradiere complexe dedicate aplicatiilor in medicina, biologie, conservarea si protectiei mediului; Formare si specializare profesionala; consultanta si asistenta tehnica de specialitate; Participare la realizarea transferului tehnologic: promovarea activitatilor de valorificare a cercetarii prin transferul tehnologic al rezultatelor cercetarii agentilor economici cu capital de stat sau privat; standardizarea in domeniul aparaturii spatiale.

Servicii / microproductie

**Servicii de specialitate:**

- **Furnizarea de fascicule de electroni accelerati.**
- **Tratamente de produse si materiale prin iradiere cu electroni.**
- **Metrologie legală în domeniul laserilor.**
- **Pregătire si specializare în domeniul laserilor si plasmei.**
- **Analiza nedistructiva cu radiatii X (microtomografie si fluorescenta)**
- **Educatie**

**Microproductie**

- **Acoperiri speciale cu W si Be folosind tehnologii proprii pentru instalatiile de fuziune nucleara tokamak (JET – Joint European Torus), UK si ASDEX Upgrade, Germania**
- **Tratamente de niturare ionica si PASK (Plasma AntiStiKing)**

## **Structura de Conducere**

### **3.1 Consiliul de Administratie**

Este format din 7 membri:

Presedinte: Ion Morjan, Director General INFLPR

Membri: Gheorghe Asanica, Secretar General MECI  
Ladislau Vekas, CCAF, Acad. Romana - Filiala Timisoara  
Traian Dascalu, INFLPR,  
Juganaru Georgeta, Director Ministerul Muncii  
Ionita Stefania, Director Ministerul Finantelor  
Vlad Madalina, Presedinte Consiliul Stiintific INFLPR

### **3.2 Consiliul stiintific**

Este format din 25 membri:

Presedinte

1. Dr. Madalina Vlad, CS I , Laborator Plasme Fuziune

Vicepresedinte

2. Dr. Lucia Popa, CS I

Secretar

3. Dr. Stefan Amarande, CS II, Sectia Laseri

Membri

4. Dr. Ing. Ion Morjan, Director General, CS I
5. Dr. Traian Dascalu, Director Stiintific, CS I
6. Dr. Viorica Stancalie, Sef Sectie Laseri, CS I
7. Prof. Dr. Ion Mihailescu, Sectia Laseri, CS I
8. Dr. Constantin Grigoriu, Sectia Laseri, CS I
9. Dr. Logofatu Catalin, Sectia Laseri, CS I
10. Prof. Dr. Craciun Valentin, Sectia Laseri, CS I
11. Dr. Constantin Fenic, Sectia Laseri, CS I
12. Dr. Petris Adrian, Sectia Laseri, CS I
13. Prof. Dr. Serban Georgescu, Laboratorul de Electronica Cuantica a Solidului, CS I
14. Dr. Cristian Ruset, Sef Laborator Plasme Fuziune, CS I
15. Dr. Ion Tiseanu, Laborator Plasme Fuziune, CS I
16. Dr. Constantin Oproiu, Sef Lab. Acceleratori de Electroni, CS I
17. Dr. Scarlat Florea, CS I
18. Dr. Agavni Surmeian, Sef Lab. Plasma de Temperatura Joasa, CS I
19. Dr. Cristian Lungu, Laborator Plasma de Temperatura Joasa, CS I
20. Prof. Dr. George Dinescu, Laborator Plasma de Temperatura Joasa, CS I
21. Dr. Dumitru Hasegan, ISS, CS I



22. Dr. Pompiliu Grunfeld, ISS, CS I
23. Dr. Vlad Popa, ISS CS I
24. Dr. Vlad Valeanu, ISS, CS I

### **3.3 Comitet de Directie**

1. Ion Morjan - Director General
2. Traian Dascalu - Director Stiintific
3. Dumitru Hasegan Director ISS
4. Mihaela Osman – Contabil Sef
5. Madalina Vlad - Presedinte Consiliu Stiintific
6. Viorica Stancalie - Sef Sectie Laseri
7. Traian Dascalu - Sef Laborator Electronica Cuantica a Solidului
8. Cristian Ruset - Sef Laborator Plasme Fuziune
9. Elena Manaila - Sef Laborator Acceleratori de Electroni
10. Dan Sporea - Sef Laborator Metrologie Laser
11. Agavni Surmeian - Sef Laborator Plasma de Temperatura Joasa

## Situatia economico-financiara

Venituri totale = **52.151.918 RON**

din care:

- Venituri realizate prin contracte de cercetare-dezvoltare nationale finantate de la bugetul de stat =  
**47.386.257 RON**
- Venituri realizate prin contracte de cercetare-dezvoltare internationale finantate din fonduri publice =  
**4.554.941 RON**
- Venituri realizate prin contracte de cercetare-dezvoltare finantate din fonduri private = **0**
- Venituri realizate din activitati economice (servicii, microproductie, exploatarea drepturilor de proprietate intelectuala) =  
**210.270 RON**

## Vezi Anexa 2. Situatia economico-financiara

### Structura resursei umane de cercetare-dezvoltare

- Total personal, **430**  
din care:
  - Personal de cercetare-dezvoltare atestat cu studii superioare = **297**
  - Personal auxiliar = **133**
- Informatii privind activitatea de perfectionare a resursei umane (personal implicat in procese de formare - stagii de pregatire, cursuri de perfectionare)
  - Numar de doctoranzi si masteranzi care lucreaza in unitatea de cercetare-dezvoltare la data completarii formularului: **95 doctoranzi; 7 masteranzi**
  - In anul 2009 au participat la cursurile de perfectionare, in tara si in strainatate, **24 de persoane**

## Vezi Anexa 3. Structura resursei umane de cercetare-dezvoltare

## **Infrastructura de cercetare-dezvoltare**

### **▪ Laboratoare de cercetare-dezvoltare**

#### **1. SECTIA LASERI**

- a. Laseri cu Corp Solid**
- b. Interactiuni Laser-Suprafata-Plasma**
- c. Fizica Astroparticulelor**
- d. Pulberi Nanometrice, Doturi Cuantice, Filme Subtiri Nanostructurate**
- e. Interferometrie Laser si Aplicatii**
- f. Procese Atomice in Camp Laser Intens**
- g. Spectroscopie Laser**
- h. Fotochimie cu Laser**
- i. Optica si Laseri in Stiintele Vietii, Mediu si Tehnologie**
- j. Fotonica Neliniara si Informationala**
- k. Tehnologii Avansate de Strat-uri Subtiri**
- l. Procesare Optica de Materiale Avansate**

#### **2. LABORATORUL DE ELECTRONICA CUANTICA A SOLIDULUI**

#### **3. LABORATORUL DE PLASMA SI FUZIUNE NUCLEARA**

- a. Ingineria Suprafetelor in Plasma**
- b. Fizica si Ingineria Surselor de Electroni si Raze X cu Plasma**
- c. Stocare Particule Atomice si Etaloane de Frecventa**
- d. Teoria Plasmei**
- e. Modelare Matematica si Analiza Datelor pentru Fuziune**
- f. Plasme Dens Magnetizate**

#### **4. LABORATORUL ACCELERATORI DE ELECTRONI**

#### **5. LABORATORUL DE METROLOGIE LASER SI STANDARDIZARE**

#### **6. LABORATORUL PLASME DE TEMPERATURA JOASA**

- a. Procese in Plasma, Materiale si Suprafete**
- b. Plasme Pulsate Tranziente**
- c. Procese Elementare in Plasma si Aplicatii**

### **▪ Laboratoare de incercari acreditate / neacreditate**

- Laborator de incercari in domeniul radiatiei optice coerente (inclusiv sisteme de comunicatii pe fibra optica) si necoerente, in curs de reacreditare;
- Laborator de etalonari in domeniul radiatiei optice coerente (inclusiv sisteme de comunicatii pe fibra optica) si necoerente, in curs de acreditare
- Laborator de dozimetrie standard secundara la energii inalte (in curs de acreditare)

- **Instalatii si obiective speciale de interes national**
  - a) **Instalatii de plasma densa magnetizata**
  - b) **Accelerator linear 10 MeV**
  - c) **Accelerator linear 7 MeV**
  - d) **Betatron**
  - e) **Microtron**
  - f) **Centrul de Stiinte si Tehnologii Spatiale**  
*(Obiectiv de investitii in curs de realizare)*
  
- **Centrul pentru Educatie Stiintifica**

**Lista echipamentelor performante si facilitatile de cercetare speciale se prezinta in Anexa Nr. 4**

Echipamente necorporale: 19

Echipamente corporale: >200

## Rezultatele activitatii de cercetare-dezvoltare

		INFLPR	ISS	INFLPR ISS
7.1	Lucrări <sup>1</sup> științifice/tehnice in reviste de specialitate cotate ISI.	146	71	217
7.2	Factor de impact cumulată al lucrărilor cotate ISI.	223	142	365
7.3	Citări in reviste de specialitate cotate ISI.	1346	1455	2801
7.4	Brevete <sup>2</sup> de invenție. (solicitate / acordate/internationale)	10/6/2 internationale	-	10/6/2 internationale
7.5	Citari in sistemul ISI ale cercetarilor brevetate.		-	
7.6	Produce / servicii / tehnologii rezultate din activități de cercetare, bazate pe brevete, omologări sau inovatii proprii <sup>3</sup> .	33/6/21	-	33/6/21
7.7	Lucrări științifice/tehnice <sup>4</sup> in reviste de specialitate fără cotație ISI .	73	18 <b>Carti=4</b>	91 <b>Carti=4</b>
7.8	Comunicări științifice <sup>5</sup> prezentate la conferințe internaționale.	319	77	396
7.9	Studii <sup>6</sup> prospective și tehnologice, normative, proceduri, metodologii și planuri tehnice, noi sau perfecționate, comandate sau utilizate de beneficiar.	5	-	5
7.10	Drepturi de autor <sup>7</sup> protejate ORDA sau in sisteme similare legale.		-	
7.11	Membri <sup>8</sup> in colectivele de redacție ale revistelor recunoscute ISI (sau incluse în baze internaționale de date) și în colective editoriale internaționale.	20	-	20
7.12	Membri <sup>9</sup> in colectivele de redacție ale revistelor recunoscute national (categoria B in clasificarea CNCSIS).	2	-	2
7.13	Premii <sup>10</sup> internaționale obținute prin proces de selecție.	6	1	7
7.14	Premii <sup>11</sup> naționale (ale Academiei Române, CNCSIS, altele).	2	-	2
7.15	Număr conducători de doctorat, membri ai unității de cercetare.	8	-	8
7.16	Număr de doctori , membri ai unității de Cercetare.	96	34	130

<sup>1</sup> se prezinta in anexa 5 la raportul de activitate [titlu, revista, autorii]

<sup>2</sup> se prezinta in anexa 6 la raportul de activitate [titlu, revista oficiala, inventatorii/titularii]

<sup>3</sup> se prezinta in anexa 7 la raportul de activitate pe categorii [produse, servicii, tehnologii], inclusiv date tehnice si domeniu de utilizare

<sup>4</sup> se prezinta in anexa 8 la raportul de activitate [titlu, revista, autorii]

<sup>5</sup> se prezinta in anexa 9 la raportul de activitate [titlu, conferinta, autorii]

<sup>6</sup> se prezinta in anexa 10 la raportul de activitate [titlu, operatorul economic, numarul contractului/protocolului etc.]

<sup>7</sup> se prezinta in anexa 11 la raportul de activitate [titlu, revista oficiala, autorii/titularii]

<sup>8</sup> se prezinta in anexa 12 la raportul de activitate [titlu, revista, numele si prenumele persoanelor]

<sup>9</sup> se prezinta in anexa 13 la raportul de activitate [titlu, revista, numele si prenumele persoanelor]

<sup>10</sup> se prezinta in anexa 14 la raportul de activitate [premiul, autoritatea care l-a acordat, autorii]

<sup>11</sup> se prezinta in anexa 15 la raportul de activitate [premiul, autoritatea care l-a acordat, autorii]

## **Masuri de crestere a prestigiului si vizibilitatii Institutului de Fizica Laserilor, Plasmei si Radiatiei**

Excelenta internationala recunoscuta: 3 atestari, vezi Anexa 16

### **8.1 Prezentarea activitatii de colaborare prin parteneriate**

- Dezvoltarea de parteneriate la nivel national si international (cu personalitati/institutii/asociatii profesionale) in vederea participarii la programe nationale si europene specifice

Parteneriate internationale pe proiecte: 35

Parteneri internationali: 19

Parteneriate interne: 32

**116 proiecte in parteneriat intern**

### **8.2 Inscrierea INCD ca membru in retelele de cercetare / membru in asociatii**

- Inscrierea INCD in baze de date internationale care promoveaza parteneriatele
- Inscrierea INCD ca membru in retele de cercetare internationale/ membru in asociatii profesionale de prestigiu pe plan national si international (Anexa 17A) 14
- Participarea in comisii de evaluare concursuri nationale si internationale (Anexa 17B) 9
- Personalitati stiintifice care au vizitat INCD (Anexa 17C) 26
- Lectii invitate, cursuri si seminarii sustinute de personalitati stiintifice invitate (Anexa 17D) 27

**VEZI ANEXELE 17 A - 17 I**

### 8.3 Precizarea targurilor si expozitiilor nationale si internationale la care INCD a participat si a rezultatelor cu care acesta a participat

- Targuri si expozitii internationale
- Targuri si expozitii nationale
  - 1.- Participarea la TIB-2009
  2. ROMCONTROLA 2009, Bucuresti, stand referitor la masurarea vibratiilor folosind laserul
  3. Caravana Cercetarii la Cluj-Napoca, Mioveni
  4. SCIENCE SHOW – SĂRBĂTOAREA ȘTIINȚEI LA BUCUREȘTI, în cadrul evenimentului european RESEARCHERS NIGHT - NOAPTEA CERCETĂTORILOR, 25 Septembrie 2009

### 8.4 Prezentarea activitatii de mediatizare

- Extrase din presa (interviuri)
  1. « Technologie de recouvrement d'implants osseux par techniques laser pulsées avancées », Buletinul electronic al Ambasadei Frantei in Romania (<http://www.bulletins-electroniques.com/actualites/61698.htm>).
  2. « Capteurs optiques de gaz Sondag-Shiva », Buletinul electronic al Ambasadei Frantei in Romania (<http://www.bulletins-electroniques.com/actualites/61699.htm>).
  3. "Descoperiri care au revolutionat tehnologiile informationale" - Convorbire cu acad. Valentin I. Vlad, ziarul Curentul, vineri 13 noiembrie 2009
  4. Ziu Online, Nr. 4534 de joi, 14 mai 2009, **Partea "Made in Romania" a Misiunii Spatiale Planck**, Adrian Enculescu (Lucia Popa)
  5. Jurnalul National, 27 mai 2009, **Savantii romani studiaza clipa zero a Universului**, Anca Aldea (Lucia Popa)
  6. Jurnalul National, 15 septembrie 2009, **Telescop submarin cu inteligenta romaneasca**, Anca Aldea (Lucia Popa)
  7. Revista Femeia, septembrie 2009, (Lucia Popa)
  8. BE Roumanie numero 6 - 29 octobre 2009, Bulletin Electronique du Service de Cooperation et d'Action Culturelle de l'Ambassade de France a Bucarest  
[http://www.bulletins-electroniques.com/be\\_roumanie\\_006.htm](http://www.bulletins-electroniques.com/be_roumanie_006.htm)  
**Quelques contributions de la Roumanie au Programme ASPERA (Vlad Popa)**

9. - Bulletin Electronique du Service de Cooperation et d'Action Culturelle de l'Ambassade de France a Bucarest, BE Roumanie numero 4 - 17 juin 2009

[http://www.bulletins-electroniques.com/be\\_roumanie\\_004.htm](http://www.bulletins-electroniques.com/be_roumanie_004.htm)

- CONFERENCES, DISTINCTIONS, EVENEMENTS DIVERS

- Atelier scientifique Franco-Roumain : "Croissance et proprietes fonctionnelles de films minces et nanostructures",

<http://www.bulletins-electroniques.com/actualites/59520.htm>

- Participare la dezbateri radiodifuzate / televizate

1. Radio Bucuresti (Radio Romania Regional), **Romania se prezinta**, 5 septembrie 2009 (Vlad Popa, realizator Andrei Dorobantu)
2. Radio Bucuresti (Radio Romania Regional), **Pasaport pentru stiinta**, 22 octombrie 2009 (Vlad Popa, realizator Andrei Dorobantu)
3. Prezentarea laserului in femtosecunde de 15 TW in cadrul emisiunii „Cultura fierbinte” la TVR Cultural, interviu televiziune Pitesti
4. Participare la dezbateri tematica „Atunci si Acum” referitoare la cercetarea stiintifica care a fost organizata la TVR 1 (F. Spineanu).
- 5 Radio Bucuresti, „Romania se prezinta”, (Cristian Ruset, realizator Andrei Dorobantu)

### **Surse de informare si documentare din patrimoniul stiintific si tehnic al INCD**

Acces la baze de date internationale ISI Thompson, SCOPUS, programul national ANELIS, Biblioteca Nationala de Fizica, numeroase carti si reviste de specialitate



## Concluzii

In anul 2009 Institutul de Fizica Laserilor Plasmei si Radiatiei a continuat programul de cercetare prin proiectele finantate din Planul National de Cercetare-Dezvoltare, Programul Nucleu precum si din proiecte internationale finantate din fonduri publice. Cu toate ca au existat mari probleme de finantare, cercetarile efectuate s-au realizat la un inalt nivel stiintific, nivel atestat de numarul de publicatii, participarile la conferintele internationale de specialitate, patente acordate dar si prin parteneriatele internationale mari in care suntem implicati (LASERLAB, EURATOM, ELI, etc.).

**Realizarea a 217 lucrări științifice/tehnice in reviste de specialitate cotate ISI avand un factor de impact cumulat de 365 puncte, acumularea unui numar de 2801 citari (fara autocitari) in fluxul international principal ale revistelor ISI precum si acordarea a 6 brevete de inventie arata ca institutul se afla pe un trend stiintific ascendent si, in conditiile unei finantari ritmice si suficiente, ar avea perspective de dezvoltare foarte bune.**

Totusi, proiectia rezultatelor viitoare trebuie sa tina cont de faptul ca, in mod specific in cercetare, rezultatele pe anul 2009 oglindesc finantarea pe anul 2008 iar rezultatele asteptate pe anul 2010 depind de finantarea pe anul 2009 (care a fost -30% fata de anul 2008).

### Perspective / Prioritati pentru anul in curs

Perspectivile de dezvoltare a activitatilor de cercetare in Institutul de Fizica Laserilor Plasmei si Radiatiei sunt deosebite. In anul 2010 vor avea loc doua evenimente majore cu impact asupra domeniilor de cercetare acoperite de INFLPR:

1. Dezvoltarea Infrastructurii de Cercetare (Capacitati Mari) prin demararea finantarii proiectului CETAL care are ca obiectiv principal construirea in INFLPR a unui laser de mare intensitate (clasa PW)
2. Participarea la proiectul pan-european Extreme Light Infrastructure ELI, cea mai mare facilitate internationala de

laseri de mare intensitate, proiect la care INFLPR are o contributie importanta.

In afara participarii la aceste doua proiecte mari, INFLPR continua sa aiba cea mai mare contributie la programul international EURATOM in domeniul cercetarilor de fuziune nucleara.

Decizia de a finanta proiectul CETAL si de a demara faza preparatorie a ELI-NP precum si decizia de a continua finantarea programului EURATOM contureaza clar prioritatile INFLPR:

- Cercetari in domeniul laserilor de mare intensitate,
- Cercetari in domeniul plasmelor de fuziune (EURATOM),
- Cercetari in domeniul nano (nanofotonica, nanotehnologii, nano-biofotonica, etc. ).
- Cercetari in domeniul Stiintelor Spatiale.

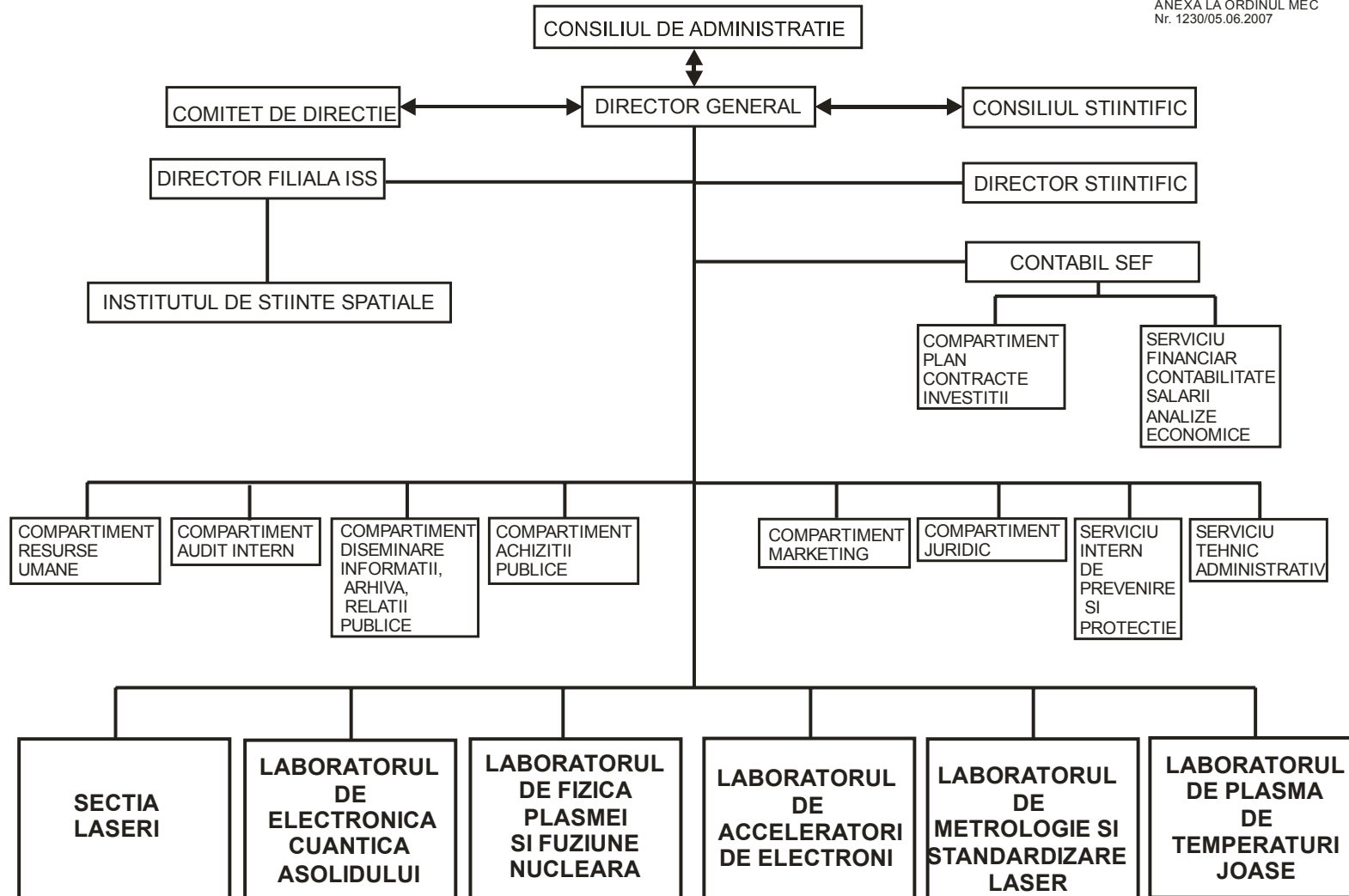
De asemenea acordam toata atentia finalizarii unor proiecte incepute in anii anteriori si a unor colaborari necesare realizarii obiectivelor strategice, ca:

- Finalizarea proiectului **CAPACITATI-Multitera** prin dotarea cu echipamente auxiliare necesare pentru experimente folosind sistemul laser de mare putere in femtosecunde. Demararea unor experimente de radiatie **laser X** folosind laserul in femtosecunde cu putere de 15 TW.
- Implicarea in colaborare cu institutii din strainatate in cercetari pentru dezvoltarea laserilor cu putere multi-PW.
- Demararea proiectului **POSCCE-2-O2.1.2: ISOTEST** – „Facilitate pentru diagnoza de fascicul laser si caracterizare/certificare ISO a comportarii componentelor optice/materialelor sub actiunea fasciculelor laser de mare putere”.

# Anexa 1. INFLPR Organigrama 2009

STRUCTURA ORGANIZATORICA A INSTITUTULUI NATIONAL DE CERCETARE DEZVOLTARE  
PENTRU FIZICA LASERILOR, PLASMEI SI RADIATIEI

ANEXA LA ORDINUL MEC  
Nr. 1230/05.06.2007



Anexa 2. Venituri

Nr. Crt.	Numarul proiectului/ contractului	Denumirea proiectului/ contractului	Valoare	Sursa de finantare
1.	Poz 10 si 11 HG	Instalatii de Interes National	468.346,73	Buget de stat
2.	51-007	Obtinerea de amidonuri modificate prin tehnologie neconventionala cu aplicabilitate in industria alimentara (AMIR)	313.381,00	Buget de stat
3.	71-007	Materiale de tip Eulytite pentru detectia de radiatii (MATEUL)	40.050,00	Buget de stat
4.	71-055	Sistem de monitorizare a nivelelor de iradiere, Gamma, Neutroni si contaminare alfa-beta, cu teletransmisia datelor, pentru zone de risc radiologic (SMCRCT)	253.603,00	Buget de stat
5.	21-025	Cresterea performantelor de conversie a gazelor acide din gazele de ardere industriale prin tratament combinat cu electroni accelerati si microunde. (GAZ-EA-MU).	351.050,00	Buget de stat
6.	61-9	StadiAlizare si monitorizare imunologica in melanomul malign cutanat – metode inovative de diagnostic (SIMIMID)	124.432,00	Buget de stat
7.	51-101	Supliment alimentar natural cu proprietati antistress. (BlocStress)	287.658,00	Buget de stat
8.	31-061	Conditionarea in diferite forme a extractelor vegetale standardizate si caracterizarea lor fitochimica, biologica si microbiologica. (FITODEC).	54.109,00	Buget de stat
9.	12-135	Nanofosfori cu conversie superioara pompata in infrarosu pentru aplicatii in biologie si medicina / BIONANOFOSFOR	177.899,00	Buget de stat
10.	12-106	Surse fotonice Coerente cu Emisie Multipla pentru Tehnica de Afisare cu Laser si Depistarea si Tratamentul unor TesutUri Tumorale / MULTILASER	177.899,00	Buget de stat
11.	12-105	Noi materiale nelinere laser pentru generarea eficienta de emisie fotonica coerenta in domeniul albastru- ultraviolet apropiat /NCBUV	177.899,00	Buget de stat
12.	72-150	Reducerea efectelor poluante produse de autovehicule prin utilizarea echipamentului laser pentru initierea aprinderii amestecului carburant in motoarele termice /SAL	168.801,00	Buget de stat
13.	62-060	Nanoparticule biospecifice destinate laboratoarelor de	102.437,00	Buget de stat

		cercetare si analize biomedicale / NANOBIO		
14.	62-055	Aplicatii biomedicale ale spectroscopiei THz: Diagnosticarea precoce a cancerului /THZ	20.000,00	Buget de stat
15.	12-089	Elemente optice de infrarosu si puncte cuantice bazate pe sticle calcogenice/ INFODOT	12.995,00	Buget de stat
16.	490	Studii privind posibilitatea obtinerii unei noi clase de nanofosfori oxidici cu structura de langasit / cod proiect ID 812	87.972,84	Buget de stat
17.	491	Cercetari de noi materiale si procese nelinere pentru generarea eficienta de radiatie laser in domeniul spectral albastru –violet - /Cod proiect ID 248	94.537,98	Buget de stat
18.	503	Efecte de structura, dimensionalitate si distributie asupra starilor si interactiilor cuantice si proceselor de emisie si generare de caldura in materiale active fotonice/ cod proiect ID 1240	105.042,21	Buget de stat
19.	214	Noi sisteme laser nelinere pentru generarea eficace de emisie laser in domeniile vizibil si ultraviolet apropiat -ELVUV	10.435,00	Buget de stat
20.	12-084	APhoS	140.762,00	Buget de stat
21.	72	MIDAS	175.339,37	Buget de stat
22.	POS DRU/19/1.3/G/11105	DESCOPERA	261.702,58	Fonduri structurale
23.	12-128	Procese si dispozitive pe baza de straturi subtiri oxidice si polimerice pentru electronica si optoelectronica transparenta.	20.874,00	Buget de stat
24.	72-226	Procesare cu plasma pentru cresterea duratei de viata a cateterelor de endoprotezare ureterala	164.085,00	Buget de stat
25.	72-225	Metode spectroscopice pentru controlul procesarii cu plasma de presiune atmosferica a materialelor sensibile la temperatura	168.801,80	Buget de stat
26.	11-033	Nanostructuri carbonice bidimensionale, sinteza in plasma si potential aplicativ	412.195,71	Buget de stat
27.	11-032	Filme subtiri organice pentru electronica transparenta si flexibila	264.472,00	Buget de stat
28.	482	Plasme reci la presiune atmosferica, fenomene de descarcare si proprietati	57.773,21	Buget de stat
29.	72-191	Metode nucleare complementare celor conventionale pentru analiza si caracterizarea	9.555,00	Buget de stat

		nanomaterialelor		
30.	493	Noi tehnici de polimerizari de suprafata in descarcari electrice de interes in sinteza si diagnostica straturilor subtiri polimerice	128.676,70	Buget de stat
31.	187	Identificarea si controlul de noi procese plasmochimice in sursele de plasma analitica din sistemele de diagnostica cu inalta rezolutie prin spectroscopie optica si de masa a materialelor avansate	60.000,00	Buget de stat
32.	42-129	ANTIBIOFILMS Obtinerea de noi materiale antimicrobiene pentru controlul infectiilor nosocomiale	195.000,00	Buget de stat
33.	71-134	Noi tipuri de celule flexibile pe baza de compusi CIS obtinuti prin electrodepunere	168.719,00	Buget de stat
34.	72-223	Cercetari avansate pentru producerea acoperirilor combinatoriale de interes pentru fuziune	168.801,00	Buget de stat
35.	280	Tehnologie pentru depunere antireflex si "Protective Diamond Like Carbon" DLC pe elemente optice	80.133,00	Buget de stat
36.	31-073	Metode si tehnologii inovative de gestionare si denocivizare a deeurilor periculoase si tratare a levigatelor cu continut de elemente toxice, provenite din metalurgia metalelor neferoase grele	65.575,00	Buget de stat
37.	71-032	Valve de spin: de la metode combinatorii de procesare la proprietati performante	107.304,00	Buget de stat
38.	RP 10	Interactia jeturilor de plasma cu cristale formate in plasma: un studiu experimental nou care face legatura intre domeniile plasmelor puternic cuplate si al plasmelor puternic ionizate	123.200,00	Buget de stat
39.	11-043	SIMPROC	132.179,00	Buget de stat
40.	81-032	VEECS	34.520,00	Buget de stat
41.	81-049	REEHUC	421.795,00	Buget de stat
42.	81-039	SPACE 21	49.993,00	Buget de stat
43.	81-013	PLURIBUS	208.584,00	Buget de stat
44.	81-057	PTSMGAL	97.393,00	Buget de stat
45.	71-134	ELECTROEXCEL	67.448,00	Buget de stat
46.	81-001	FORMUAV	170.000,00	Buget de stat
47.	31-054	SISMET	91.968,00	Buget de stat
48.	81-030	PVCELSA	71.643,00	Buget de stat
49.	82-084	COMPOSAT	60.000,00	Buget de stat
50.	82-071	ELICOPTER	22.392,00	Buget de stat
51.	91-070	ROCOSMICS	268.457,00	Buget de stat
52.	81-043	NUFAR	368.684,00	Buget de stat
53.	81-021	HELIOTER	280.402,00	Buget de stat

54.	81-054	GRIDCERT	173.022,00	Buget de stat
55.	81-010	GAMMATEL	219.240,00	Buget de stat
56.	81-009	SAFIR	258.359,00	Buget de stat
57.	81-053	TERASCAN	125.462,00	Buget de stat
58.	81-044	CORA	297.645,00	Buget de stat
59.	82-077	GRAPH	98.045,00	Buget de stat
60.	82-099	OPTOGATRON	206.197,00	Buget de stat
61.	82-075	PROCEEX	138.004,00	Buget de stat
62.	539	NEUTRINI	87.530,90	Buget de stat
63.	39 N	nucleu	3.829.500	Buget de stat
64.	2S-P3	Evaluarea potentialului romanesc de cercetare in domeniul fizicii si elaborarea strategiei nationale de cooperare internationala. (ISS)	3.000,00	Buget de stat
65.	12 EU	CONDEGRID	168.000,00	Buget de stat
66.	11 EU	IMOTEP	474.000,00	Buget de stat
67.	98047/2007	SURE	350.099,37	Buget de stat
68.	98051/2007	PLANC	486.879,57	Buget de stat
69.	98050/2007	GRID	477.529,17	Buget de stat
70.	98049/2007	KEEV	652.372,00	Buget de stat
71.	98048/2007	ECSTRA	759.225,48	Buget de stat
72.	245	Cresterea eficientei de depoluare a apelor reziduale prin descarcari electrice.	5.741,00	Buget de stat
73.	AS 2	Studiul influentei temperaturii substratului in timpul depunerii asupra formarii de aliaje stabile Be/C, Be/W	153.500,00	Buget de stat
74.	AS 3	Studiul formarii sistemelor ternale Be-C-W folosind metoda arcului termoionic in vid; influenta oxigenului in acest proces	153.500,00	Buget de stat
75.	AS 4	Influenta geometriei de castelare si a materialului depus in interiorul canelurilor asupra curatirii cu torte de plasma	169.000,00	Buget de stat
76.	BS 16	Termografie activa de infrarosiu prin metoda fototermala pulsata	111.320,00	Buget de stat
77.	TT 19 5.1b	Producerea acoperirilor de beriliu pentru placile marker pentru proiectul "perete de tip iter"	67.768,00	Buget de stat
78.	TT 19 Order	Producerea acoperirilor de beriliu pentru placile de inconel pentru proiectul "perete de tip iter"	4.488,00	Buget de stat
79.	71-045	NANOPIN	69.678,00	Buget de stat
80.	11-060	FOTONANOFIR	17.500,00	Buget de stat
81.	51-027	DECOPLASM	130.000,00	Buget de stat
82.	12-112	TED	162.567,00	Buget de stat
83.	19	Noi structuri pulsate cu tensiuni inalte, generatoare de jeturi de plasma rece la presiunea atmosferei terestre, cu aplicatii bio-medicale	178.000,00	Buget de stat
84.	34	Sistem plasmocatalitic pentru oxidarea totala a compusilor	177.000,00	Buget de stat

		organici volatili		
85.	549	Controlul proprietatilor straturilor subtiri nano-structurate obtinute prin pulverizare magnetron si implantare ionica	111.869,94	Buget de stat
86.	573	Evolutia neliniara cuasi-coerenta si transport in turbulenta fluidelor	74.579,96	Buget de stat
87.	557	Investigarea prin metode de teorie de camp a structurilor si a organizarii in fluide si plasma	71.428,60	Buget de stat
88.	BS-1	CAPACITATI, Modul III, Euratom – Fuziune	226.500,00	Buget de stat
89.	BS-2	CAPACITATI, Modul III, Euratom – Fuziune	192.600,00	Buget de stat
90.	BS 14	CAPACITATI, Modul III, Euratom – Fuziune	192.500,00	Buget de stat
91.	BS 13	CAPACITATI, Modul III, Euratom - Fuziune	75.500,00	Buget de stat
92.	AS 6	CAPACITATI, Modul III, Euratom – Fuziune	113.100,00	Buget de stat
93.	AS 7	CAPACITATI, Modul III, Euratom – Fuziune	113.100,00	Buget de stat
94.	BS - 9.1	CAPACITATI, Modul III, Euratom – Fuziune	120.700,00	Buget de stat
95.	BS 5.1	CAPACITATI, Modul III, Euratom – Fuziune	103.500,00	Buget de stat
96.	BS 7A	CAPACITATI, Modul III, Euratom – Fuziune	132.700,00	Buget de stat
97.	BS 12	CAPACITATI, Modul III, Euratom – Fuziune	56.655,00	Buget de stat
98.	AS 1	CAPACITATI, Modul III, Euratom – Fuziune	42.201,00	Buget de stat
99.	TT12 51b	CAPACITATI, Modul III, Euratom - Fuziune	58.351,00	Buget de stat
100.	TT 12 order	CAPACITATI, Modul III, Euratom - Fuziune	6.580,00	Buget de stat
101.	70	PROFILIFT	173.850,00	Buget de stat
102.	71	TEWALAS	108.300,00	Buget de stat
103.	173	MULTITERA	1.092.800,00	Buget de stat
104.	207	BRANCUS	10.619,45	Buget de stat
105.	187	NANO-BIO-LAS	30.112,59	Buget de stat
106.	108	BLUEBRONZE	70.786,00	Buget de stat
107.	Gar 5	GAR	17.743,11	Buget de stat
108.	71-103	CERNUCL	54.344,00	Buget de stat
109.	72-162	MINNA	26.317,00	Buget de stat
110.	71-040	MATPEROL	32.000,00	Buget de stat
111.	11-061	PROLAF	73.915,00	Buget de stat
112.	71-043	ECOPAM	32.606,00	Buget de stat
113.	72-177	MOMAOPT	30.458,00	Buget de stat
114.	72-149	HETOX	49.534,00	Buget de stat
115.	12-086	OMICRON	47.500,00	Buget de stat
116.	71-111	FOTOPOL	228.967,00	Buget de stat
117.	81-018	DIG	699.898,00	Buget de stat
118.	22-132	VOLTERA	15.975,70	Buget de stat
119.	12-088	NCOMLAS	132.567,00	Buget de stat
120.	71-081	TEXTURO	48.909,00	Buget de stat



121.	71-132	LASER CAP	172.085,00	Buget de stat
122.	22-090	NANOHEALTH	26.016,00	Buget de stat
123.	71-092	CLICOPOL	52.000,00	Buget de stat
124.	71-135	MICROWELD	89.755,00	Buget de stat
125.	71-125	MAVIAT	420.256,00	Buget de stat
126.	71-083	BIMAPAFLU	255.868,00	Buget de stat
127.	71-131	OCEMA	26.028,00	Buget de stat
128.	21-021	IFIPVCELLS	457.935,00	Buget de stat
129.	71-138	LASERBIOCER	50.721,00	Buget de stat
130.	71-127	SPINVALVE	59.665,00	Buget de stat
131.	52-139	AGROFERTIGLAS	21.141,00	Buget de stat
132.	31-020	GEOLASDATA	373.159,00	Buget de stat
133.	11-031	LARFMED	342.501,30	Buget de stat
134.	32-148	IDEA	198.302,00	Buget de stat
135.	3EU-ELI	ILE-FP	300.000,00	Buget de stat
136.	11-006	NEUROSENSE	21.497,27	Buget de stat
137.	11-030	FEMAT	405.765,00	Buget de stat
138.	71-005	PRESTO	31.643,00	Buget de stat
139.	11-010	METALASER	85.666,00	Buget de stat
140.	72-230	SCRILAM	10.254,00	Buget de stat
141.	7-013	NANOSPAP	199.800,00	Buget de stat
142.	234	FIBROLAS	55.500,00	Buget de stat
143.	12-111	FUNFOTON	177.899,00	Buget de stat
144.	11-044	QUANTGRID	62.705,00	Buget de stat
145.	61-023	SENSO	220.997,00	Buget de stat
146.	71-037	MOD-SPECTRA	50.720,00	Buget de stat
147.	41-018	PALIRT	320.627,00	Buget de stat
148.	72-219	LSCEM	168.801,00	Buget de stat
149.	11-027	MAST	365.008,00	Buget de stat
150.	81-053	TERASCAN	89.430,00	Buget de stat
151.	72-212	MAC	9.292,00	Buget de stat
152.	12-098	DFSAT	31.500,00	Buget de stat
153.	71-110	BIOSTIMP	70.375,00	Buget de stat
154.	71-031	NANOCOMSIT	18.115,00	Buget de stat
155.	71-097	BIOMION	54.344,00	Buget de stat
156.	71-038	TIMAT-AUTO	14.294,00	Buget de stat
157.	7-012	MNT-ERA	370.000,00	Buget de stat
158.	21-030	CEREPC	35.000,00	Buget de stat
159.	22-079	PEMREFACET	23.000,00	Buget de stat
160.	32-168	LOTUS	20.000,00	Buget de stat
161.	247-E	EUREKA	100.000,00	Buget de stat
162.	12-129	NANOSPIN	10.949,00	Buget de stat
163.	2S-P3	Evaluarea potentialului romanesc de cercetare in domeniul fizicii si elaborarea strategiei nationale de cooperare internationala. (INFLPR)	3.000,00	Buget de stat
164.	552	Cercetari avansate privind sinteza de filme subtiri feroelectrice de nbt - bt obtinute prin depunere laser pulsata asistata de o descarcare in radiofrecventa	129.727,12	Buget de stat
165.	349	Straturi subtiri nanocomposite percolative de tip polymer/nanoparticule de carbon sintetizate prin tehnica de piroliza laser, pentru aplicatii	252.000,00	Buget de stat

		avansate in electrotehnica		
166.	431	Cercetari avansate privind sinteza prin piroliza laser a nanocompozitelor de dimensiuni mici: sisteme de nanoparticule sn/fe si sno/feo	207.200,00	Buget de stat
167.	268	Studiul metodelor de nanostructurare determinista	178.313,50	Buget de stat
168.	RP6	Reintegrare	122.200,00	Buget de stat
169.	568	Modularea dimensiunilor si formei doturilor cuantice de ge realizate prin tehnica litografierii cu particule coloidale	87.250,68	Buget de stat
170.	572	Lumina ghidata si amplificata de lumina - structuri dinamice si permanente	88.164,04	Buget de stat
171.	558	Opacitatea plasmei din proeminenta solara :modele atomice si moleculare	110.043,26	Buget de stat
172.	421	Depunerea de electrozi transparenti performanti pentru celule solare prin metoda ablatiei laser combinatorii	281.977,00	Buget de stat
173.	652	Procesarea inovativa a biomaterialelor cu ajutorul radiatiei laser pentru administrarea controlata de medicamente si dispozitive de detectie	101.103,12	Buget de stat
174.	511	Acoperiri polimerice nanostructurate sintetizate prin tehnologii laser pulsate pentru implanturi biomimetice avansate si administrarea dirijata de medicamente	91.911,93	Buget de stat
175.	547	Fotocatozi metalici de inalta fiabilitate obtinuti prin tehnologii laser pulsate pentru laser cu electroni liberi	78.781,70	Buget de stat
176.	473	Filme ultradure de ZRC pentru aplicatii in electronica cu vid.	108.863,11	Buget de stat
177.	BS4-A/80%	CAPACITATI, Modul III, Euratom - Fuziune	133.056,00	Buget de stat
178.	BS4-B/80%	CAPACITATI, Modul III, Euratom - Fuziune	150.293,53	Buget de stat
179.	39N	LAPLAS NUCLEU	19.100.940,00	Buget de stat
180.	FP 7 UE	KM 3 NET	24.303,09	Venituri realizate prin contracte de cercetare dezvoltare internationale finantate din fonduri publice
181.	212105	ELI PP GA	88.742,72	
182.	222317	CURARE GA	159.564,02	
183.	033297	3D-DEMO.STRP	123.805,39	
184.	FP 6	EURATOM Act ad. 5/2009	1.171.843,20	
185.	01786	COOP-CT-2005	87.079,62	
186.		NATO-UE	60.695,23	
187.	FP 7 UE	BONSAI LSHB - CT	28.758,72	
188.	FP7 UE	LASERLAB	6172,95	
189.	ASR RESRO		12696	
190.	LASERACT		9460,39	
191.	Grant Agreement nr.	Femas	4.038,30	

	224752			
192.	Garching	C-da economica	30.998,12	
193.	IEIA	ECONOMICE	5.530,99	
194.	SHIPILLA	ECONOMICE	15.147	
195.	26.09.02	Tun electronic cu incalzire directa. Ansamblu componente de translatie	8.403,36	Venituri realizate din activitati economice (servicii, microproductie , exploatarea drepturilor de proprietate intelectuala).
196.	Cda 260	Incapsulare filtre sinterizate si asistenta montaj	2.605,04	
197.	Apel laser	Masurari spectrale asupra emisiei unui laser cu solid pompat cu dioda laser cu dublarea de frecventa; Determinarea amestecului optim pentru realizarea unui laser cu CO2 de mare putere cu excitare in radiofrecventa; Calculul sistemului optic pentru focalizarea intr-un spot focal, circular de diametru minim a fasciculului unui laser cu excimeri cu emisie in ultraviolet.	58.823,53	
198.	Elur impex srl	c-da economica	28.846,21	
199.	ALTE VENITURI EC	ECONOMICE	113.874,19	
200.	TOTAL		52.151.917,98	

### Anexa 3. Structura personalului de cercetare

Total personal	Total personal cu studii superioare atestat	Personal cercetare dezvoltare atestat cu studii superioare							Personal auxiliar
		CSI	CSII	CSIII	CS	ASC	IDT	IDTI	
430	297	55	23	65	61	82	10	1	133

Numar de doctoranzi si masteranzi care lucreaza in unitatea de cercetare-dezvoltare la data completarii formularului: 95 doctoranzi; 7 masteranzi

In anul 2009 au participat la cursurile de perfectionare, in tara si in strainatate, 24 de persoane:

Nr. crt.	Denumire curs	Tara/Oras	Nume si prenume, functia
1	1 <sup>st</sup> Winter School on Practical Quantum cryptography”	Elvetia	Dr. Mihaela Stoica,CSII
2	Cursuri de pregatire privind tehnologia pulsurilor laser intense ultrasonice	Franta	Ionel Laura - AC Jipa Florin - ACS;
3	Differential Mobility Analyzer (DMA)	Germania	Viespe Cristian - CS, Ionut Nicolae -CS
4	Cursuri de specializare in domeniul generarii de pulsuri laser ultrasonice	Franta	Toma Octavian - CSIII, Sandu Oana Valeria - AC, Matei Consuela Elena - CS
5	Stagiu de pregatire STSM pe tema „Studies about the generation and Characterization of micro-droplets covered with layers of immiscible liquids”, Institutul Max Planck	Germania	Viorel Nastase-ACS
6	Cursuri ICTP in domeniul „Introduction to Optofluidics”,	Trieste, Italia	Adriana Smarandache -CS, Nastase Viorel - ACS
7	Stagiu de pregatire Erasmus pe tema ”Bioelectrochemistry of antibacterial compounds for nanobiosensor development”	Coimbra, Portugalia	Militaru Andra - ACS
8	Curs de perfectionare „Managementul Financiar al fondurilor structurale	Cehia	Olteanu Alexandra, Econ., Raicu Adrian - ACS
9	PHYSWARE - International Workshop on Low-Cost Equipment and Appropriate Technologies that Promote Undergraduate Level, Hands-on Physics Education throughout the Developing World	Trieste, Italia	Adelina Sporea
10	Teaching and learning with Multi User Virtual Environments	Italia	Adelina Sporea
11	Analysis, evaluation and design of hands-on workshops in Multi-User Virtual Worlds	Italia	Adelina Sporea
12	FORMATOR	Italia	Adelina Sporea
13	Winter College on Optics in Environmental Science	Italia	Laura Mihai
14	International Nathiagali Summer College	Pakistan	Laura Mihai
15	International Training Workshop on Laser Technology and Application	Wuhan	Laura Mihai

Nr. crt.	Denumire curs	Tara/Oras	Nume si prenume, functia
1	Curs autorat stiintific	Univ. Bucuresti	Duta Liviu - ACS, Serban Natalia - ACS, Visan Anita - ACS
2	Curs de perfectionare „Expert accesare fonduri structurale si de coeziune europene	Constanta	Raicu Adrian - ACS
3	Curs limba germana, Institutul Goethe	Bucuresti	Constantinescu Vlad - CS Petcu Amalia - econ / Raicu Carmen - ing. / Leonte Veronica, Popescu Aurelia - cont
4	Curs de perfectionare ”Codul fiscal si contabilitate. Noi reglementari”	Sinaia	

## Anexa 4 Lista echipamentelor performante si facilitatile de cercetare speciale

### a. Echipamente corporale

- Laser cu excimeri KrF\* ( $\lambda=248$  nm,  $\tau$ FWHM  $\geq 25$  ns) Lambda Physik COMPexPro 205, Poate functiona cu amestec activ KrF\* sau XeCl\*. Genereaza pulsuri cu durata  $\tau$ FWHM = 25 ns, cu o energie pe puls de pana la 700 mJ la o frecventa de repetitie de pana la 50Hz
- Laser cu excimeri M1071 KrF\* ( $\lambda=248$  nm,  $\tau$  FWHM  $\geq 7$  ns), cu amestec activ KrF\* sau XeCl\*, la frecventa de repetitie de pana la 10 Hz, energie pe puls de pana la 150 mJ.
- Microscop optic NU2 Zeiss Mod de operare in reflexie, transmisie, transmisie + reflexie,
- Spectrofotometru UV-VIS GBC Cintra 10e Fascicul dublu, eficienta inalta, cu sfera integratoare pentru masuratori in modul de reflexive, acopera un domeniu spectral extins, de la 190 la 1,200 nm
- Spectrometru si microscop FTIR SHIMAZU 8400S Interferometru Michelson, sistem dinamic de aliniere, domeniu: 7800  $\text{cm}^{-1}$  – 350  $\text{cm}^{-1}$ ,
- Spectrometru HORIBA Jobin Yvon iHR550 prevazut cu detector Horiba Jobin Yvon i-Spectrum ICCD Rezolutie 0.025 nm, poarta minima 5 ns
- Sistem TKA Pacific UP/UPW6 de ultrapurificare a apei Calitatea apei ultra pure: conductivitate (0.055 $\mu\text{S/cm}$ ), continut de bacterii (1 CFU/ml), TOC 1: 10 ppb
- Camere de reactie (2 buc.)
- Amplificator lock-in, Model SR 830 DSP, Stanford Reserach System
- Sistem magnetron sputtering, Model 32-165 RBD-Surface analysis system engineering
- Montaj m-line pentru senzori optici
- Sonde pentru masuratori electrice in patru puncte (insitu si exterior) Keithley
- Laser cu Nd-YAG pulsat Surellite II, ("Continuum", USA), Armonici: 650 mJ pentru  $\lambda=1064$  nm, 350 mJ pentru  $\lambda=532$  nm, 160 mJ pentru  $\lambda=355$  nm si 100 mJ pentru  $\lambda=266$  nm, durata de puls de 5-7 ns, rata de repetitie variabila de 1-10 Hz;
- Laser cu Nd-YAG pulsat Surellite II, ("Continuum", USA), Armonici: 650 mJ pentru  $\lambda=1064$  nm, 350 mJ pentru  $\lambda=532$  nm, 160 mJ pentru  $\lambda=355$  nm si 100 mJ pentru  $\lambda=266$  nm, durata de puls de 5-7 ns, rata de repetitie variabila de 1-10 Hz;
- Laser cu excimeri ArF, 193 nm;
- Microscop de Forta Atomica (AFM) Nomad<sup>TM</sup> (Quesant) ,Cu doua moduri de scanare: contact si non-contact
- Microscop de Forta Atomica (AFM) XE100 Park; moduri de scanare: contact si non-contact
- AFM - Cap masura in lichid ,Pentru masuratori in mediu lichid, contact si non-contact
- Difractometru de raze X DRON, Pentru pulberi
- Difractometru de raze X Panalytical, Pentru filme subtiri
- Incinta de depunere, Dotata cu sisteme de depunere multitinta si curgere de gaz controlata
- Incinta de depunere MECA 2000, Dotata cu echipament de vid rezistent la coroziune si curgere de gaz controlata
- Incinta de depunere, Adaptata pentru depuneri de polimeri, proteine, materiale bio, sub forma de filme subtiri prin metoda MAPLE; dotata cu echipament de vid
- Mass flow controler 4 canale, Permite controlul si reglajul presiunii gazului in timpul depunerii
- Sistem multi-tinta x 2 buc, Format din 4 suporturi pentru tinte
- Suport substrat x 3 buc, Incalzire controlata, in gaz reactiv, pina la 850 °C
- Generator de radiofrecventa si instalatie de descarcare, Cu configuratie de doua incinte, capabila sa genereze fascicul de specii excitate si ionizate
- Analizor punte impedanta, Permite masuratori electrice in intervalul de frecvente 40 Hz -10 MHz, la temperatura camerei
- Sistem de test feroelectric, Histerezis si curenti de scurgere
- Camera ICCD, Gate 2 ns, 1024x1024 pixeli, 180-850 nm,
- Spectroelipsometru, Echipat cu lampa cu Xe care genereaza radiatie in intervalul 250 - 1700 nm; monocromator HS-190,

- Microscop cu scanare prin efect de tunel – STM, Scaneaza probe conductoare pe o aria maxima  $500 \times 500 \text{ nm}^2$ ; inaltimea maxima 200 nm;
- Sistem spectrometrie de masa a ionilor secundari (SIMS), Rezolutie in adancime 1 nm, rezolutie laterala sute de nanometri
- Sistem de depunere MAPLE, Obtinerea de filme subtiri polimerice si biologice
- Instrument generare picaturi ML560 Pump Hamilton, Precizie pozitionare - 1 nm, Volum dispersat 1 femto litru, utilizabil pentru materiale lichide, in particular biologice.
- Echipament spectroscopie fotoacustica Quantum Northwest PAS 1000, Pentru masurat probe lichide si gazoase; camera de masura proprie; sistem de detectie propriu.
- Laser cu NdYAG Surelite II, 680 mJ, 10Hz, 1064 nm, 532 nm, 355 nm, 266 nm
- Laser cu solid OPO Panther, Domeniu acordabil 215 nm- 2500nm,  $6 \text{ cm}^{-1}$  largime banda
- Laser pulsant cu azot, Emisie la 337.1 nm, durata pulsului 700 psec, frecventa de repetitie ajustabila (1 – 50) Hz, puterea maxima / puls 100kW
- Laser cu coloranti, Domeniul spectral de emisie - vizibil, durata pulsului 700 psec., frecventa de repetitie a pulsurilor – reglabila intre 1-50 Hz, puterea minima / puls – 10 kW, indiferent de lungimea de unda
- Osciloscop digital Tektronix DPO 7254, Banda 2.5GHz, 4 canale de achizitie, rata samplare 400GS/sec/canal
- Spectrometru absorbtie UV-VIS NIR Perkin-Elmer Lambda 950, domeniu spectral 175 nm - 3.3  $\mu\text{m}$ , functionare absorbtie –transmisie; cuplabil la PC.
- Spectrograf SpectraPro, seria 2750, Acton Research, Distanta focala: 750 mm, Apertura f/9.8, Domeniu mecanic de scanare: 0-1400 nm, Dispersie liniara: 0.4 nm/mm, Acuratete: +/-0.1 nm, Pas: +/-0.005 nm; rezolutie 0.001nm
- ICCD camera - model PIMAX1024 Princeton Instruments, 25 mm Gen II, RB, Fast gate, phosphor P43, 1024 x 256 matrice detectori, 185-900 nm domeniu spectral, PTG controller
- Laser Nd:YVO<sub>4</sub>, 1064 nm, 532 nm, 355 nm; putere medie > 2 W, 500 kHz
- Laser Nd:YAG, 1064 nm, 532 nm, 355 nm si 266 nm; 90-600 mJ/puls; 5 ns; 10 Hz
- Sistem motorizat deplasare lentil focalizare, Physik Instrumente M-112K003 si controller tip Mercury II, rezolutie 0.0073, increment miscare minim 0.2  $\mu\text{m}$ , controller cu interfata pentru calculator si software aferent
- Sistem de deplasare tinta dotat cu masute de translatie XY motorizate VT80-HV, rezolutie +/- 0.1  $\mu\text{m}$ , pentru utilizare in vid pana la  $10^{-7}$  mbar; controller dupa cele doua axe carteziene cu interfata pentru calculator si software aferent
- Sistem de deplasare tinta de mare precizie dotat cu masute de translatie XY Linear Stage PLS-85; acuratete +/- 0.1  $\mu\text{m}$ , viteza maxima 100 mm/s, cursa translatie 120 mm, controller dupa cele doua axe carteziene cu interfata pentru calculator si software aferent
- Profilometru (rugozimetru) Tokyo Seimitsu Surfcom 130 A
- Simulator solar LS0106 cu filtru
- Aparat de masura a rezistivitatii cu proba in patru puncte, SMR-232-1000, domeniul de masura 0.0-1000  $\Omega/\text{sq}$ , rezolutie 0.4  $\Omega/\text{sq}$ , interfata RS-232 pentru conectare PC
- Timer/Counter/Analyzer CNT-90, Sistem folosit la masurarea deviatiei de frecventa in cazul senzorilor cu unde acustice de suprafata; gama de frecventa 0-300 MHz
- Differential mobility analyzer Grimm (selector de particule 2-1000 nm)
- Sistem laser amplificator in femtosecunde cu putere pe puls de 15 TW, lungime de unda centrala 800 nm, durata de puls 25 fs, frecventa de repetitie 10 Hz
- Laser oscilator-amplificator in femtosecunde cu energie pe puls de 0.7 mJ, durata de puls 200 fs, lungime de unda centrala de 775 nm, frecventa de repetitie 2 kHz
- Laser oscilator microchip-amplificator in picosecunde, durata de puls 500 ps, energie pe puls de 20 mJ la 1064 nm, frecventa de repetitie 10 Hz, emisie si pe 532 nm si 266 nm.
- Osciloscop Tektronix cu banda de 1 GHz.
- SPIDER pentru reconstituirea profilului temporal si a distributiei de faza pentru pulsuri de femtosecunde.
- Autocorelatoare FEMTOCHROME pentru masurarea duratei de puls laser in domeniul zeci-sute de femtosecunde.
- Energimetru-powermetru OPHIR cu diferite capete de masura.
- Energimetru GENTEC pentru masurarea energiei pulsurilor de femtosecunde.
- Instalatie pentru inscriere directa de nanostructuri prin fotopolimerizare cu laser in femtosecunde.

- Instalatie pentru microprocesari cu laseri cu pulsuri ultracurte.
- Echipament complex de evaporare de straturi subtiri pentru componente optice BALZERS BA 510 / 1971;
- Echipament complex VARIAN ER 3119 EletroRava / UNIDO 1989 pentru depuneri de straturi subtiri in tehnica R.F.Magnetron Sputtering ptr. componente speciale optoelectronice,1991;
- Echipament pentru masurarea eficientei cuantice si a randamentului foto-electric pentru sisteme fotovoltaice QE 1400 / 2007.
- Laser cu CO<sub>2</sub> acordabil si stabilizat in frecventa-2 buc, Acordabil pe 57 linii de vibratie-rotatie ; Stabilitate in frecventa  $3 \times 10^{-8}$ ;Putere 2-7 W ; Uzura 30%
- Laser cu CO<sub>2</sub> acordabil si stabilizat in frecventa-Coherent,Acordabil pe 74 linii de vibratie-rotatie ; Stabilitate in frecventa  $3 \times 10^{-6}$ ;Putere 15-50W W ; Uzura 0%
- Monocromator cu retea de difractie,Lungimi de unda 0,2-22  $\mu\text{m}$ , Dispersie 400  $\text{\AA}/\text{mm}$  pentru retea D339 (75 linii/mm),Uzura 30%
- Amplificator lock-in stanford SR830 Dual Phase – 2 buc,Frecventa 0,5 – 100 kHz, Sensibilitate 100nV-500 mV, Interfata RS232 si GPIB, Uzura 5-10%
- Interferometru Möller-Wedell
- Microscop de polarizare Optika N400-POL
- Laser Yag-Nd pulsat cu armonici multiple Continuum Surelite 2
- Modulator optic spatial de faza HEO 1080P
- Adaptor optic AgilOptics
- Osciloscop Tektronix TDS 1002B
- Microscop optic cu distanta focala mare Guppy VZM200i
- Sistem detectie IR ultra sensibil (fotomultiplicator-PMT) Hamamatsu H10330-45,domeniu spectral-700nm-1400nm
- Energimetru cu 2 probe Gentec Duo,domeniu spectral 200-20 micrometri, energie 100nJ-10J
- Fotomultiplicator-gated cu accesorii (sursa alimentare) Hamamatsu H10330-45,domeniu spectral 160-900 nm, durata poarta 5 ns –10microsec.
- Laseri cu semiconductori, emisie continua (cw), 650nm , 5 mW
- Fotomultiplicatoare UV VIS,185-850 nm
- Instalatie experimentală de laborator pentru sinteza in flux cu laserul de pulberi nanometrice (1999), uzura 20%
- Sistem de control masic al debitelor de gaze (2001), uzura 5%
- Control automat al presiunii de lucru (2001), uzura 5%
- Laser CW CO<sub>2</sub>, putere maxima 1000 W ,  $\lambda=10.6\mu\text{m}$ , (1998), uzura 20%
- Laser CW CO<sub>2</sub>, putere maxima 120 W ,  $\lambda=10.6\mu\text{m}$ , (1992), uzura 30%
- Spectrofotometru Specord 75IR (1986), uzura 30%
- Spectrofotometru Specord M80 (1989), uzura 30%
- Spectrofotometru FTIR Bruker IFS 113v (up-gradare in 2002), uzura 5%
- Spectrometru Raman (2000), uzura 10%
- Baie de ultrasonare termostata cu incalzire ELMASONIC S,  $\nu =37 \text{ KHz}$ , P = 560 W,
- Cuptor Thoughtventions Unlimited LLC,  $T_{\text{Max}} = 1 \text{ 200}^{\circ}\text{C}$ ,vid si presiune controlata, debite de gaze controlabile, atmosfera oxidanta, neutra sau reducatoare
- Microscop cu electroni prin scanare (SEM) FEI QUANTA, E =50 KeV,0%
- Microscop de inalta rezolutie in camp apropiat cu scanare (SNOM) (Moduri de functionare: SNOM (transmisie si reflexie), AFM (transmisie si reflexie), Rezolutie laterala ~ 10 nm
- Laser cu fibra dopata cu Yb (1.03  $\mu\text{m}$ , pulsuri < 200 fs, energia pulsului >1 nJ, TEM<sub>00</sub>)
- Laser cu fibra dopata cu Er (1,55 $\mu\text{m}$ , pulsuri < 200 fs, energia pulsului >10 nJ, TEM<sub>00</sub>)
- Laser YAG:Nd (Pulsat, durata pulsului 3 ns, rata de repetitie 10 Hz, cu lungimile de unda 1064 nm, 532 nm, 355 nm si 266 nm; energiile pe puls 146/40/40 mJ)
- Laser He-Ne (30 mW, monomod, fascicul polarizat liniar)
- Laseri YAG:Nd (continuu, frecventa dublata, pompati cu dioda laser)
- Laser YAG:Nd (pulsat, 10 ns, 50 mJ (IR), cu dublarea frecventei (10mJ verde))
- Aparat de masura unghi contact
- Double monochromator GDM-1000,rezolutie:  $0.5 \text{ cm}^{-1}$ ; Domeniul spectral:  $8 \text{ 000 cm}^{-1}$ - $34 \text{ 000 cm}^{-1}$
- Monocromator Jarrell-Ash model 78-460, Lungime 1 m, rezolutie intre 8,2 si 32,8  $\text{\AA}/\text{mm}$  pentru diverse retele, domeniu spectral 0,25-3  $\mu\text{m}$  cu diverse retele
- Monocromator Horiba Jobin-Yvon model 1000MP, Lungime 1 m, dispersie 0,8 nm/mm, domeniu spectral 250 nm – 1100 nm, interfata USB cu calculatorul

- Spectrofotometru Cary 17, Spectrofotometru cu doua fascicule, rezolutie 0.1(UV-VIS)-3 nm (IR), 190-2600 nm
- Laser cu Nd:YAG cu emisie la 532 nm Solar TII model LF117, Emisie in pulsuri 8-20 ns, energie pulsuri 0,3-0,5 J
- Laser cu Nd:YAG cu emisie la 532 nm Solar TII model LF117, Emisie in pulsuri 8-20 ns, energie pulsuri 0,3-0,5 J
- Laser cu Ti:Safir in pulsuri Solar TII model CF131A, Acordabil, emisie in pulsuri 8-20 ns, domenii spectrale: 690-930 nm, 350-465 nm, 235-310 nm
- Lampa cu Xenon-Mercur Sciencetech model 201-1K, Putere 350 W, emisie continua
- Criostat cu He in circuit inchis Model CS202-X1.AL (IDB), Domeniu de temperatura 9-300 K, ferestre din quart transparent in UV, vizibil si NIR, controlabil prin interfata RS-232
- Multi-channel scaler Turbo-MCS (EG&G ORTEC), Nr. canale 4-16384, rata de numarare pana la 150 MHz
- Placa de achizitie MCS-PCI ORTEC, Nr. canale 4-65536, rata de numarare pana la 150 MHz
- Placa de achizitie PCI-DAS 6034 (Measurement Computing, Inc.), 16 canale, rezolutie A/D 16 biti, rata de sampling 200 kS/s
- Nisa pentru chimie Chemfree 2000, Trolu mobil, filtre (filtru carbon, prefiltru), sistem de monitorizare a filtrului
- pH-metru HI 8424 (Hanna Instruments), Domeniu de masura pH: -2 – 16, domeniu de temperatura: -20 – 120°C
- Agitator magnetic Velp Scientifica VTF, Cu incalzire si termoregulator
- Baie de apa termostata WB-52, 2 posturi, Temperatura maxima 120°C
- Etuva Binder, Temperatura maxima 300°C
- Cuptor tratamente termice, Temperatura maxima 1500°C, control automat al temperaturii
- Cuptor tratamente termice Nabertherm model LHT 02/18, Temperatura maxima 1800°C, controller temperatura cu programare curbe temperatura
- Cuptor tubular GSL 1700-80X (MTI Corporation), Temperatura maxima 1700°C, atmosfera controlabila
- Instalatie de cresteri de cristale ADL Inc., Cu incalzire prin inductie (100 kW, 130 kHz), metode de crestere Czochralski si Bridgeman
- Instalatie de uscare prin pulverizare (spray-drying) B290 in circuit inchis cu Inert Loop B295, Büchi, Capacitate de evaporare 1l/h apa, diametre particule 1-25  $\mu$ m.
- Presa isostatica Stansted E091343 3.5x8x40, Fluid power Ltd., Dimensiuni camera  $\square$  3,5", inaltime 8", presiune maxima 40000 psi.
- Difractometru de raze X TUR M62, Tensiune de accelerare 30KV, anticatod de Co, rezolutie 0.01°, cuplata la calculator
- Echipament pentru depunerea de straturi subtiri dielectrice Balzer BAK600, Dimensiuni interne (WxDxH): 652 mm x 573 mm x 687 mm; Camera vidata (WxDxH): 577 mm x 722 mm x 1850 mm; Diametrul suportului pentru substraturi: 600 mm.
- Camera de depuneri Varian cu evaporator in vid PS10E, Dimensiunile interne ale clopotului de sticla (DxH): 300 mm x 300 mm; Diametrul suportului pentru substraturi: 60 mm; Sistem de vidare Vac Torr 150; Sistem de incalzire a substratului.
- Diode Laser:
  - 30 W, unda continua, 808 nm, cuplata in fibra (800  $\mu$ m), Coherent, USA;
  - 25 W, unda continua, 885 nm, cuplata in fibra (800  $\mu$ m), Coherent, USA;
  - 30 W, unda continua, 883 nm, cuplata in fibra (600  $\mu$ m), DILAS, Germany;
  - 240 W, unda continua, 940 nm, stack, JENOPTIK, Germany;
  - 150 W, unda continua, 980 nm, stack, JENOPTIK, Germany;
  - 500 W, pulsata, 808 nm, stack, JENOPTIK, Germany.
- Laser Nd:YAG, 100 W, cw, fiber coupled output, lamp pumped, home-made laser.
- Laser Nd:YAG, 10 J, 10 ms, putere medie 100 W, pompat cu lampi flash, construit in laborator.
- Mode Master 3-S,  $M^2$  factor measurement, Coherent, USA, 400 nm - 1100 nm
- Laser Spectrum Analyser System, EXFO, Canada, finesse >300 @ 1000 nm
- Spectrometer, USB 4000, Ocean Optics, USA, VIS-IR
- Wavelength Meter, Coherent, USA, 450 nm -1000 nm
- Autocorrelator, Delta, MINIOPTICS, USA, 20 fs - 100 ps, 500 nm - 1600 nm
- Dispozitiv aliniere lentila raze X
- Grid de mare rezolutie pt raze X
- Cap de iradiere cu raze X
- Grid de mare rezolutie pt raze X
- Statie mobila de lucru
- Pompa turbomoleculara de 1900 l/s cu accesorii
- Spectrometru cu detectori cu bule
- Sistem de masura (sursa - instrument)
- Detector de ozon



- Masina de taiere si rectificare a probelor metalografice cu accesorii
- Masina de slefuit si lustruit probe metalografice cu accesorii
- Accesorii de reflectanta absoluta
- Analizor multicanal + soft
- Interferometru
- Sistem de calcul performant
- Sistem de microtomografie de transmisie de raze X
- Tomo-Analytic – Sistem dual Combined 3-D X-Ray microtomograph and microbeam fluorescence system
- Echipamente pentru caracterizarea fasciculelor laser;
- Echipamente pentru caracterizarea infrastructurii si componentelor destinate comunicatilor pe fibra optica (OTDR, analizoare optice de spectru, surse fixe si acordabile, power metre, echipamente pentru controlul polarizarii, echipamente pentru masurarea pierderilor de cuplaj, de polarizare si la interfata, lambdametre, echipamente pentru caracterizarea sistemelor de comunicatii cu multiplexare in lungime de unda);
- Echipament pentru masurarea vibratiilor prin baleiaj 1 D folosind laserul si analiza Fourier a semnalului;
- Echipament pentru masurarea vibratiilor si socurilor prin baleiaj 3 D folosind laserul, masurari in-plane si out-of-plane si analiza Fourier a semnalului;
- Echipament pentru masurarea diferentiale a vibratiilor folosind laserul si sisteme cu fibre optice;
- Echipament portabil pentru masurarea vibratiilor folosind laserul si analiza Fourier a semnalului pentru deplasare, viteza si acceleratie;
- Echipament pentru investigarea senzorialor cu fibra optica (temperatura, tensiuni mecanice, deplasare, presiune);
- Etaloane de putere, energie, lungime de unda laser, pentru sisteme laser cu propagare a fasciculului prin atmosfera si pe fibra optica;
- Echipament pentru masurarea spectrului a timpilor de fluorescena si fosforescena;
- Echipamente pentru testerea/ etalonarea detectoarelor de radiatie optica necoerenta (UV, vizibil, IR);
- Echipamente pentru masurarea spectrului a transmisiei, absorbtiei, reflexiei in domeniul UV, vizibil, IR apropiat.
- Spectrometru de masa
- Aparat de masura unghi contact

#### **b. Echipamente necorporale**

- Soft Karspersky
- Software RAYICA, WAVICA, MATHEMATICA, LabView
- Soft specializat pentru proiectarea dispozitivelor optoelectronice realizate prin tehnici de straturi subtiri TFCALC 2000;
- Soft QE 1400;
- SOFT EletroRava integrat pe echipamentul VARIAN ER 3119.
- Software pentru calcul de structura atomica (RMATXII, FARM);
- Software pentru diagnosticare plasma (ADAS)
- Soft Comsol multiphysics
- Soft matematica
- Soft Matlab Language of Technical Computing
- Soft Nag Fortran Library, Windows XP
- Soft Origin ESD
- Soft Adobe Acrobat
- Soft Corel Graphics
- Licenta LabVIEW Professional 2009;
- Programe pentru prelucrarea datelor de la sistemele de masurare cu laser a vibratiilor;
- Software pentru sistemele de transmisie/ inregistrare/ arhivare tip teleconferinta.

## Anexa 5. Lucrari stiintifice publicate in reviste ISI

Nr. Crt.	Titlu	Revista, vol., pg., anul	Autori	Factor de impact
1	Evaluation of effective noise bandwidth for broadband optical coherence tomography operation	Journal of the Optical Society of America A-Optics Image Science and Vision Vol: 26 , Pp: 723-731 2009	Cernat Ramona, Dobre George M., Bradu Adrian, Podoleanu Adrian Gh.	1.870
2	Histogram equalization and specification in interferometry	Optoelectronics and Advanced Materials - Rapid Communications, 3(4) 376-378 (2009)	M. Rosu, B. Ionita, D. Apostol, F. Garoi, P. C. Logofatu	0.224
3	Photochromic properties of polyimide and polysiloxane azopolymers	Polymer International, 58(2) 163-170 (2009)	I. Sava, L. Sacarescu, I. Stoica, I. Apostol, V. Damian, N. Hurduc	2.029
4	Fast computation algorithm for the Rayleigh-Sommerfeld diffraction formula using a type of scaled convolution	Applied Optics 48(22), 4310-4319 (2009)	V. Nascov, P. C. Logofatu	1.763
5	'Lucky Interferometry' for displacement measurement	Optical Engineering 48(11) 115602 (2009)	B. Ionita, P. C. Logofatu, D. Apostol	0.722
6	„Theoretical calculation of atomic data for plasma spectroscopy „	Laser and Particle Beams, 27, pp 345- 354, 2009	V. Stancalie	4.42
7	„On Rydberg series of autoionizing resonances”	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Volume 267, Issue 2, January 2009, Pages 305-309, 2009	V. Stancalie	0.999
8	Comparative study on Pulsed Laser Deposition and Matrix Assisted Pulsed Laser Evaporation of urease thin films	Thin Solid Films, 517 (15), 4299-4302 , 2009	Tomi Smausz, Gábor Megyeri, Renáta Kékesi, Csaba Vass, Enikő György, Felix Sima, Ion N. Mihailescu, Béla Hopp	1.884
9	Immobilization of urease by laser techniques: synthesis and application to urea biosensors	Journal of Biomedical Materials Research: 89A: 186–191, 2009	György E, Sima F, Mihailescu IN, Smausz T, Megyeri G, Kékesi R, Hopp B, Zdrentu L, Petrescu SM	2.706
10	Biofunctional alendronate–Hydroxyapatite thin films deposited by Matrix Assisted Pulsed Laser Evaporation	Biomaterials, 30 (31), 6168-6177, 2009,	Adriana Bigi, Elisa Boanini, Chiara Capuccini, Milena Fini, Ion N. Mihailescu, Carmen Ristoscu, Felix Sima, Paola Torricelli	6.646
11	Complex (As <sub>2</sub> S <sub>3</sub> )(100-x)(AgI) <sub>x</sub> chalcogenide glasses for gas sensors	Sensors and Actuators B: Chemical, 143 (1), 395-399, 2009,	K. Kolev, C. Popov, T. Petkova, P. Petkov, I. N. Mihailescu, J. Reithmeyer	3.122
12	High-Repetition Rate Pulsed Laser Deposition of ZrC thin films	Surface and Coatings Technology 203 (8), 1055-1058, 2009	D. Craciun, G. Socol, N. Stefan, I. N. Mihailescu, G. Bourne, and V.	1.860

			Craciun	
13	Subpicosecond Laser Ablation of Copper and Fused Silica: Initiation Threshold and Plasma Expansion	Applied Surface Science, 255 (10), 9734–9737, 2009	E. Axente, S. Noël, J. Hermann, M. Sentis, I. N. Mihailescu	1.576
14	Chemical composition of ZrC thin films grown by pulsed laser deposition	Applied Surface Science, 255 (10), 5260 - 5263, 2009	D. Craciun, G. Socol, N. Stefan, G. Bourne, V. Craciun	1.576
15	AlN:Cr thin films synthesized by pulsed laser deposition: studies by X-ray diffraction and spectroscopic ellipsometry	Applied Surface Science, 255 (10), 5271–5274, 2009	A. Szekeres, S. Bakalova, S. Grigorescu, A. Cziraki, G. Socol, C. Ristoscu, I. N. Mihailescu	1.576
16	Shallow Hydroxyapatite coatings pulsed laser deposited on Al <sub>2</sub> O <sub>3</sub> substrates with controlled porosity: correlation of morphological characteristics with in vitro testing results	Applied Surface Science, 255 (10), 5312–5317, 2009	F. Sima, C. Ristoscu, N. Stefan, G. Dorcioman, I.N. Mihailescu, L. E. Sima, S. M. Petrescu, E. Palcevskis, J. Krastins, I. Zalite	1.576
17	MAPLE prepared polymeric thin films for non-linear optic applications	Applied Surface Science, 255 (10), 5611-5614, 2009	Gabriel Socol, Ion N. Mihailescu, Ana-Maria Albu, Stefan Antohe, Florin Stanculescu, Anca Stanculescu, Lucian Mihut, Nicoleta Preda, Marcela Socol, Oana Rasoga	1.576
18	Structural investigations of ITO-ZnO films grown by the combinatorial pulsed laser deposition technique	Applied Surface Science, 255 (10), 5288 - 5291, 2009	D Craciun, G. Socol, N. Stefan, M. Miroiu, I. N. Mihailescu, A. Galca, V. Craciun	1.576
19	Spectroscopic studies of (AsSe) <sub>100-x</sub> Ag <sub>x</sub> thin films	Applied Surface Science, 255, 9691–9694, 2009	V. Ilcheva, T. Petkova, P. Petkov, V. Boev, G. Socol, F. Sima, C. Ristoscu, C.N. Mihailescu, I.N. Mihailescu, C. Popov, J.P. Reithmaier	1.576
20	Characterization of pulsed laser deposited chalcogenide thin layers	Applied Surface Science, 255 (10), 5318 - 5321, 2009	T. Petkova, C. Popov, T. Hineva, P. Petkov, G. Socol, E. Axente, C.N. Mihailescu, I.N. Mihailescu, J.P. Reithmaier	1.576
21	Bioglass thin films for biomimetic implants	Applied Surface Science, 255 (10), 5476 - 5479, 2009	C. Berbecaru, H. V. Alexandru, A. Ianculescu, A. Popescu, F. Sima, G. Socol, I. N. Mihailescu	1.576
22	Biocompatible and bioactive nanostructured glass coatings synthesized by pulsed laser deposition: In vitro biological tests	Applied Surface Science, Applied Surface Science, 255 (10) 5486–5490, 2009	A.C. Popescu, F. Sima, L. Duta, C. Popescu, I.N. Mihailescu, , D. Capitanu, R. Mustata, L.E. Sima, S.M. Petrescu and D. Janackovic	1.576
23	Thin Films of Polymer Mimics of Cross-Linking Mussel Adhesive Proteins Deposited	Applied Surface Science, 255 (10) 5496–5498, 2009	R Cristescu, I.N. Mihailescu, I. Stamatina, A. Doraiswamy, R.J.	1.576

	by Matrix Assisted Pulsed Laser Evaporation		Narayan, G. Westwood, J.J. Wilker, S. Stafslie, B. Chisholm, D.B. Chrisey	
24	Functional polyethylene glycol derivatives nanostructured thin films synthesized by matrix-assisted pulsed laser evaporation	Applied Surface Science 255 (10) 9873–9876, 2009	R. Cristescu, C. Popescu, A. Popescu, S. Grigorescu, I.N. Mihaiescu, D. Mihaiescu, S.D. Gittard, R.J. Narayan, T. Buruiana, I. Stamatin, D.B. Chrisey	1.576
25	Functionalized Polyvinyl Alcohol Derivatives Thin Films for Controlled Drug Release and Targeting Systems: MAPLE Deposition and Morphological, Chemical and In Vitro Characterization	Applied Surface Science 255 (10) 5600–5604, 2009	R. Cristescu, C. Cojanu, A. Popescu, S. Grigorescu, L. Duta, G. Caraene, A. Ionescu, D. Mihaiescu, R. Albuiescu, T. Buruiana, A. Andronie, I. Stamatin, I. N. Mihaiescu, D. B. Chrisey	1.576
26	Laser Processing of Polyethylene Glycol Derivative and Block Copolymer Thin Films	Applied Surface Science, 255 (10) 5605–5610, 2009	R. Cristescu, C. Cojanu, A. Popescu, S. Grigorescu, L. Duta, O. Salomeea Ionescu, D. Mihaiescu, T. Buruiana, A. Andronie, I. Stamatin, I. N. Mihaiescu, D. B. Chrisey	1.576
27	Processing of dense nanostructured HAP ceramics by sintering and hot pressing	Ceramics International 35, 1407–1413, 2009	Dj. Veljovic, B. Jokic, R. Petrovic, E. Palcevskis, A. Dindune, I.N. Mihaiescu, Dj. Janac'kovic	1.369
28	Specific biofunctional performances of the hydroxyapatite-sodium maleate copolymer hybrid coating nanostructures evaluated by in vitro studies	Journal of Materials Science: Materials in Medicine, 20, 2305-2316, 2009	L. E. Sima, A. Filimon, R.M. Piticescu, G.C. Chitanu, D.M. Suflet, M.Miroiu, G. Socol, I.N. Mihaiescu, J.Neamtu, G.Negroiu	1.508
29	The deep level influence on the admittance of AlN/Si structures with pulsed laser deposited AlN films	Journal of Optoelectronics and Advanced Materials, 11(9), 1292 – 1295 (2009)	S. Simeonov, A. Szekeres, I. Minkov, S. Grigorescu, G. Socol, C. Ristoscu, I. N. Mihaiescu	0.577
30	Bioglass –polymer thin coatings obtained by MAPLE for a new generation of implants	Journal of Optoelectronics and Advanced Materials, 11(9), 1170 – 1174 (2009)	F. Sima, C. Ristoscu, A. Popescu, I. N. Mihaiescu, T. Kononenko, S. Simon, T. Radu, O. Ponta, R. Mustata, L. E. Sima	0.577
31	Optical properties of pulsed-laser deposited ZnO thin films	Journal of Optoelectronics and Advanced Materials, 11 (4), 425 - 428, 2009	R. Bazavan, L. Ion, G. Socol, I. Enculescu, D. Bazavan, C. Tazlaoanu, A. Lőrinczi, I. N. Mihaiescu, M. Popescu, S. Antohe	0.577
32	Growth dynamics of pulsed-laser-deposited AlN thin films	Journal of Optoelectronics and Advanced Materials, 11 (10), 1479 - 1482, 2009	S. Bakalova, A. Szekeres, A. Cziraki, S. Grigorescu, G. Socol, E.	0.577

			Axente, C. Ristoscu, I. N. Mihailescu, R. Gavrilă	
33	Chemical composition of ZrC thin films grown by pulsed laser deposition	APPLIED SURFACE SCIENCE Volume: 255 Issue: 10 Pages: 5260-5263	D. Craciun, G. Socol, N. Stefan, G. Bourne, V. Craciun	1.576
34	Preparation and characterization of polar aniline functionalized copolymers thin films for optical non-linear applications	Ferroelectrics Volume: 389 Pages: 159-173	A. Stanculescu, O. Rasoga, I. Mihut, M. Socol, F. Stanculescu, A.-M. Albu, G. Socol	0.562
35	Investigation of plumes produced by material ablation with two time-delayed femtosecond laser pulses	Applied Surface Science, 255, 9738–9741, 2009	S. Noël, E. Axente and J. Hermann	1.576
36	Biomolecular papain thin films grown by matrix assisted and conventional pulsed laser deposition: a comparative study	Journal of Applied Physics, 106 (2009) 114702	E. György, A. Pérez del Pino, G. Sauthier, A. Figueras	2.201
37	Surface morphology of AlN films synthesized by pulsed laser deposition	Vacuum 84 (1), pp. 155-157, 2009	Bakalova, S., Szekeres, A., Huhn, G., Havancsak, K., Grigorescu, S., Socol, G., Ristoscu, C., Mihailescu, I.N.	1.114
38	The effect of the textural properties of the $\gamma$ -Al <sub>2</sub> O <sub>3</sub> :Ni catalyst template on the nanostructured carbon grown by PECVD	Superlattices and Microstructures, 46, 297-301, 2009	R. Birjega, S.I.Vizireanu, G. Dinescu, R. Ganea	1.211
39	Synthesis and characterization of Mn <sup>2+</sup> doped ZnS nanocrystals self-assembled in a tight mesoporous structure	Superlattices and Microstructures, 46, 306-311, 2009	S.V. Nistor, L. C. Nistor, M. Stefan, C. D. Mateescu, R. Birjega, N. Solovieva, M. Nikl	1.211
40	Multifunctional thin films of lactoferrin for biochemical use deposited by MAPLE technique	APPLIED SURFACE SCIENCE Volume: 255,10, 5491-5495, 2009	Constantinescu C, Palla-Papavlu A, Rotaru A, Florian P, Chelu F, Icriverzi M, Nedelcea A, Dinca V, Roseanu A, Dinescu M	1.576
41	2D and 3D biotin patterning by ultrafast lasers	INTERNATIONAL JOURNAL OF NANOTECHNOLOGY Vol.6, 1-2, 88-98, 2009	Dinca V, Catherine J, Mourka, A, Georgiou S, Farsari, M, Fotakis C	0.750
42	Plasma processing of polypyrrole-heparin thin films on titanium substrates for biomedical applications	Phys. Status Solidi C 6, No. 10, 2195– 2198, 2009	Adina Morozan, Florin Nastase, Anca Dumitru, Claudia Nastase, Silviu Vulpe, Mihaela Filipescu	0.55
43	Radio-frequency assisted pulsed laser deposition of nanostructured WO <sub>x</sub> films	Applied Surface Science 255, 9699–9702, 2009	M. Filipescu, P.M. Ossi, N. Santo, M. Dinescu	1.576
44	Nanoporous cluster-assembled WO <sub>x</sub> films prepared by radio-frequency assisted laser ablation	Thin Solid Films, 2009 (doi:10.1016/j.tsf.2009.12.015)	M. Dinescu, M. Filipescu, P.M. Ossi, N. Santo	1.884

45	Quantum confinement dependence of the energy splitting and recombination dynamics of A and B excitons in a GaN/AlGaIn quantum well	Physical Review B, vol. 79, 245316, 2009	F. Stokker-Cheregi, A. Vinattieri, E. Feltn, D. Simeonov, J.-F. Carlin, R. Butté, N. Grandjean, M. Gurioli	3.322
46	<u>Transport, magnetic, and structural properties of La<sub>0.7</sub>Ce<sub>0.3</sub>MnO<sub>3</sub> thin films: Evidence for hole-doping</u>	Phys. Rev. B 79, 054416, 2009	R. Werner, C. Raisch, V. Leca, V. Ion, S. Bals, G. Van Tendeloo, T. Chassé, R. Kleiner, and D. Koelle	3.322
47	Optical and structural investigations on rare earth-doped thin films of phosphate glasses prepared by pulsed laser deposition	Journal of Materials Science: Materials in Electronics, Vol. 20, 286-289, Suppl. 1, 2009	Vasiliu C, Epurescu G, Niciu H, Dumitrescu O, Negrila C, Elisa M, Filipescu M, Dinescu M, Grigorescu, C.E.A	1.054
48	Pulsed-laser deposition of smooth thin films of Er, Pr and Nd doped glasses	Applied Surface Science, 255, 5295-5298, 2009	G. Epurescu, A. Vlad, M.A. Bodea, C. Vasiliu, O. Dumitrescu, H. Niciu, M. Elisa, K. Siraj, J.D. Pedarnig, D. Bäuerle, M. Filipescu, A. Nedelcea, A.C. Galca, C.E.A. Grigorescu, M. Dinescu	1.576
49	Deposition, characterization and biological application of epitaxial Li:ZnO/Al:ZnO double-layers	Thin Solid Films, Vol. 518, Issue 4, 1350-1354, 2009	A. Vlad, S. Yakunin, E. Kolmhofer, V. Kolotovska, L. Muresan, A. Sonnleitner, D. Bäuerle, J.D. Pedarnig	1.884
50	<u>CdS Thin Films Obtained by Thermal Treatment of Cadmium (II) Complex Precursor Deposited by MAPLE Technique</u>	Applied Surface Science, 255, p. 6786–6789, 2009	A. Rotaru, A. Kropidlowska, C. Constantinescu, N. Scarisoreanu, M. Dumitru, M. Strankowski, P. Rotaru, V. Ion, C. Vasiliu, B. Becker, M. Dinescu	1.611
51	Thin films of Cu(II)-o,o'-dihydroxy azobenzene nanoparticle-embedded polyacrylic acid (PAA) for nonlinear optical applications developed by matrix assisted pulsed laser evaporation (MAPLE)	Applied Surface Science 255 5480–5485, 2009	Catalin Constantinescu, Ana Emandi, Cristina Vasiliu, Catalin Negrila, Constantin Logofatu, Costel Cotarlan, Mihail Lazarescu	1.576
52	Advanced kinetic software for non-isothermal kinetics by standard procedure	Journal of Thermal Analysis and Calorimetry – 97, 421-426, 2009	A. Rotaru, M. Goşa	1.630
53	Thermal characterization of Ni-Ti SMA (Shape Memory Alloy) actuators	Journal of Thermal Analysis and Calorimetry – 97, 695-700, 2009	S. Degeratu, P. Rotaru, G. Manolea, H. Manolea, A. Rotaru	1.630
54	Thermal decomposition kinetics of some aromatic azomonoethers. Part IV. Non-isothermal kinetics of 2-allyl-4-((4-(4-methylbenzyloxy)phenyl) diazenyl) phenol in dynamic air atmosphere	Journal of Thermal Analysis and Calorimetry – 97, 485-491, 2009	A. Rotaru, A. Moanță, G. Popa, P. Rotaru, E. Segal	1.630
55	Thermal analysis of azoic dyes; Part I. Non-isothermal	Thermochimica Acta 489, 63-69, 2009	A. Rotaru, G. Brătulescu, P. Rotaru	1.659

	decomposition kinetics of [4 - (4 - chlorobenzyloxy) – 3 - methylphenyl] (p-tolyl) diazene in dynamic air atmosphere			
56	Thermal decomposition kinetics of some aromatic azomonoethers. Part III. Non-isothermal study of 4-[(4-chlorobenzyl)oxy]-4'-chloroazobenzene in dynamic air atmosphere	Journal of Thermal Analysis and Calorimetry 95, 161-166, 2009	A. Rotaru, A. Moanță, P. Rotaru, E. Segal	1.630
57	Laser induced fluorescence, measurements on brain tissues.	Anatomical Record, vol. 292, pg. 2013-2022, 2009	A. Pascu, M. O. Romanitan, J.M. Delgado, L. Danaila, M.L. Pascu	1.569
58	Cavity Ring-Down Laser Absorption Spectroscopy of Jet-Cooled L-Tryptophan	Journal of Physical Chemistry A, vol. 113, pg. 8187-8194, 2009	G. Rouille, M. Arold, A. Staicu, T. Henning, F. Huisken	2.871
59	On the sensitivity of the Maley technique for the analysis of vortex-creep activation energy in disordered superconductors	Supercond. Sci. Technol. in ID:SUST/334953/PAP ISSN 0953-2048 (Print) ISSN 1361-6668 (Online 2009)	L. Miu, D. Miu	1.847
60	Nanochannels Fabrication using Kikendal Effect	Solid State Science ( online 2009)	A.Marcu, T.Yanagida, T.Kawai	1.742
61	ZnO Nanowire Morphology Control in Pulsed Laser Deposition	Journal of Optoelectronics and Advanced Materials pp. 421-426 (2009)	A.Marcu, M.Goyat, T.Yanagida T.Kawai	0.577
62	Surfactant-free emulsion polymerization of styrene in the presence of silylated montmorillonite	Applied Clay Science 45 pp.164-170 (2009)	R.Ianchis, D.Donescu, C.Petcu, M.Ghiurea, D.F.Anghel, G.Stinga , A.Marcu	2.005
63	Study on TiO <sub>2</sub> thin films grown by advanced pulsed laser deposition on ITO	Thin Solid Films 518 (2009) 1314	C. Sima, C. Grigoriu	1.884
64	Titanium oxide thin films produced by pulsed laser deposition	J. Optoelectron. Adv. M. , 11 (2009) 826	C.Sima, C. Grigoriu, C. Viespe, I. Pasuk, E. Matei	0.577
65	Magnetite nanoparticles induce oxidative stress in MRC5 cell line	Free radical research 43 (2009) 62	A. Dinischiotu, M.C. Munteanu, O. Zarnescu, Al. Serban, C.Sima, M. Radu, M. Costache	2.826
66	Study of the third-order nonlinear optical properties of nano-crystalline porous silicon using a simplified Bruggeman formalism	Journal of Optoelectronics and Advanced Materials, 11 (6), 820-825, 2009	T. Bazaru, V. I. Vlad, A. Petris, P. S. Gheorghe	0.577
67	In vivo imaging of dynamic biological specimen by real-time single-shot full-field optical coherence tomography	Opt. Communications, 282, 674–683 (2009)	M. S. Hrebesh, R. Dabu, M. Sato	1.552
68	Structuring by field enhancement of glass, Ag, Au, and Co thin films using	Journal of Applied Physics, Vol. 106, Issue 11, Article Number:	M. Ulmeanu, M. Zamfirescu, L. Rusen, C. Luculescu, A.	2.201

	short pulse laser ablation	114908 (2009)	Moldovan , A. Stratan, R. Dabu	
69	Self-assembly of colloidal particles on different surfaces	Colloids and Surfaces A – Physicochemical and engineering aspects, vol. 338, issue 1-3, pag. 87-92 (2009)	M. Ulmeanu, M. Zamfirescu, R. Medianu	1.926
70	Modelling properties of hard x-rays generated by the interaction between relativistic electrons and very intense laser beams	Journal of Physics B: Atomic, Molecular and Optical Physics, Vol. 42, p. 025601, I 2009	Alexandru Popa	2.089
71	Geometrical symmetry of atoms with applications to semiclassical calculations of energetic values	European Physical Journal, Vol. 54, p. 575-583, 2009	Alexandru Popa	1.397
72	"Direct laser writing of two-dimensional photonic structures in amorphous As <sub>2</sub> S <sub>3</sub> thin films"	J. Optoel. Adv. Materials, vol.11, p. 1874 – 1880 (2009).	A. Popescu, S. Miclos, D. Savastru, R. Savastru, M. Ciobanu, M. Popescu, A. Lorinczi, F. Sava, A. Velea, F.Jipa , M. Zamfirescu	0.577
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168	The Rapidity dependence of the proton-to-pion ratio in Au+Au and p+p collisions at $s(NN)^{1/2} = 62.4$ -GeV and 200-GeV	Nucl.Phys.A830:825C-828C,2009	Arsene I.C., I.S. Zgura (BRAHMS Collaboration)	1.959
169	Photoionization and far infrared absorption of single-electron transistors: theoretical results and experimental proposal, e-J	Surf. Sci. Nanotech. (2009; aparuta: 8, 1 (2010))	Bâldea I., H. Köppel	1.731
170	Solving of the fractional non-linear and linear Schrodinger equations by homotopy perturbation method	ROMANIAN JOURNAL OF PHYSICS Volume: 54 Issue: 9-10 Pages: 823-832, 2009	Baleanu D, Golmankhaneh AK, Golmankhaneh AK	
171	The Dual Action of Fractional Multi Time Hamilton Equations	INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS Volume: 48 Issue: 9 Pages: 2558-2569, 2009	Baleanu D, Golmankhaneh AK, Golmankhaneh AK	0.675
172	On the asymptotic integration of a class of sublinear fractional differential equations	JOURNAL OF MATHEMATICAL PHYSICS Volume: 50 Issue: 12 Article Number: 123520 , 2009	Baleanu D, Mustafa OG.	1.085
173	Fractional variational principles in action	PHYSICA SCRIPTA Volume: T136 Article Number: 014006 , 2009	Baleanu D.	0.970
174	About fractional quantization and fractional variational principles	COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION Volume: 14 Issue: 6 Pages: 2520-2523, 2009	Baleanu D.	
175	A Central Difference Numerical Scheme for Fractional Optimal Control Problems	JOURNAL OF VIBRATION AND CONTROL Volume: 15 Issue: 4 Pages: 583-597, 2009	Baleanu, D; Defterli, O; Agrawal,O.P.	0.656
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177	Chemometric Methods for the Simultaneous Spectrophotometric Determination of Telmisartan and Hydrochlorotiazide in the Commercial Pharmaceuticals	REVISTA DE CHIMIE Volume: 60 Issue: 6 Pages: 544-550, 2009	Beliz K, Dinc E, Baleanu D .	0.389



178	Active Galactic Nuclei: Sources for ultra high energy cosmic rays?	Nuclear Physics B Proceedings Supplements, Volume 190, p. 61-78 (2009), [arXiv:0811.1848], <a href="http://adsabs.harvard.edu/abs/2009NuPhS.190...61B">http://adsabs.harvard.edu/abs/2009NuPhS.190...61B</a>	Biermann, P. L.; Becker, J. K.; Caramete, L., et al.	4.158
179	A new version of Scilab software package for the study of dynamical systems	Comput. Phys. Commun., Vol. 180 (Issue 11), 2398-2399 (2009)	Bordeianu C.C., D. Felea, C. Besliu, Al. Jipa, I.V. Grossu	2.120
180	Multiphoton ionization through the triplet states of Mg by linearly and circularly polarized laser pulses	Phys. Rev. A, (2009)	Buica Gabriela, T. Nakajima	2.908
181	Nuclear sources emitting alpha structures in nuclear collisions at intermediate energies	Romanian Reports in Physics, vol. 61, no. 4, p. 656-661, 2009	Cherciu M.I., Al. Jipa	
182	SPACE: the spectroscopic all-sky cosmic explorer	Experimental Astronomy, Volume 23, Issue 1, pp.39-66 (2009), DOI: 10.1007/s110686-008-9096-7, <a href="http://adsabs.harvard.edu/abs/2009ExA....23...39C">http://adsabs.harvard.edu/abs/2009ExA....23...39C</a>	Cimatti, A.; Robberto, M.; Baugh, C.,...,Popa L.A., et al. (SPACE Collaboration)	2.083
183	Nuclear Threshold Effects and Neutron Strength Functions	Physics of Particles and Nuclei, 2009	Comisel H., C. Hategan, H. H. Wolter	1.015
184	New Aspects in Killing Tensors of Rank Two	Romanian Journal of Physics, no.3-4, 2009	CRASMAREANU MIRCEA, DUMITRU BALEANU	
185	Baryon stopping in Au+Au and p+p collisions at 62 and 200 GeV	Nucl.Phys.A 830, 841c-844c, 2009	Dalgaard H.H. for the BRAHMS Collaboration, I.C. Arsene, I.S. Zgura	1.959
186	Spectral Continuous Wavelet Transform for the Simultaneous Spectrophotometric Analysis of a Combined Pharmaceutical Formulation	REVISTA DE CHIMIE Volume: 60 Issue: 8 Pages: 741-744, 2009	Dinc E, Baleanu D.	0.389
187	Continuous wavelet transform and derivative spectrophotometry for the quantitative spectral resolution of a mixture containing levamisole and triclobandazole in veterinary tablets	REVIEWS IN ANALYTICAL CHEMISTRY, Volume: 28 Issue: 2 Pages: 79-92, 2009	Dinc E, Pektas G, Baleanu D.	0.767
188	An application of principal component analysis-artificial neural network for the simultaneous quantitative analysis of a binary mixture systemM	Revista de Chimie, Volume 7, Pages: 662-666, 2009	Dinc E., N.S. Koktas, D. Baleanu	0.389
189	Alternative approaches to the spectral quantitative resolution of the two-component mixture by wavelet families	JOURNAL OF THE CHILEAN CHEMICAL SOCIETY Volume: 54 Issue: 1, Pages: 28-35, 2009	Dinc, E; Arslan, F; Baleanu, D	0.562
190	Continuous Wavelet Transform Applied to the	REVISTA DE CHIMIE Volume: 60 Issue: 3	Dinc, E; Baleanu, D	0.389

	Quantitative, Analysis of a Binary Mixture	Pages: 216-221 , 2009		
191	Chemometric Simultaneous Determination of Atorvastatin and Amlodipine in Tablets by PCR and PLS Calibrations	REVISTA DE CHIMIE Volume: 60 Issue: 2 Pages: 127-131, 2009	Dinc, E; Baleanu, D.	0.389
192	A magnetospheric generator driving ion and electron acceleration and electric currents in a discrete auroral arc observed by Cluster and DMSP	Geophysical Research Letters, Volume 36, Issue 12, CiteID L12111, 2009	Echim, M., Maggiolo, R., Roth, M., De Keyser, J.	2.959
193	On fractional Schrodinger equation in alpha-dimensional fractional space	NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS Volume: 10 Issue: 3 Pages: 1299-1304, 2009	Eid, R; Muslih, SI; Baleanu, D, et al.	1.778
194	Effects of proton irradiation on structural and optical properties of CdS thin films used in photovoltaic applications	Journal of Optoelectronics and Advanced Materials – Rapid Communications, Vol. 3, Issue 10, 1023-1026, 2009	Ghenescu Veta, L. Ion, M. Ghenescu, M. Rusu, M. Gugiu, G. Velisa, Oana Porumb, S. Antohe	0.577
195	Visual tool for estimating the fractal dimension of images	Comput. Phys. Commun., Vol. 180 (Issue 10), 1999-2001 (2009)	Grossu I.V., C. Besliu, M.V. Rusu, Al. Jipa, C.C. Bordeianu, D. Felea	2.120
196	Probabilistic Methods for Solving the Cauchy Problem for Boltzmann-like Models	Mathematical problems in engineering aerospace and science: ICNPAA 2008, pp 326-333, C. S. Sivasundaram, Ed, Cambridge Scientific Publishers, 2009, (ISBN 978-1-904868-70-5)	Grunfeld C. P., D. Marinescu	
197	Scale size and life time of energy conversion regions observed by Cluster in the plasma sheet	Ann. Geophys., 27, 4147-4155	Hamrin, M., P. Norqvist, O. Marghitu, A. Vaivads, B. Klecker, L. M. Kistler, I. Dandouras	1.660
198	Occurrence and location of concentrated load and generator regions observed by Cluster in the plasma sheet	Ann. Geophys., 27, 4131-4146	Hamrin, M., P. Norqvist, O. Marghitu, S. Buchert, B. Klecker, L. M. Kistler, I. Dandouras	1.660
199	Heavy ion event generator HYDJET++ (HYDrodynamics plus JETs)	Comp. Phys. Commun. 180, pp.779-799, 2009	Lokhtin P., L.V. Malinina, S.V. Petrushanko, A.M. Snigirev, I. Arsene, K. Tywoniuk	2.120
200	Solving the Fractional Order Bloch Equation	CONCEPTS IN MAGNETIC RESONANCE PART A Volume: 34A Issue: 1, Pages: 16-23, 2009	Magin, R; Feng, X; Baleanu, D.	1.431
201	Characterization of a benzoic acid modified glassy carbon electrode expressed quantitatively by new statistical parameters	PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES Volume: 41 Issue: 4 Pages: 609-616 ,2009	Nigmatullin, RR; Baleanu, D; Dinc, E, et al.	1.230
202	Large-distance asymptotic behavior of the correlation	EPL 86 , Article Nr. 40001, (2009).	Patu Ovidiu I., Vladimir E. Korepin, Dmitri V.	2.200

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203	Non-conformal asymptotic behavior of the time-dependent field-field correlators of 1D anyons	EPL 87, Article Nr. 60006, (2009).	Patu Ovidiu I., Vladimir E. Korepin, Dmitri V. Averin	2.200
204	One-dimensional impenetrable anyons in thermal equilibrium: III. Large distance asymptotics of the space correlations	J. Phys. A 42, Article Nr. 275207 (2009)	Patu Ovidiu I., Vladimir E. Korepin, Dmitri V. Averin	1.500
205	COMBINED APPLICATION OF CONTINUOUS WAVELET TRANSFORM-ZERO CROSSING TECHNIQUE IN THE SIMULTANEOUS SPECTROPHOTOMETRIC DETERMINATION OF PERINDOPRIL AND INDAPAMID IN TABLETS	QUIMICA NOVA Volume: 32 Issue: 6 Pages: 1416-1421, 2009	Pektas G, Dinc E, Baleanu D.	0.891
206	Constraints on the Lepton Asymmetry and Radiation Energy Density: Implications for Planck	Romanian Reports in Physics, Vol. 61, No. 3, P. 531–545, 2009	Popa L.A., P. Stefanescu, A. Vasile	
207	From WMAP to Planck: Exact Reconstruction of Four- and Five-dimensional Inflationary Potential from High-precision Cosmic Microwave Background Measurements'	TheAstrophysical Journal 706, 1008-1019 (2009), [arXiv:0907.5558], <a href="http://www.iop.org/EJ/abstract/0004-637/706/2/1008/">http://www.iop.org/EJ/abstract/0004-637/706/2/1008/</a>	Popa, L. A.; Mandolesi, N.; Caramete, A.; Burigana, C.	6.331
2088	Fractional WKB approximation	NONLINEAR DYNAMICS Volume: 57 Issue: 1-2 Pages: 171-175 , 2009	Rabei, EM; Altarazi, IMA; Muslih, SI, Baleanu,D.	1.295
209	Forward-rapidity azimuthal and radial flow of identified particles for sNN=200 GeV Au+Au collisions	Nucl.Phys.A 830, 179c-182c, 2009	Sanders S.J. for the BRAHMS Collaboration, I.C. Arsene, I.S. Zgura	1.959
210	Electromagnetic Dissociation of Relativistic 8B Nuclei in Nuclear Track Emulsion	Physics of Atomic Nuclei, 2009, Vol. 72, No. 4, pp. 690–701	Stanoeva R., D. A. Artemenkov, V. Bradnova, P. I. Zarubin, I. G. Zarubina, N. A. Kachalova, A. D. Kovalenko, D. O. Krivenkov, A. I. Malakhov, P. A. Rukoyatkin, V. V. Rusakova, T. V. Shchedrina, S. Vokal, L. A. Goncharova, G. I. Orlova, N. G. Peresadko, N. G. Polukhina, S. P. Kharlamov, M. M. Chernyavsky, M. Haiduc	0.491
211	The rapidity dependence of the proton-to-pion ratio in Au+Au and p+p collisions at sNN=62.4 and 200 GeV	Nucl.Phys.A 830, 825c-828c, 2009	Staszal P. for the BRAHMS Collaboration, I.C. Arsene, I.S. Zgura	1.959
212	Foregrounds contamination in	Romanian Reports in	Stefanescu P., L. A.	

	CMB polarization data: implications for CMB B-mode polarization measurements with Planck	Physics, Vol. 61, No. 3, Pag. 523, 2009	Popa, A. Vasile	
213	Cold atoms photoassociation with intense laser pulses	Nucl. Instrum. Methods Phys. Res. B 267, 390-2, 2009	Vatasescu M.	0.999
214	Formation of cold molecules by shaping with light the short-range interaction between cold atoms: photoassociation with strong laser pulses	J. Phys. B: At. Mol. Opt. Phys. 42, 165303 (12p), 2009	Vatasescu M.	2.089
215	Overview and Recent Results from BRAHMS	Nucl.Phys.A 830, 43c-50c, 2009	Videbaek F. for the BRAHMS Collaboration, I.C. Arsene, I.S. Zgura	1.959
216	Analysis of three-spacecraft data using planar reciprocal vectors: methodological framework and spatial gradient estimation	Ann. Geophys., 27, 3249-3273.	Vogt, J., A. Albert, O. Marghitu	1.660
217	Equation of state at FAIR energies and the role of resonances	J.Phys.G: Nucl.Part.Phys.36, 064065, 2009	Zabrodin E.E., I.C. Arsene, J. Bleibel, M. Bleicher, L.V. Bravina, G. Burau, A. Faessler, C. Fuchs, M.S. Nilsson, K. Tywoniuk, H. Stocker	5.270

### Anexa 5B. Lucrari stiintifice trimise spre publicare in reviste ISI

Nr. Crt.	Titlu	Revista, vol., pg., anul	Autori	Factor de impact
1	Chemical activation of the high voltage pulsed, cold atmospheric plasma jets	Romanian Reports in Physics, 62, 1, 2010.	N. Georgescu, C. P. Lungu, Andreea Lupu	0,333
2	X-ray micro-tomography as a tool for quantitative characterization of advanced materials.	Accepted for publication in Materials and Manufacturing Processes	I.Tiseanu, T. Craciunescu, P. Badica, G.V. Aldica, M. Ilovea, M. Rindfleisch.	0.777
3	Formation of optically active oxygen deficient centers in Ge-doped SiO <sub>2</sub> by gamma- and beta-ray irradiation	J. Non-Crystalline Solids, 356 (2010) 275–280	A. Alessi, S. Agnello, D. G. Sporea, C. Oproiu, B. Brichard, F.M. Gelardi	1,449
4	“Characterization of nano-structured carbon-metal bilayers deposited by Thermionic Vacuum Arc (TVA) technology	ChemListy102 s1533-s1535 (2008)	R. Vladoiu, V.Ciupina, C.P.Lungu, O.I.Pompilian, P.Chiru, A.M.Lungu, G.Prodan, A.Mandes, G.Musa	0.683
5	Polymer-like thin films obtained by RF plasma polymerization of pentacyclic monomers	Accepted for publication in Journal of Optoelectronics and Advanced Materials (JOAM), 2010	V. Satulu, B. Mitu, A.C. Galca, G.V. Aldica, G. Dinescu	0.446
6	Surface modification at	Accepted for publication	M.D. Ionita, M.	0.446

	atmospheric pressure in expanding RF plasmas generated by planar Dielectric Barrier Discharges	in Journal of Optoelectronics and Advanced Materials (JOAM), 2010	Teodorescu, C. Stancu, C.E. Stancu, E.R. Ionita, A. Moldovan, T. Acsente, M. Bazavan, G. Dinescu	
7	RF assisted pulsed laser deposition of electrodes for YSZ based SOFCs	Accepted for publication in Journal of Optoelectronics and Advanced Materials (JOAM), 2010	B. Mitu, M. Filipescu, M. Dinescu, G. Dinescu, S. Somacescu, P. Osiceanu, V. Pârvulescu	0.446
8	Wettability properties of carbon nanowalls layers deposited by a radiofrequency plasma beam discharge	Accepted for publication in Materials Science and Engineering B, 2010	E. C. Stancu, M.D. Ionita, S. Vizireanu, M. Balan, L. Moldovan, G. Dinescu	1.577
9	Modification of Poly(Ethylene Terephthalate) Track Membrane Properties by Plasma Chemical Method	Materials Science Forum Vol. 636-637 pag. 805-811, 2010	L. Kravets, S. Dmitriev, G. Dinescu, V. Sleptsov, V. Elinson	0.399
10	Polymer Composite Nanomembranes with Asymmetry of Conductivity	Materials Science Forum Vol. 636-637 pag. 812-818, 2010	L. Kravets, S. Dmitriev, G. Dinescu, V. Satulu, A. Gilman, M. Yablokov	0.399
11	Specificity of defects induced in silicon by RF-plasma hydrogenation,	Accepted for publication in Applied Physics Section A, DOI 10.1007/s00339-009-5527-1, 2010	C. Ghica, L.C. Nistor, M. Stefan, D. Ghica, B. Mironov, S. Vizireanu, A. Moldovan, M. Dinescu	1.884
12	First proton-proton collisions at the LHC as observed with the ALICE detector: measurement of the charged particle pseudorapidity density at $\sqrt{s}=900$ GeV	Accepted in 2009 to be published in Eur.Phys.J. C.	K. Aamodt, I.C. Arsene, A. Danu, D. Felea, A. Gheata, M. Gheata, M. Haiduc, D. Hasegan, C.M. Mitu, A. Sevcenco, I. Stan, I.S. Zgura et al. (ALICE Collaboration)	
13	Alignment of the ALICE Inner Tracking System with cosmic-ray tracks	Submitted to Journal of Instrumentation (The CERN Large Hadron Collider: Accelerator and Experiments)	K. Aamodt, I.C. Arsene, A. Danu, D. Felea, A. Gheata, M. Gheata, M. Haiduc, D. Hasegan, C.M. Mitu, A. Sevcenco, I. Stan, I.S. Zgura et al. (ALICE Collaboration)	
14	Calibration and Monitoring of the Pierre Auger Observatory	Astroparticle Physics	Abraham,J.; Abreu,P.; Aglietta, M., Caramete L., et al. (The Pierre AUGER Collaboration)	
15	Operations of and Future Plans for the Pierre Auger Observatory	Astroparticle Physics	Abraham,J.; Abreu,P.; Aglietta, M., Caramete L., et al. (The Pierre AUGER Collaboration)	
16	Kaon and Pion Production in Central Au+Au Collisions at $\sqrt{s_{NN}}=62.4$ GeV	Accepted in 2009 to be published in Phys.Lett.B	Arsene I.C., I.S. Zgura (BRAHMS Collaboration)	

17	Rapidity dependence of the proton to pion ratio in Au+Au and p+p collisions at $\sqrt{s_{NN}}=62.4$ and 200 GeV	Accepted in 2009 to be published in Phys.Lett.B	Arsene I.C., I.S. Zgura (BRAHMS Collaboration)	
18	Cross-sections and single spin asymmetries of identified hadrons in p uparrow + p at $s^{1/2}=200$ - GeV		Arsene I.C., I.S. Zgura (BRAHMS Collaboration)	
19	Diffractive electromagnetic interactions in nuclear emulsion irradiated with 1 GeV/c Iron nuclei	Submitted to Physics of Atomic Nuclei, nov. 2009	Artemenkov D. A., ....., E. Firu, M. Haiduc, A.T. Neagu,	
20	Diamond detectors for hadron physics research	Diamond and Related Materials, In Press, Accepted Manuscript, Available online 19 November 2009	Berdermann E., M. Pomorski, W. de Boer, M. Ciobanu, S. Dunst, C. Grah, M. Kiš, W. Koenig, W. Lange, W. Lohmann, R. Lovrincic, P. Moritz, J. Morse, S. Mueller, A. Pucci, M. Schreck, MD. S. Rahman, M. Träger	
21	Old and new in nuclear fragmentation at high energies	Submitted to International Journal of Modern Physics E - Nuclear Physics	Besliu C., Al. Jipa, E. Stan, M.I. Cherciu, A. Danu, B. Iliescu, I.V. Grossu, C. Bordeianu, M. Calin, T. Esanu	
22	A new technique for determining orientation and motion of a 2-D, non-planar magnetopause	Submitted to Annales Geophysicae, November 2009	Blagau, A., B. Klecker, G. Paschmann, S. Haaland, O. Marghitu, and M. Scholer	
23	The mass function of nearby black hole candidates	Astron. & Astrophys. (2009)	Caramete, L.; Biermann, P. L	
24	New Lower Limits on the Lifetime of Heavy Neutrino Radiative Decay	Astroparticle Physics	<u>Cecchini S., D. Centomo, G. Giacomelli, R. Giacomelli, M. Giorgini, L. Patrizii, V. Popa, C.G. Serbanuut</u>	
25	Light nuclei competition in self-conjugate 4n-nuclei interactions at intermediate and high energies	Accepted in 2009 to be published in Romanian Reports in Physics	Cherciu M.I., A. Jipa	
26	A review of solar wind models: kinetic and fluid aspects	Surveys in Geophysics, 2009. Submitted	Echim, M., Lie-Svendson, O., Lemaire,	
27	Comparative investigation of the Terrestrial and Venusian magnetopause : kinetic modeling and experimental observations by Cluster and Venus Express	Submitted in Planetary and Space Science 2009	Echim, M., Maggiolo, R., De Keyser, J., Zhang, T.L., Voitcu, G., Barabash, S., Lundin, R.,	
28	Intermittency route to chaos for the nuclear billiard - a quantitative study	submitted to Phys. Rev. C.,	Felea D., C.C. Bordeianu, I.V. Grossu, C. Besliu, Al. Jipa, A.A. Radu, E. Stan	
29	Intermittency route to chaos for the nuclear billiard - a qualitative	submitted to Phys. Rev. C	Felea D., I.V. Grossu, C.C. Bordeianu, C. Besliu, Al. Jipa, A.A.	

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30	Study of peripheral collisions of $^{56}\text{Fe}$ nuclei at 1GeV/c in nuclear emulsion	submitted to Romanian Reports in Physics, nov. 2009	Firu E., M. Haiduc, A.T. Neagu for BECQUEREL Collaboration	
31	Code C# for chaos analysis of relativistic many-body system,	submitted to Comput. Phys. Commun	Grossu I.V., C. Besliu, Al. Jipa, C.C. Bordeianu, D. Felea, E. Stan, T. Esanu,	
32	A new version of Visual tool for estimating the fractal dimension of images	accepted in 2009 to be published in Comput. Phys. Commun.	Grossu I.V., D. Felea, C. Besliu, Al. Jipa, C.C. Bordeianu, E. Stan, T. Esanu,	
33	A data analysis and modeling framework for the description of materials with disordered structures	submitted to Romanian Journal of Physics.	Ion I., C.M. Mitu	
34	Carbon composite materials for EMI applications Part I. Preparation and structural test,	accepted in 2009 to be published in Rev. Roum. Sci. Techn.–Électrotechn. et Énerg.	Ion I., C. Banciu, C.M. Mitu, N. Stancu, Y. Kovalev, N. Székely,	
35	Fractal model for carbon composite materials for EMIS application	accepted in 2009 to be published in Rev. Roum. Sci. Techn.–Électrotechn. et Énerg.	Ion I., C.M. Mitu, A.B. Dumitru, C. Banciu, A. Bara, N. Stancu, Y. Kovalev, N. Székely,	
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37	One-Dimensional Impenetrable Anyons in Thermal Equilibrium. IV. Large Time and Distance Asymptotic Behavior of the Correlation Functions;	Submitted at J. Phys. A	Patu Ovidiu I., Vladimir E. Korepin, Dmitri V. Averin	1.5
38	Radar-coding and Geocoding Look Up Tables for the Fusion of GIS Data and SAR images in Mountain Areas	IEEE Geoscience and Remote Sensing Letters (GRSL), 2009, 5 pages, accepted,	Pétillot I., E. Trouvé, P. Bolon, A. Julea, M. Gay, J.-M. Vanpé.	
39	Position-sensitive radiation detectors made of single crystal CVD diamond,	Phys. Status Solidi A, 1–6 (2009)	Pomorski M., M.Ciobanu, C.Mer, M.Rebisz-Pomorska, D.Tromson, and P.Bergonzo	

40	KM3NeT: Present status and potentiality for the search for exotic particle,	Nucl. Instr. in Phys. Res. (2009) *	Popa V. (for KM3Net Collaboration),	
41	Higgs mass from cosmological and astrophysical measurements	Physics Letter B	Popa, L. A.	
42	Relativistic radioactive beams with applications in astrophysic,	submitted to Romanian Reports in Physics	Potlog P.M., M.I. Cherciu, E. Stan,	
43	Multi-strip MRPCs for FOPI	Nuclear Instruments and Methods in Physics Research Section A: 602 (2009) 679-681	Schüttauf, M. Ciobanu M, K.D. Hildenbrand, M. Kiš, I. Deppner, N. Herrmann, Y.J. Kim, T.I. Kang, P. Koczon, X. Lopez, Y. Leifels, M. Petrovici, K. Piasecki, A. Reischl, W. Reisdorf, M.S. Ryu, V. Simion, N. Zernecki, X. Zhang and For the FOPI Collaboration	
44	The Integrated Sachs-Wolfe effect in cross-correlation with galaxy samples - a reliable independent probe for constraining cosmology	Romanian Reports in Physics (2009)	Stefanescu, P., Popa, L. A.,	
45	Measurement of the atmospheric muon flux with a 4 GeV threshold in the ANTARES neutrino telescope	Astro-Ph/0910.4843, acceptata spre publicare in Astroparticle Physics	Aguilar J.A. et al. (ANTARES Collaboration)	
46	Far-infrared absorption in single-electron transistors: theoretical results and experimental proposal	preprint arXiv:0905.1212 (expediata spre publicare la Phys. Rev. B)	Bâldea I., H. Köppel	
47	Photoionization and far infrared absorption of single-electron transistors: theoretical results and experimental proposal, e-J	Surf. Sci. Nanotech. (2009; aparuta: 8, 1 (2010))	Bâldea I., H. Köppel	
48	Characterization of assembled quantum dots and single-electron transistors	Physica Status Solidi (c) (2009; acceptata pentru publicare)	Bâldea I., H. Köppel si L. S. Cederbaum	
49	Probabilistic Methods for Solving the Cauchy Problem for Boltzmann-like Models	Mathematical problems in engineering aerospace and science: ICNPAA 2008, pp 326-333, C. S. Sivasundaram, Ed, Cambridge Scientific Publishers, 2009 (ISBN 978-1-904868-70-5)	Grunfeld C. P., D. Marinescu	
50	Scale size and life time of energy conversion regions observed by Cluster in the plasma sheet	Ann. Geophys., 27, 4147-4155	Hamrin, M., P. Norqvist, O. Marghitu, A. Vaivads, B. Klecker, L. M. Kistler, I. Dandouras	



51	Occurrence and location of concentrated load and generator regions observed by Cluster in the plasma sheet	Ann. Geophys., 27, 4131-4146	Hamrin, M., P. Norqvist, O. Marghitu, S. Buchert, B. Klecker, L. M. Kistler, I. Dandouras	
52	Planck pre-launch status: the Planck-LFI programme	Astronomy and Astrophysics (2009) (in printing)	Mandolesi N; Bersanelli M., Buttler C, ... Popa L.A., et al...(Planck Collaboration)	
53	Auroral arc and oval electrodynamics in the Harang region	J. Geophys. Res., 114, A03214, doi:10.1029/2008JA013630	Marghitu, O., T. Karlsson, B. Klecker, G. Haerendel, J. McFadden	
54	Planck pre-launch status: the Planck-Mission	Astronomy and Astrophysics (2009), (in printing), <a href="http://www.aanda.org/index.php?option=com_forthcoming&amp;Itemid=18&amp;lang=en#section_12">http://www.aanda.org/index.php?option=com_forthcoming&amp;Itemid=18&amp;lang=en#section_12</a>	Tauber J; Mandolesi M, Pujet, Popa L.A., et al (Planck Collaboration)	
55	Analysis of three-spacecraft data using planar reciprocal vectors: methodological framework and spatial gradient estimation	Ann. Geophys., 27, 3249-3273.	Vogt, J., A. Albert, O. Marghitu	

**TOTAL LUCRARI ISI publicate in 2009= 217**  
**Punctaj cumulati= 365**

**Lucrari acceptate si publicate on line = 55**

## Anexa 6. Brevete de inventie solicitate/acordate

Nr. Crt.	Titlu	Revista oficiala	Inventatori/Titulari	Solicitat/acordat
1	Hexapolar electromagnetic trap intended for trapping of electrically charged microparticles under standard temperature and pressure (STP) reference conditions / Capcana electromagnetica hexapolara pentru stocarea microparticulelor incarcate electric in conditiile standard de temperatura si presiune	BOPI - Buletinul Oficial de Proprietate Intellectuala si Industriala	Ovidiu Sorin Stoican, Bogdan Vasile M. Mihalcea, Gina Gherghinita T. Visan, Cristian Laurentiu M. Dinca, Ion N. Mihailescu	BOPI 10/2009
2	Procedeu de structurare periodica a straturilor subtiri oxidice sol-gel prin procesare cu radiatie coerenta laser in regim de puls	OSIM	Teodorescu Valentin, Nistor Leona, Ghica Corneliu, Dinescu Maria, Scarisoreanu Nicu	Solicitat
3	LAMPE À DÉCHARGE POUR GDS À CHAMP MAGNÉTIQUE AXIAL (Lampa descarcare pentru un spectrometru " glow discharge" cu camp magnetic axial)	Brevet nr. 0950848 /11.02.2009, Franta	Mihai GANCIU PETCU, Mircea UDREA, Agnès TEMPEZ, Patrick CHAPON	Acordat
4	Metoda si dispozitiv pentru cresterea rezolutiei intr-un interferometru cu numarare de coduri asociate franjelor de interferenta	Oficiul de Stat pentru Inventii si Marci	Blanaru C., Simion S.	INFLPR/A/00807/2009.
5	Swept fiber laser source for optical coherence tomography	US Patent Pending	Antonio Lobo Ribeiro, Trifanov Irina, Neagu Liviu si Sami Hendow	Application no.12/565704 confirmation number: 1022
6	Metoda si sistem laser cu pulsuri ultrascurte pentru generare de pulsuri multiple	Oficiul de Stat pentru Inventii si Marci	D. Ursescu	INFLPR confirmation number: 00617
7	Laser cu Mediu Activ in Forma de Lentila, Pompat Transversal cu Diode Laser	Romanian Patent, No. RO122238	T. Dascalu, C. Dascalu	Solicitat: 22.08.2006 Acordat: 27.02.2009
8	Materiale din EVA (copolimer etilen-vinil-acetat) obtinute prin metode noi, complexe de reticulare a elastomerilor prin iradiere cu electroni accelerati in prezenta de monomeri polifunctionali.	Buletin Oficial de Proprietate Industriala- Sectiunea Inventii;	Manaila Elena, Stelescu Maria Daniela, Martin Diana, Craciun Gabriela, Ighigeanu Daniel Paul, Matei Constantin	Publicat cu nr. 125019A2; Buletin nr.11/2009
9	Hydrogen RF-plasma and laser processing of structural defects in silicon facilitating the lift-off of single-crystal layers thinner than 50 nm.	National patent	C. Ghica, L. C. Nistor, V. S. Teodorescu, S. Vizireanu, N. D. Scarisoreanu	Solicitat, 10.09.2009
10	Strat antireflex dur din carbon	OSIM,	Lungu Petrica	Solicitat

	cu legaturi tip diamantifer (DLC-Diamond-Like Carbon) obtinut prin metoda arcului termoionic in vid (TVA)	A00951/20.11.2009:	Cristian, Mustata Ion, Zaroschi Valer Nicolae, Sobetkii Arcadie, Cirstoiu Florentina, Vlăduț Gabriel Cătălin, Matei Virginia	
11	Dispozitiv de obtinere a unei densități stationare de vapori din materiale cu punct de topire ridicat,	OSIM: A00648/20.08.2009	Vladoiu Rodica, Ciupina Victor, Musa Geavit, Lungu Cristian Petrica, Zaroschi Valer	Solicitat
12	“Lampe a decharge pour GDS a champ magnetique axial”	French pattend aplicacion 0950848/11.02.2009	M.Ganciu-Petcu, M.V.Udrea, A.Tempez, P.Chapon	solicitat
13	Source magnétron pour spectromètre à décharge luminescente	French pattend aplicacion PCT/FR2009/05008	M. Ganciu Petcu, C. Diplasu, A. Surmeian, A. Groza, A. Tempez, P.Chapon, M.Casares, O.Rogerieux	solicitat
14	Glow discharge lamp for glow discharge emission spectrometer, has generating unit for generating magnetic field, and presenting high parallelism degree to surface of sample so as to expose plasma, between surface of sample and plasma	FR2926161-A1; WO2009130424-A1	CASARES M, CHAPON P, DIPLASU C, GANCIU P M, GROZA A L, ROGERIEUX O, SURMEIAN A, TEMPEZ A	acordat
15	Echipament pentru depunere de straturi subtiri din precursori gazosi folosind plasma de arc electric cu catod cald	OSIM, Hotararea nr.6/95 din 28.08.2009	G.Musa, C. Surdu-Bob	Acordat
16	Metoda si echipament pentru producerea de microparticule si nanoparticule metalice sferice	Cerere A/00754/2009	C. Surdu-Bob, M.Badulescu	Solicitat

## Anexa 7. Produse , Servicii , Tehnologii

Nr. Crt.	Produs/serviciu/ tehnologie	Date tehnice	Domeniu de utilizare
1	Produs - Implanturi metalice acoperite cu straturi ceramice bioactive (produs)	<ul style="list-style-type: none"> <li>- Implanturi de Ti acoperite cu straturi de grosimi nanometrice (300- 1000 nm) rugoase de hidroxiapatita dopata cu ioni metalici (<math>Mn^{2+}</math>)(3%) si grupari functionale (<math>CO_3^{2-}</math>)(4%).</li> <li>- Aderenta la os cu 15% mai mare decat implanturile acoperite cu HA pura (teste in vivo raportate in "Human osteoblast response to pulsed laser deposited calcium phosphate coatings, A. Bigi, B. Bracci, F. Cuisinier, R. Elkaim, M. Fini, I. Mayer, I. N. Mihailescu, G. Socol, L. Sturba, P. Torricelli Biomaterials, 26, 2381-2385 (2005)")</li> </ul>	Medicina
2	Produs - Senzori optici pentru detectia hidrocarburilor (produs)	<ul style="list-style-type: none"> <li>-Constituit dintr-un brat de referinta si multiple brate de masura.</li> <li>-Partea activa este reprezentata de filme subtiri cu grosime cuprinsa intre 300-500nm de ZnO, transparenta&gt;90%, -capacitate de detectie de 100 ppm gaz</li> </ul>	Chimie, militar
3	Depunere laser pulsata - tehnologie de obtinere de filme subtiri si nanoparticule din materiale anorganice utilizand radiatia laser	<ul style="list-style-type: none"> <li>- Sursa laser excimeri KrF (<math>\lambda=248</math> nm, <math>\tau=25</math> ns)</li> <li>- Camera de reactie (diametru de 45.72 cm) cu posibilitate de vid avansat (<math>10^{-6}</math> Pa)</li> <li>- Camera de reactie cu posibilitate de vid avansat (diametru de 42 cm) (<math>10^{-4}</math> Pa)</li> <li>- Sistem de pompaj (pompa rotativa si pompa turbo-moleculara)</li> <li>- Sistem de incalzire a substratului de depunere</li> <li>- Motoare electrice pentru rotirea materialului tinta si translatarea substratului</li> <li>- Debimetre pentru introducere de gaze ambiante sau reactive in camera de reactie</li> <li>- Joje pentru monitorizarea presiunii</li> </ul>	Electronica, medicina, chimie, metalurgie
4	Evaporare laser pulsata asistata de o matrice – tehnologie de obtinere de filme subtiri din materiale organice si biologice	<ul style="list-style-type: none"> <li>- Sursa laser excimeri KrF (<math>\lambda=248</math> nm, <math>\tau=25</math> ns)</li> <li>- Camera de reactie cu posibilitate de vid avansat (diametru de 42 cm)</li> <li>- Sistem de pompaj (pompa rotativa si pompa turbo-moleculara)</li> <li>- Sistem de racire cu azot lichid pentru a mentine materialul tinta inghetat pe parcursul iradierii laser</li> <li>- Motoare electrice pentru rotirea materialului tinta si translatarea substratului</li> <li>- Debimetre pentru introducere de gaze ambiante sau reactive in camera de reactie</li> <li>- Joje pentru monitorizarea presiunii</li> </ul>	Biologie, medicina, chimie
5	Transfer indus de radiatia laser – tehnologie de sinteza de structuri organice (inclusiv biologice) cu organizare precisa conform unui model prestabilit cu precizie micronica	<ul style="list-style-type: none"> <li>- Sursa laser excimeri KrF (<math>\lambda=248</math> nm, <math>\tau=25</math> ns)</li> <li>- Sistem de translatare x, y cu precizie micronica</li> <li>- Sistem de lentile pentru focalizarea fasciculului laser</li> <li>- Camera ccd pentru focalizarea suprafetei iradiate</li> </ul>	Medicina, electronica, biologie
6	Nanostructuri crescute prin tehnica VLS	Nanostructurile sunt crescute prin absorbtia vaporilor in picaturile de catalizator obtinandu-se diametre de ordinul zecilor de nm	Nanotehnologii
7	Nanopipes prin efect Kirkendall	Prin difuzie termica se trece de la o structura de tip core-shell la o structura tubulara de ordinul nm	Nanofluidica
8	Sigilarea prin sudura cu laser a surselor radioactive cu geometrie cilindrica	Sistemul este format din sursa laser si sistem de deplasare-pozitionare cu 4 axe de libertate; Rezolutia pozitionarii: 2 micrometri; Sistem laser: Nd :YAG;	Tehnologia materialelor nucleare

		Diametru spot laser: 50 micrometri; Sistemul poate fi utilizat pentru surse radioactive cilindrice cu diverse dimensiuni; Sistemul poate fi reconfigurat pentru procesarea de surse radioactive cu geometrie alta decat cea cilindrica; Procesul de sudura este automatizat prin sincronizarea sistemului laser si a sistemului de pozitionare-deplasare;	
9	Sistem pentru texturarea micronica a suprafetelor plane	Sistemul este format din sursa laser, sistem de deplasare-pozitionare cu doua axe de libertate (translatie-translatie) si sistem de scanare cu doua axe; Rezolutia pozitionarii: 50 nm, in bucla inchisa Sistem laser: IVO4; Durata puls laser: 14 ps; Diametru minim spot: 1 micron; Sistemul este destinat procesarii rapida suprafetelor plane	Industria construct. de masini, Tribologie
10	Sistem pentru texturarea micrometrica a suprafetelor cilindrice	Sistemul este format din sursa laser, sistem de deplasare-pozitionare cu doua axe de libertate (rotatie-elevatie) si sistem de scanare cu doua axe; Rezolutia pozitionarii: 500 nm, in bucla deschisa Sistem laser: IVO4; Durata puls laser: 14 ps; Diametru minim spot: 500 nm; Sistemul este destinat procesarii rapide suprafetelor cilindrice	Industria construct. de masini, Tribologie
11	Senzor cu unde acustice de suprafata pentru detectia gazelor toxice	limita de detectie: 10-100 ppm; timp raspuns: 10-50 s; repetabilitate $\pm 10\%$ ; agenti chimici detectati: cloropicrina, acid cianhidric, soman, levizita;	Tehnici de detectie in domeniul militar si de securitate
12	Tehnologia de realizare a nanocompozitului pentru senzori cu unde acustice	nanocompozite: nanoparticule, nanotuburi, fullerene	Tehnici de detectie in domeniul militar si de securitate
13	Tehnologia de depunere a filmului nanocompozit pentru senzori cu unde acustice	filme nanocompozite: nanoparticule, nanotuburi, fullerene impregnate in polimer	Tehnici de detectie in domeniul militar si de securitate
14	Sistem de testare a gazelor toxice si letale	Testare agenti chimici de lupta (cloropicrina, acid cianhidric, soman, levizita, fosgen, etc)	Tehnici de detectie in domeniul militar si de securitate
15	Celule solare sensibilizate cu colorant cu fotoelectrod de TiO <sub>2</sub> obtinut direct prin ablatie laser	Randament global: 1.81% Curent de scurtcircuit: 3.72 mA/cm <sup>2</sup> tensiunea in gol: 767 mV	Energie
16	Celule solare sensibilizate cu colorant cu fotoelectrod de TiO <sub>2</sub> obtinut din nanoparticule produse prin ablatie laser	Randament global: 9.6 % Curent de scurtcircuit: 34.28 mA/cm <sup>2</sup> tensiunea in gol: 763 mV	Energie
17	Celule solare sensibilizate cu colorant cu fotoelectrod de TiO <sub>2</sub> dopat	Randament global: 1,16% Curent de scurtcircuit : 2.08 mA/cm <sup>2</sup> Tensiunea in gol: 750 mV Randamentul global calculat per aria celulei si grosimea stratului de TiO <sub>2</sub> a fost cu 27 % mai mare in cazul in care dopantul a fost aluminiu fata de filmul de TiO <sub>2</sub> nedopat	Energie
18	Laser in picosecunde	Durata de puls sub 500 ps, frecventa de repetitie 10 Hz, energie pe puls de 20 mJ la 1064 nm, 10 mJ la 532 nm, 3 mJ la 266 nm.	Prelucrari de materiale prin ablatie.
19	Instalatie pentru inscriere directa de nanostructuri 2D si 3D prin fotopolimerizare	Gama de lucru 4 x 4 x 4 mm, pasul minim de 100 nm, rezolutie de pozitionare 30 nm, deplasare piezoelectrica 20 x 20 x 20 micrometri, pas de 5 nm,	Inscriere de micro/nanostructuri prin fotopolimerizare cu

	cu laser in femtosecunde	obiective de focalizare: apertura numerica AN = 0.5, 100 X; AN =1.4 cu imersie in ulei, 100 X. Deplasare programabila a probelor controlata de calculator.	absorbție de doi fotoni.
20	Instalatie pentru microprocesari cu laseri cu pulsuri ultrascurte	Gama de lucru: 50 x 50 mm, 25 mm deplasare pe verticala. Pas de 100 nm, precizie de pozitionare submicronica, obiectiv AN = 0.5, 10 X. Deplasare programabila controlata de calculator	Microprocesari de filme metalice pentru componente electronice in domeniul GHz. Microprocesari sub limita de difractie a fasciculului laser.
21	Sistem pentru Spectroscopie Multifotonica cu pulsuri laser femtosecunde	- Domeniu spectral 370 - 800 nm, (upgradabil); - Rezolutie spectrala 0,5 nm (upgradabil); - Sistem de pozitionare/scanare a probei; - Colectarea emisiei luminoase se face in configuratie confocala, cu rezolutie spatiala de pana la 1 mm; - Sursa optica: 1) laser 200 fs, 2KHz 2) laser 15 femtosecunde, 75 MHz	Caracterizare emisiei optice in regim de excitare prin absorbție bifotonica a probelor solide, semiconductori, materiale biologice.
22	Nanopulbere carbonica cu structura turbostratica	<ul style="list-style-type: none"> <li>• Particule cu morfologie echiastă, de forma aproape sferica si structura compacta</li> <li>• Dimensiunea particulelor: 20 ÷ 60 nm, prezente aglomerari</li> <li>• Structura compusa din unitati structurale de foi grafenice cu intinderi cuprinse intre 15 si 35 Å</li> <li>• Rezistivitate: in domeniul <math>5 \cdot 10^{-2}</math>- <math>1 \cdot 10^{-1}</math> Ω·cm (la o densitate volumica de 1.23 g/cm<sup>3</sup>).</li> <li>• Suprafata specifica: 30 ÷ 80 m<sup>2</sup>/g</li> </ul>	Nanocompozite pe baza de rasini epoxi si fenolice pentru industria aeronautica si de transport
23	Nanopulbere carbonica cu structura fulerenica	<ul style="list-style-type: none"> <li>• Particule cu morfologie echiastă, de forma aproape sferica si structura afânată</li> <li>• Dimensiunea particulelor: 10 ÷ 25 nm</li> <li>• Structura compusa din structuri cu un grad ridicat de curbura: fullerene C<sub>60</sub> ÷ C<sub>200</sub>, structuri tip "ceapa", carbon amorf hibridizat sp<sup>3</sup></li> <li>• Rezistivitate: in domeniul <math>5 \cdot 10^{-2}</math>- <math>1 \cdot 10^{-1}</math> Ω·cm (la o densitate volumica de 1.23 g/cm<sup>3</sup>).</li> <li>• Suprafata specifica: 100 ÷ 350 m<sup>2</sup>/g</li> </ul>	Nanocompozite pe baza de rasini epoxi si fenolice pentru industria aeronautica si de transport
24	Nanopulbere carbonica cu structura de benzi grafenice	<ul style="list-style-type: none"> <li>• Particule de forma dezordonata, cu structura poroasa</li> <li>• Dimensiunea particulelor: 30 ÷ 60 nm, prezente aglomerari</li> <li>• Structura compusa din benzi de foi grafenice cu lungimi de zeci de nm si carbon amorf hibridizat sp<sup>3</sup></li> <li>• Rezistivitate: in domeniul <math>2 \cdot 10^4</math> – <math>5 \cdot 10^4</math> Ω·cm (la o densitate volumica de 1.23 g/cm<sup>3</sup>) – senzitivant SF<sub>6</sub> -</li> <li>• Suprafata specifica: 80 ÷ 150 m<sup>2</sup>/g</li> </ul>	Nanocompozite pe baza de rasini epoxi si fenolice pentru industria aeronautica si de transport
25	Compozite fibra de carbon/matrice epoxidica aditivata cu nanocarbon	Rezistivitatea la rupere 650 Mpa, modul de elasticitate 14,7 GPa	Industria aeronautica si de transport
26	Compozite fibra de carbon/matrice fenolica aditivata cu nanocarbon	Rezistenta la rupere 530 Mpa, modul de elasticitate 14,7 GPa	Industria aeronautica si de transport
27	Tehnologia de realizare a materialelor compozite cu ranforsare din fibra de sticla si fibra de carbon si matrice epoxidica aditivata cu nanocarbon	Tehnologie pusa la punct in laborator in cadrul Proiectului 71-125/2007	Repere pentru industria aeronautica si de transport
28	Tehnologia de realizare a materialelor compozite cu ranforsare din fibra de sticla si fibra din carbon si matrice fenolica aditivata cu nanocarbon	Tehnologie pusa la punct in laborator in cadrul Proiectului 71-125/2007	Repere pentru industria aeronautica si de transport

29	Filme compozite polimer/nanocarbon	Material de umplere: pulbere nanometrica de carbon sintetizata prin piroliza laser Matrice polimerica: Polietilena Structura film: sandwich Rezitivitatea electrica a fetei conductoare: $\rho \sim 10^4 \Omega \cdot \text{sqr}$ . Rezitivitatea electrica a fetei izolatoare: $\rho \sim 10^{17} \Omega \cdot \text{sqr}$ . VCR $\sim 1000 \Omega/V$ TCR $\sim 1000 \Omega/\text{grd}$ .	Electrotehnica/Electronica
30	Tehnologie de transfer a unor structuri nanometrice de pe un substrat pe altul: "Inverse stamping Method"	Substrat initial: Orice tip de substrat Substrat final: polimer termoplastic Conditie de transfer: structura nanometrica sa fie slab aderenta la substratul initial Caracteristici pozitive ale metodei: 1.Structura nanometrica este transferata integral pe noul substrat 2.Structura nanometrica este complet aderenta la noul substrat	Nanotehnologii
31	Nanoparticulelor noi de oxid de fier (tip maghemita/magnetita) cu diametre controlate si dispersie mica	Produse realizate in cadrul proiectului C1 71-083/2007 precum si in cadrul si proiectului european FP6 Bonsai (nr. 037639/2007) -Dimensiunea particulelor: $3 \div 10 \text{ nm}$ -Stabilirea concentratiilor critice la care acestea manifesta caracteristici magnetice tipice domeniului nanoscalar - tehnicile de obtinere prin piroliza laser a nanoparticulelor pe baza de fier necesare pt sinteza fluidelor magnetice coloidal stabile	Nanoparticule de oxid de fier care permit dezagregarea apoasa si functionalizarea lor pentru aplicatii biocompatibile si biomedicale (metode de investigare medicala MRI-magnetic resonance imaging).
32	Nanoparticule pe baza de fier pentru sinteza de nanofluid magnetice coloidal stabile in apa,	Produse realizate in cadrul proiectului C1 71-083/2007 precum si in cadrul si proiectului european FP7 MagPro2Life -Functionalizarea si biocompatibilizarea nanofluidelor magnetice pe baza de nanopulberi obtinute prin piroliza laser	Industria bio-farmaceutica
33	Nanoparticulelor noi de nanocompozite fier-carbon cu diametre controlate si dispersie mica	Produse realizate in cadrul proiectului C1 71-083/2007 precum si in cadrul si proiectului european FP7 MagPro2Life -Dimensiunea particulelor: $12 \div 15 \text{ nm}$ -Morfologie prioritar core-shell (mie-z-invelis)	Nanocompozite pe baza de fier pentru domeniul biotehnologiilor si al produselor bio-farmaceutice
34	Nanocompozite staniu/fier si oxid de staniu/ oxid de fier	Produse realizate in cadrul proiectului IDEI 431/2007 - Nanoparticule compozite oxid de staniu dopat cu fier in proportie de Fe in at% 3 – 10 - Morfologie cvazi-nanocristalina, cu dimensiuni medii de particula de pana in 10 nm	Aplicatii in domeniul fotocatalizei si al senzorilor
35	Tehnologie de depuneri de straturi subtiri.	Tehnica magnetron Sputtering de radio frecventa	Standard SR EN ISO 9001/14001:2005 / valabil pana la 30.08.2011
36	Sistem de studiu al fluorescentei indusa laser pe micropicaturi cu continut controlat	Domeniu spectral de masura, UV-VIS; Volum micropicaturi $1 \mu\text{l}$ si ml; Rezolutie temporala $\geq 1 \text{ ns}$ , Limita de detectie, $10^{-6} \text{ M}$	- masurarea continutului molecular al unor urme de substante in probe lichide prin fluorescena si fosforescena induse cu laser - cercetari in domeniul stiintei sistemelor micrometrice si a microtehnologiilor - cercetari in domeniul nanotehnologiilor si nanomedicinei
37	Sisteme de masurare a proprietatilor fotofizice: generare oxigen singlet, absorbtie tranzienta	Domeniu spectral de masura, UV-VIS, NIR, Limite de detectie $10^{-5} \text{ M}$	- aplicatii ale spectroscopiei in biomedicina (fototerapia cancerului), industria farmaceutica

	(fotoliza flash);		
38	Sistem de generare si control a emisiei de tip haotic a laserilor cu semiconductori	Fluctuatii neliniare (haotice) de inalta frecventa - dom. GHz, a puterii emise; domeniu vizibil	-masurarea comportarii haotice a sistemelor optice si a sistemelor emitatoare de radiatie electromagnetica -transmisia codificata a datelor pe purtatoare optica
39	Sistem de spectroscopie optoacustica	Domeniu spectral 200-800 nm, Limite de detectie $10^{-3}$ ppm	-masurarea continutului molecular al unor probe si a urmelor de substante in lichide prin efect optoacustic
40	Sistem de masurare prin Laser Induced Break Down Spectroscopy de probe solide	Domeniu spectral 200-800 nm, Limite de detectie $10^{-3}$ ppm	-masurarea continutului atomic al unor probe solide - aplicatii ale spectroscopiei in protectia mediului si monitorarea biosferei
41	Sistem de spectroscopie Raman pentru probe lichide, solide	Dom. de frecv.: $500-3000\text{ cm}^{-1}$ , limite de detectie 20mM	-masurarea continutului molecular al unor probe lichide/solide prin imprastiere Raman, - aplicatii ale opticii si spectroscopiei in protectia mediului, biomedicina, industria farmaceutica
42	Sistem de spectroscopie de absorbtie intracavitate CRDS	Dom. spectral uv-vis, limite detectie: 1 ppb gaze, $10^{-6}$ M lichide	-masurarea continutului atomic si/sau molecular al unor probe si a urmelor de substante in gaze/lichide prin CRDS -aplicatii ale spectroscopiei in protectia mediului, biologie, industria chimica
43	Tomo-Analytic – Sistem dual Combined 3-D X-Ray microtomograph and microbeam fluorescence system <a href="http://tomography.inflpr.ro">http://tomography.inflpr.ro</a>	Microtomografie: Rezolutie spatiala $\approx 20\mu\text{m}$ Rezolutie in densitate $> 1\%$ Dimensiuni probe: Diametru $< 40\text{ mm}$ Inaltime $< 200\text{ mm}$ Timp reconstructie $\approx 5\text{ min}$ Microfluorescenta: Rezolutie spatiala $\approx 20\mu\text{m}$ Rezolutie in grosime $\approx 2\%$ din grosimea stratului Dimensiuni probe: $100 \times 100\text{ mm}^2$	- Caracterizarea geometriei si compozitiei straturilor subtiri - Tomografie pe probe biologice - Tomografie pe materiale compozite
44	Tehnologie de acoperire cu W a placilor din materiale carbonice pentru primul perete la instalatiile de fuziune nucleara	- Grosime strat: $20-25\ \mu\text{m}$ - Rezistente la socuri termice pana la $2000\text{ }^\circ\text{C}$	Instalatiile de fuziune nucleara tokamak (JET – Joint European Torus), UK si ASDEX Upgrade, Germania
45	Tehnologie de productie a markerilor W/Mo pentru studiul eroziunii peretelui in instalatiile de fuziune nucleara	- Structura multistrat Mo ( $2-3\ \mu\text{m}$ ) / W ( $12-14\ \mu\text{m}$ ) / Mo ( $3-4\ \mu\text{m}$ ) / W ( $3-4\ \mu\text{m}$ )	Instalatiile de fuziune nucleara tokamak (JET – Joint European Torus), UK
46	Tehnologie de tratament combinat intre alierea cu laserul si nitrurarea ionica pentru producerea unor straturi cu rezistenta mare la oboseala (Cooperare cu Institutul Fraunhofer IPT, Germania in cadrul Proiectului CURARE din PC-7)	- Adancime strat $\sim 1\text{ mm}$ , duritate superficiala $\sim 1000\text{ HV}$	Matrite de forjare
47	Tratament in plasma pentru	- grosime $4-10\ \mu\text{m}$	- industria cauciucului



	producerea unor straturi anti-adezive la contactul cu cauciucul nevulcanizat (PASK)	- proprietati antiadezive superioare teflonului	(tehnologia se aplica pe baza de comenzi pentru firma Michelin)
48	Tratament de durificare superficiala in plasma pentru componente de la masinile de injectie material plastic	- adancime strat ~ 0,4 mm - duritate ~ 900 HV	- masini de injectie plastic (SC ELUR SRL, Braila) (Se aplica pe baza de comenzi)
49	Procedura pentru etalonarea analizoarelor optice de spectru	- domeniul spectral: 1520 nm – 1610 nm; - nivel de putere: 100 $\mu$ W - linearitatea raspunsului: intre -5 dB si – 65 dB - rezolutie spectrala: 1 pm	Evalunarea analizoarelor de spectru optice (putere si lungime de unda)
50	Ferestre transparente la raze X. Beneficiar: Firma HeikkiSipila Oy, Finlanda	Acoperiri cu Be de grosimi foarte reduse (1-7 micrometri) utilizand metoda TVA	Tehnologii spatiale
51	Incapsulare filtre sinterizate si asistenta montaj/Contract cu Univ Ovidius Constanta	Lungime filtru: 200 mm, orificiu de confinare: 0,5 mm	Cercetare/dezvoltare
52	Tunuri TVA/contract cu Univ Ovidius Constanta	Dimensiuni: H=100mm, Diametru: 40 mm	Cercetare/dezvoltare
53	Grile conductoare (produse)	20 $\Omega$ /cm	Ecrane electromagnetice
54	Membrane metalice autosustinite (produse)	Ag, 2 $\mu$ m	Filtre optice pentru radiatia X, oglinzi semitransparente, Medii de franare in domeniul nuclear
55	Strat anticoroziv (servicii)	Pe baza de Cr, 10 $\mu$ m	Toate domeniile unde este importanta protectia impotriva corodarii chimice

## Anexa 8. Lucrari stiintifice / tehnice in reviste de specialitate fara cotatie ISI

Nr. Crt.	Titlu	Revista, vol., pg., anul	Autori
1	Diffuse optical tomography (DOT) with serial approach	Journal of Optoelectronics and Advanced Materials - Symposia, Vol. 1, pp. 747-753 (2009)	D. C. Dumitraş, D. C. Duţu, C. Matei, A. M. Măgureanu and M. Paţachia
2	Two spectral shaping methods of a broadband fibre source for biomedical OCT imaging	Scientific Bulletin-Series A-Applied Mathematics And Physics Vol:71, Pp: 51-60, 2009	Cernat Ramona, Dobre George M., Podoleanu Adrian Gh.
3	UV radiation-induced surface modulation time evolution in polymeric materials	Proc. SPIE 7366-1U (2009)	I. Apostol, D. Apostol, V. Damian, I. Iordache, N. Hurduc, I. Sava, L. Sacarescu, I. Stoica
4	Introduction to scatterometry: an optical metrology technique for grating characterization	Proc. of 5th International Conference Metrology & Measurements Systems METSIM 2009, editura Noua, pp. 19-32 (2009)	Petre Catalin Logofatu, John Robert McNeil
5	The Quantgrid project (RO) - Quantum security in grid computing applications	Romanian Journal of Physics, Vol. 54, Issue 5-6, Pag. 441 - 448, 2009	Dima M., Dulea M., Pauna E., Petre M., Mircea B., Stoica M., Udrea M., Sterian R., Sterian P.
6	Extending the visual capability of a WLI	Journal of Optoelectronics and Advanced Materials - Symposia, 1(4) 725-728 (2009)	B. Ionita, V. Damian, D. Apostol, I. Apostol, R. Muller
7	Nano-metrology of micro-systems	Proc SPIE 7297 [1G] (2009)	F. Garoi, D. Apostol, P. Schiopu, P. C. Logofatu, V. Damian
8	Detection of chemical warfare agents using surface acoustic wave sensors with different polymer coatings	IEEE CAS 2009 Proceedings, 263-266, ISBN 978-1-4244-4413-7	C. Viespe, C. Grigoriu, C. Toader, N. Grigoriu
9	Diffraction experiments with the spatial light modulator: the boundary between physical and digital optics	, Proc SPIE 7297 [04] (2009)	Petre Catalin Logofatu, Adrian Sima, Dan Apostol
10	IntelliWave™ interferometric analysis software in laser interferometry laboratory	Proc SPIE 7297-[44] (2009)	B. Ionita, M. Rosu, D. Apostol, A. Sima, V. Damian
11	White light interferometry applications in nanometrology	Proc SPIE 7297-[53] (2009)	V. Damian, M. Bojan, P. Schiopu, I. Iordache, B. Ionita, D. Apostol
12	High accuracy length measuring set up for optical encoder calibration	, Proc SPIE 7297-[54] (2009)	I. Iordache, O. Iancu, P. Schiopu, D. Apostol
13	Photoresist films patterning at 355 nm	Proc. IEEE CFP09 CAS PRT), pp. 245-248 vol. 1 (2009)	V. Damian, Ileana Apostol, Raluca Müller, Laura Eftime
14	Study of (As <sub>2</sub> Se <sub>3</sub> ) <sub>100-x</sub> (AgI) <sub>x</sub> thin films prepared by PLD and VTE methods	Nanostructured Materials for Advanced Technological Applications, Springer Science + Business Media, 329-334, 2009	T. Petkova, V. Ilcheva, C. Popov, J. P. Reithmaier, G. Socol, E. Axente, I. N. Mihailescu, P. Petkov, T. Hineva
15	Epitaxial-like thin films of La <sub>5</sub> Ca <sub>9</sub> Cu <sub>24</sub> O <sub>41</sub> grown on MgO and SrTiO <sub>3</sub> substrates by Pulsed Laser Deposition	E-MRS fall meeting, Warsaw, Proceedings of Simposium I. Functional and Structural Ceramic Matrix Composites (CCMC). – p. 182-188 (2009)	M. Pervolaraki, J. Giapintzakis, G. Socol, N. Stefan, F. Sima, C. G. Ristoscu, I. N. Mihailescu, A. M. Vlaicu, R. Saint-Martin, A. Revcolevschi
16	Trap space charge limited current in pulsed laser deposition AlN:Cr films	CAS Proceedings, Volume 2, page 375-378, 2009	S. Simeonov, I. Minkov, A. Szekeres, S. Grigorescu, G. Socol, C. Ristoscu, I. N. Mihailescu
17	Organic-Inorganic Hybrid Composites	Series in Micro and Nanoengineering, 14(New Application of Micro and Nanotechnologies), M.	M. Olaru, T. Buruiana, R. Cristescu, I.N. Mihailescu

		Zaharescu, L. Giurgiu, D. Dascalu, Eds., Ed. Academiei Romane, Bucuresti, 99-110 (2009).	
18	Isoconversional linear integral kinetics of the non-isothermal evaporation of 4-[(4-chlorobenzyl)oxy]-4'-trifluoromethyl-azobenzene	Studia Universitatis Bades-Bolyay 3, 185-192, 2009	A. Rotaru, M. Goşa, E. Segal
19	Capitol: PLD of Piezoelectric and Ferroelectric Material	Springer series in Material Science, 130, "Laser - Surface Interactions for New Materials Production", P.M.Ossi and A. Miotello, 323-347, 2009	M. Dinescu
20	Capitol:Advanced biomimetic implants based on nanostructured coatings synthesized by pulsed laser technologies"	Springer series in Material Science, 130, "Laser - Surface Interactions for New Materials Production", P.M.Ossi and A. Miotello, 235-260, 2009	I. N. Mihailescu, C. Ristoscu, A. Bigi, I. Mayer
21	EEG/MEG Source Imaging: Methods, Challenges, and Open Issues	Computational Intelligence and Neuroscience, vol. 2009, Article ID 656092, 12 pages, 2009	K. Wendel, O. Väisänen, J. Malmivuo, N. G. Gencer, B.Vanrumste, P. Durka, R. Magjarević, Selma Supek, M. L. Pascu, H. Fontenelle, R. G. de Peralta Menendez
22	In vivo studies of the effects of alkyl substituted Benzo[b]pyridinium compounds exposed to optical radiation	Journal of Optoelectronics and Advanced Materials – Symposia, vol. 1, nr. 4, pg.761-766, 2009	R.A.Pascu, M.Trifu, M.Dumitrescu, A.Mahamound, A.Staicu, M.Dicu, B.Carstocea, M.L.Pascu
23	Electronic Spectroscopy of Biological Molecules in Supersonic Jets: The Amino Acid Tryptophane	AIP Conf. Proc., vol. 1084, pg. 539-544, 2009	F. Huisken, G. Rouillé, M. Arold, A. Staicu, Th. Henning
24	Increase of Cisplatin therapeutic index through optical irradiation	Journal of Optoelectronics and Advanced Materials – Symposia, vol. 1, nr. 4, pg. 754-760, 2009	R. Fumarel, G. Murgoci, P. Albert, A. Hurduc, M.L. Pascu
25	In vivo studies of the effects of alkyl substituted Benzo[b]pyridinium compounds exposed to optical radiation	AIP Conf. Proc., vol.1142, pg. 8-14, 2009	R.A.Pascu, M.Trifu, M.Dumitrescu, A.Mahamound, A.Staicu, M.Dicu, B.Carstocea, M.L.Pascu
26	Increase of Cisplatin therapeutic index through optical irradiation	AIP Conf. Proc., vol. 1142, pg. 1-7, 2009	R. Fumarel, G. Murgoci, P. Albert, A. Hurduc, M.L. Pascu
27	A hybrid installation for submicrometer-size particles collection by combined DC corona discharge, short pulse corona discharge and soft X-ray irradiation	Proceedings of the 11 <sup>th</sup> International Conference on Environmental Science and Technology Chania", Crete, Greece, 3-5 September 2009, Full Paper Vol. B, 602-609, ISBN 978-960-7475-46-6, (2009)	D. Martin, C. Grigoriu, I. Nicolae, D. Ighigeanu, C. Sima, C. Matei
28	X-ray laser developments at Phelix	Proceedings of SPIE - The International Society for Optical Engineering 7451, art. no. 74510M (2009)	Kuehl, T., Aurand, B., Bagnoud, V., Ecker, B., Eisenbarth, U., Fils, J., Hochhaus, D., Javorkova, D., Ursescu, D., Neumayer, P., Zielbauer, B., Zimmer, D., Habib, J., Kazamias, S., Klisnick, A., Ros, D., Seres, J., Spielmann, C.
29	Simple Collinear Pump-Probe Set-Up for Chirped Pulse Amplification Laser Systems	JOAM, Vol.1 ISS.4 (2009).	Ursescu, D., Ionel, L.
30	Spatial and temporal dynamics of ultra-short pulses coherent beam combining	Proceedings of SPIE , Vol: 7501 (2009)	D. Ursescu, L. Ionel
31	"Femtosecond Laser Induced Periodic Surface Structures on ZnO Thin Films"	Journal of Laser Micro/NanoEngineering, vol. 4, p.7-10 (2009).	M. Zamfirescu, M.Ulmeanu, F. Jipa, O. Cretu, A. Moldovan, G. Epurescu, M. Dinescu and R. Dabu

32	Electrical resistivity of polymer/nanocarbon composite and sandwich free standing film, synthesized through an "inverse stamping" method	Journal of Nanostructured Polymer and Nanocomposites, 5/1 3-8 , 2009	I. Sandu, I. Morjan, F. Dumitrache, C.T. Fleaca, I. Voicu, R. Alexandrescu, I. Soare, L. Gavrilă-Florescu, C. Luculescu, M. Ploscaru, E. Popovici, E. Dutu
33	Characterization of magnetic nano-fluids via Mossbauer spectroscopy	Hyperfine Interactions 191, 55-60 (2009)	G. Filoti, V. Kuncser, G. Schinteie, P. Palade, I. Morjan, R. Alexandrescu, D. Bica, L. Vekas
34	Properties of some borate glasses from BaO-TiO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> system	Rev Romana de Materiale 2009	Lucica Boroica, D. Radu, R. Medianu, I.S. Boroica
35	Obtaining and Characterization of Borate Glasses with TiO <sub>2</sub>	P.B. Sci. Bull., 2009, ISSN 1454-2331	Lucica Boroica, D. Radu, B. A. Sava, R. V. Medianu
36	Thin films for solar cell applications obtained from complex targets by magnetron sputtering on new substrates	P.1, Ed. Academiei Romane, 2009, p. 196-207 (ISBN 978-975-27-1903-2)	Lucica Boroica, V. R. Medianu, Sanziana Ioana Boroica
37	RE <sup>3+</sup> doped SrWO <sub>4</sub> as laser and nonlinear active crystals	Rom. J. Phys. <b>54</b> (9-10), 919-928 (2009)	A. Lupei, A. Achim, V. Lupei, C. Gheorghe, L. Gheorghe, S. Hau
38	New directions for performance enhancement and power scaling of the Nd lasers	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 621-629 (2009)	V. Lupei
39	End-Pumped Yb:KGW Laser Mode-Locked by Saturable Absorber Mirror	J. of Optoelectron. & Adv. Mat. (JOAM) – Symposia, <b>1</b> (4), 658-661 (2009)	T. Dascalu, O. Sandu, N. Vasile, A. Leca, N. Pavel, and T. Taira
40	Optical and Mössbauer spectroscopy studies on YVO <sub>4</sub> :Eu nanophosphor	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 670-672 (2009)	A.M. Voiculescu, E. Cotoi, O. Toma, S. Georgescu, S. Constantinescu, I. Bibicu
41	Diode-Pumped Nd-based Lasers for Generation of Visible Radiations	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 673-676 (2009)	N. Pavel, N. Vasile, A. Leca, and T. Dascalu
42	A Diode-Pumped Acoustooptic Q-switched Nd:YAG Laser for Marking Applications	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 677-680 (2009)	N. Vasile, A. Leca, N. Pavel, and T. Dascalu
43	Dynamics of the upconversion laser emission at 850 nm in Er:YLiF <sub>4</sub>	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 681-684 (2009)	O. Toma, S. Georgescu, A. M. Voiculescu, E. Cotoi
44	Synthesis and spectroscopic characterization of upconversion nanophosphor NaYF <sub>4</sub> doped with erbium and codoped with ytterbium	J. of Optoelectron. & Adv. Mat. (JOAM) - Symposia, <b>1</b> (4), 689-692 (2009)	E. Cotoi, A. M. Voiculescu, S. Georgescu, O. Toma, T. Rosu, L. Bran, E. Borca, S. Hodorozea
45	Trapping, anomalous transport and quasi-coherent structures in magnetically confined plasmas	electronic preprint arXiv.org/Physics0903.2223 (2009) Plasma and Fusion Research 4 (2009) 053-1:8	M. Vlad, F. Spineanu
46	A field theoretical approach to the description of coherent structures in two-dimensional fluids and plasmas	electronic preprint arXiv.org/Physics0909.2583 (2009).	F. Spineanu, M. Vlad
47	Réalisation and diffusion of the second at Ine-syrte	Revue française de métrologie nr.18, Volume 2009-2	S. Bize, P. Laurent, P. Rosenbusch, J. Guena, D. Rovera, M.Abgrall, G. Santarelli, P. Lemonde, F. Chapelet, P.Wolf, C. Mandache, A. Luiten, M. Tobar, C. Salomon, A. Clairon
48	Effect of an external electrode on the characteristics of a low frequency discharge	J. Plasma Fusion Res. Series, vol. 8, pp. 804-808, 2009	O. S. Stoican
49	The effect of cold atmospheric plasma jets on B16 and COLO320 tumoral cells	Romanian Archives of Microbiology and Immunology, no. 3, 2009.	Andreea Roxana Lupu, N. Georgescu, Ana Călugăru, Lidia Cremer, G. Szegli, F. Kerek
50	Characterization of Superconducting Wires by Cone-Beam Micro-Tomography.	Proceedings IEEE Nuclear Science Symposium and Medical Imaging Conference (2008 NSS/MIC), Vols 1-9 Pages: 5513-5516, ISBN: 978-	I.Tiseanu, T. Craciunescu, P. Badica, G.V. Aldica, M. Rindfleisch

		1-4244-2714-7.	
51	Upgrade of the JET tangential gamma-ray spectrometer. Conceptual design	Proceedings - Symposium on Fusion Engineering, art. no. 5226468, 2009, ISBN: 9781424426362	Zoita, V. , Craciunescu, T. Tiseanu, I. , Kiptily, V. , Edlington, T. , Prior, P. , Sanders, S. , Syme, B. , Curuia, M. , Soare, S. , Anghel, M. , Rios, L. , Braic, V. , Braic, M. , Blanchard, P., Gros, G. , Murari, A.
52	Neutron fluence measurements on the JET tokamak by means of super-heated fluid detectors	IEEE International Conference on Plasma Science, art. no. 5227402, 2009, ISBN: 9781424426188.	Zoita, V. , Conroy, S. , Craciunescu, T. , Edlington, T. , Gatu Johnson, M. , Gherendi, M. , Hellesen, C. , Jednorog, S. , Kiptily, V. , Murari, A. , Pantea, A. , Popovichev, S. , Prokopowicz, R. , Scholz, M.
53	Electron Beam Treatment as a Non-conventional Preservation Method of Nutritional Supplements based on Vegetal Materials	In "Food Science Research and Technology" (ed. Isaak Hulsen, Egon Ohnesorge), ISBN 978-1-60741-848-1, pp 169 – 192, Nova Science Publishers, Inc., New York, 2009	Monica R. Nemțanu, Mirela Brașoveanu
54	Effects of Electron Beam Irradiation on Aqueous Solution of Corn Starch	Buletinul Institutului Politehnic din Iasi, Tomul LV (LIX), Fasc. 1, sectia Matematica. Mecanica teoretica. Fizica, 129 – 136, 2009	Monica R. Nemțanu, Mirela Brașoveanu
55	Modifications of Viscoelastic Properties of Polysaccharides by Gamma Irradiation	Arab J. Nucl. Sci. Appl. 42, 261-266, 2009	F. Mihai, V. Tripadus, M.R. Nemtanu and D.C. Negut
56	Effects of Ionizing Radiation on the Antioxidant and Antimicrobial Activities of Sea Buckthorn Oil	Acta Horticulturae (ISHS) 826, 255-260, 2009	M.R. Nemțanu, R. Minea, E. Mazilu, S. Setnic, E. Mitru, C. Balotescu, M. Bucur, C. Oproiu, G. Mihăescu, L.M. Dițu
57	Microbial Decontamination Study of Some Medicinal Plants by Plasma Treatment	Acta Horticulturae (ISHS) 826, 205-212, 2009	S.B. Kalkasliel-Souza, I.S. Kikuchi, R.D. Mansano, A.J. Moreira, M.R. Nemțanu, T.J.A. Pinto
58	Experiments and Simulations on the DIADIN Electron Gun	Electrotehnica & Electronica 5-6, 46-51, 2009	O. Marghitu, R. Beker, S. Marghitu, C. Oproiu
59	Combined Microwave and Electron Beam Exposure Facilities for Medical Studies and Applications	Journal of Microwave Power and Electromagnetic Energy (JMPEE), Vol.43, No.3, pp. 12-20, 2009	D. Martin, S. Cincă, I. Margaritescu, M. Neagu, N. Iacob, D. Ighigeanu, C. Matei, G. Craciun, E. Manaila, D. Chirita, M. Moiescu
60	Cell Investigations Simultaneously with Exposure to 2.45 GHz Microwaves	JMPEE, Vol.43, No.3, pp. 21-25, 2009	D. Martin, S. Cincă, I. Margaritescu, M. Neagu, C. Matei, D. Ighigeanu, G. Craciun, E. Manaila, D. Chirita, M. Moiescu
61	Combined Effects of Microwaves, Electron Beams and Polyfunctional Monomers on Rubber Vulcanization	JMPEE, Vol.43, No.3, pp. 26-34, 2009	E. Manaila, D. Martin, D. Zuga Stelescu, G. Craciun, D. Ighigeanu, C. Matei
62	Vaccine Preparation by Radiation Processing	JMPEE, Vol.43, No.2, pp. 65-70, 2009	G. Craciun, D. Martin, I. Togoe, L. Tudor, E. Manaila, D Ighigeanu, C. Matei
63	Hybrid Technology with Microwaves, Electron Beams and Catalysts for VOCs Removal	JMPEE, Vol.43, No.3, pp. 4-11, 2009	I. Calinescu, D. Ighigeanu, D. Martin , C. Matei, A.Trifan
64	SO <sub>2</sub> and NO <sub>x</sub> Removal by Microwave and Electron Beam Processing	JMPEE, Vol.43, No.1, pp. 44-50, 2009	D. Ighigeanu, I. Calinescu, D. Martin, C. Matei
65	Measurement of radiation effects on active and passive optical fiber components	Proceedings XIX IMEKO World Congress - Fundamental and Applied Metrology, September 6-11, 2009, Lisbon, Portugal, CD	Dan Sporea, Adelina Sporea, Constantin Oproiu, Rodica Georgescu, Ion Vata
66	Comparison of $\gamma$ and $\beta$ -ray irradiation	Proceedings 10th European	A. Alessi, S. Agnello, F. M.

	effects in sol-gel Ge- doped SiO <sub>2</sub>	Conference on Radiation Effects on Components and Systems – RADECS 2009, 14-18 September, 2009, Bruges-Belgium, CD	Gelardi, D. G. Sporea, C. Oproiu
67	Determining Aerosol Radiative Properties Using the Integrating Nephelometer	Remote Sensing of Clouds and the Atmosphere XIV. Edited by Picard, Richard H.; Schäfer, Klaus; Comeron, Adolfo; Kassianov, Evgueni I.; Mertens, Christopher J.. Proceedings of the SPIE, Volume 7475 (2009)., pp. 74750W-74750W-9 (2009).	Laura Mihai, Sabina Ștefan, I. Ungureanu
68	Hydrogen-plasma induced platelets and voids in silicon wafers	Accepted for publication in Romanian Reports in Physics, 2010	C. Ghica, L. C. Nistor, B. Mironov, S. Vizireanu
69	Dust particles interaction with plasma jet	AIP Proceedings 1188, 742 (2009).	C. M. Ticoș, I. Jepu, C. P. Lungu, P. Chiru and V. Zaroschi
70	Preparation and Characterization of Multifunctional, Nanostructured Coatings Using Thermionic Vacuum Arc Method	Frontier of Applied Plasma Technology (Edited by Osaka University, Japan), Vol.2 July 2009, pp1-6.	Cristian P. Lungu, Ion Mustata, Alexandu Anghel, Corneliu Porosnicu, Ionut Jepu, Catalin Ticos, Ana M. Lungu, Mihai Ganciu, Arcadie Sobetkii, Gheorghe Honciuc, and Patrick Chapon
71	Study on the buffer-gases role connected with the halogen nature in the xenon-halides excimer emission mechanisms	Advances in Applied Plasma Science, Vol.7, Pages 195-188, 2009	L.C. Ciobotaru, C. Porosnicu
72	Aqueous Solution Purification by Bubbling Underwater Discharges,	Advances in Applied Plasma Science, Vol.7, 2009	C. P. Lungu, I. Mustata, N. Georgescu, A. M. Lungu, V. Zaroschi, T. Velea, D. Stanciu, V. Predica,
73	Thermionic vacuum arc deposited Al-doped amorphous nanocomposite coatings,	Journal of Non-Oxide Glasses, Volume 1, Number 2, June 2009, pp. 175-182,	C.P.Lungu, V.Ionescu, M. Osiac, C. Cotarlan, O. Pompilian, A.M.Lungu, V. Ciupina,

## Anexa 9. Comunicari Stiintifice prezentate la conferinte internationale

Nr. Crt.	Titlu comunicarii/ tip prezentare	Conferinta, locul, tara, data	Autori
1	"Extreme Light Infrastructure (ELI) and hadron therapy", (Invited lecture)	First International Workshop on Radiotherapy with Neutrons, Protons and Carbon Ions Beams RNPB '09, Predeal, România, 27 February-1 March 2009	D. C. Dumitraş, R. Dabu, D. C. A. Duţu, C. Matei, C. Achim, M. Paţachia, M. Petruş, A. M. Bratu, Ş. Băniţă
2	"High power extracavity laser photoacoustic spectroscopy", (Invited lecture)	18 <sup>th</sup> International Laser Physics Workshop LPHYS'09, Barcelona, Spain, 13-17 July 2009	D.C.Dumitraş
3	"Calibration and artefact minimization in a two wavelength cw diffuse optical tomography system", (Oral presentation)	18 <sup>th</sup> International Laser Physics Workshop LPHYS'09, Barcelona, Spain, 13-17 July 2009	D. C. Duţu, D. C. Dumitraş, M. Paţachia, C. Matei
4	"Laser photoacoustic spectroscopy for exhaled biomarker measurements", (Invited lecture)	II International Symposium Topical Problems of Biophotonics TPB-2009, Optical Bioimaging/Workshop, Nizhny Novgorod, Russia, 19- 24 July 2009	D. C. Dumitraş, D. C. A. Duţu, M. Patachia, A. M. Bratu, M. Petruş, C. Achim
5	"Multispectral CW diffuse optical tomography system: testing and calibration", (Oral presentation)	II International Symposium Topical Problems of Biophotonics TPB-2009, Optical Bioimaging/Workshop, Nizhny Novgorod, Russia, 19- 24 July 2009	D. C. Dutu, D. C. Dumitraş, M. Paţachia, M. Dicu, Xiaoping Liang, H. Jiang , N. Iftimia
6	"Optospectral techniques for mining waste caracterizatio in Baia Mare region, Romania", (Oral presentation)	International Conference Micro- to Nano-Photoncs II ROMOPTO 2009, Sibiu, Romania, 31 August-3 September 2009	M. Zoran, R. Savastru, D. Savastru, M. Tăutan, S. Micloş, D. C. Dumitraş, T. Julea
7	"TEWALAS, 20-TW femtosecond laser facility", (Oral presentation)	International Conference on Ultrafast and Nonlinear Optics UFNO'2009, Burgas, Bulgaria, 14-18 September 2009	D. Ursescu, R. Banici, C. Blănaru, R. Dabu, D. Dumitraş, C. Fenic, L. Ionel, F. Jipa, L. Rusen, S. Simion, A. Stratan, M. Ulmeanu, M. Zamfirescu
8	"Photoacoustic spectroscopy: low vs. high laser power", (Invited lecture)	International Conference Advanced Laser Technologies ALT'09, Antalya, Turcia, 26 September-1 October 2009	D. C. Dumitraş, D. C. A. Duţu, A. M. Bratu, M. Paţachia, C. Achim, M. Petruş, C. Matei, Ş. Băniţă
9	"Noninvasive detection of breath ammonia levels in renal diseases using laser photoacoustic spectroscopy", (Poster)	International Conference Advanced Laser Technologies ALT'09, Antalya, Turcia, 26 September-1 October 2009	R. Cernat, D. C. A. Duţu, M. Paţachia, C. Achim, D.C. Dumitraş
10	"Histological studies of pathological ENT tissues irradiated by laser diode and CO <sub>2</sub> laser surgical system", (Poster)	International Conference Advanced Laser Technologies ALT'09, Antalya, Turcia, 26 September-1 October 2009	M. Petruş, D.C. Dumitraş, D.C. Duţu
11	"Evaluation of ammonia absorption coefficients by photoacoustic spectroscopy for detection of ammonia levels in human breath", (Poster)	International Conference Advanced Laser Technologies ALT'09, Antalya, Turcia, 26 September-1 October 2009	C. Achim, D. C. Dumitraş, D. C. A. Duţu, R. Cernat
12	"Software for minimize physiological manual tremor and surgical training Laser CO <sub>2</sub> in ENT", (Oral)	The 21-st SMIT International Conference, Sinaia, România, 7-9 October 2009	R. Ungureanu, D. C. Dumitraş, C. Sarafoleanu, D. C. Duţu, C. Manea, M. Petruş
13	"Laser ablation proceses in ENT surgery", (Poster)	10th International Conference on Laser Ablation COLA2009, Singapore, 22-27 November 2009	D. C. Dumitraş, D. C. Duţu, M. Petruş, C. Sarafoleanu, C. Manea
14	Interferometric vibration	RomOpto 2009, Sibiu, Romania, Sep.	F. Garoi, P. C. Logofatu, V.

	displacement measurement / poster	2009	Damian, D. Apostol and P. Schiopu
15	Fourier Transform Spectra of Quantum Dots / poster	RomOpto 2009, Sibiu, Romania, Sep. 2009	V. Damian, I. Ardeleanu, Anca Armaselu, D. Apostol
16	Interferometric patterning of the azopolymers surface / poster	RomOpto 2009, Sibiu, Romania, Sep. 2009	V. Damian, I. Apostol, N. Hurduc,
17	Classical holographic experiments in digital terms / oral	RomOpto 2009, Sibiu, Romania, Sep. 2009	Petre Catalin Logofatu, Dan Apostol, Adrian Sima
18	Reverse engineering for heritage conservation / poster	RomOpto 2009, Sibiu, Romania, Sep. 2009	D. Apostol, Mihaela Bojan, Iuliana Iordache, V. Damian , Ileana Apostol
19	Preliminary experiments in THz spectroscopy / poster	RomOpto 2009, Sibiu, Romania, Sep. 2009	G. Mogaldea, M. Mogaldea, A. Leca , V. O. Ghenescu, M. Piso, D. Apostol
20	THz spectral imaging for security applications	RomOpto 2009, Sibiu, Romania, Sep. 2009	M. Mogaldea, G. Mogaldea, A. Leca, V. O. Ghenescu, M. Piso, D. Apostol
21	UV light controlled surface modulation of polymeric films / poster	ICO Photonics 2009, Delphi, Grecia, Oct. 2009	I. Apostol, V. Damian, P. C. Logofatu, D. Apostol, I. Iordache
22	„Web Services Usage in Distributed File Systems”	7th IAEA TM on Control, Data Acquisition and Remote Participation for Fusion Research, 15-19 June 2009, Aix-en-Provence, acceptat spre publicare in FUSION ENGINEERING AND DESIGN	V. Pais
23	Numerical modeling of thermal lens induced in a diode-pumped Nd:YVO <sub>4</sub> grazing-incidence laser / poster	Intl. Conference “Micro- to Nano-Photonics II- ROMOPTO 2009,” Sibiu, Romania, August 31- September 3, 2009	Ștefan Amarande
24	Numerical modeling of a diode-pumped Nd:YVO <sub>4</sub> grazing-incidence laser amplifier / poster	1st EOS Topical Meeting on Lasers, Capri, Italy, 28 September-1 October, 2009	Ștefan Amarande
25	Spectral shaping of a broadband optical source with a double-pass prism sequence for FD-OCT imaging at 840 nm wavelength operation” (Poster)	II International Symposium Topical Problems of Biophotonics TPB-2009, Optical Bioimaging/Workshop, Nizhny Novgorod, Russia, 19- 24 July 2009	R. Cernat, G.Dobre, A. Bradu and A. Gh. Podoleanu
26	Broaband optical illumination in a TD-OCT system for live imaging in developmental biology at 1300 nm wavelength” (Poster)	Advanced Laser Technologies ALT’09, Antalya, Turcia, 26 September-1 October 2009	R.Cernat, G. Dobre, A. Bradu and A.Gh. Podoleanu
27	Poster, “Nanostructured metal oxide thin films for optical gas sensing”	New Challanges in Heat Treatment and Surface Engineering, 9-12 Iunie 2009, Dubrovnik, Cavtat, Croatia;	C. Ristoscu, F. Sima, I.N. Mihailescu, L. Cultrera, A. Perrone
28	Poster “Bioglass-PMMA nanocomposite coatings obtained by matrix assisted pulsed laser evaporation on titanium for orthopedic implants”	New Challanges in Heat Treatment and Surface Engineering, 9-12 Iunie 2009, Dubrovnik, Cavtat, Croatia;	F. Sima, C.Ristoscu, A. Popescu, L.E. Sima, S.M. Petrescu, Dj. Janackovic
29	Lectie invitata “Biomimetic nanostructured thin layers synthesized by advanced pulsed laser technologies for mineralized tissues, fast repairing and regeneration”	“International School and Conference on Photonics” Photonica09, Belgrad, Serbia, 24-28 august 2009	Ion N. Mihailescu
30	Poster “Quantum efficiency and UV performances of nanostructured Mg thin films on Cu substrates for photocathode applications”	“International School and Conference on Photonics” Photonica09, Belgrad, Serbia, 24-28 august 2009	C. Ristoscu, F. Sima, I. N. Mihailescu, L. Cultrera, A. Perrone
31	Poster “Effect of doping with carbon and nitrogen on photocatalytic activity of TiO <sub>2</sub> thin films synthesized by pulsed laser deposition”	“International School and Conference on Photonics” Photonica09, Belgrad, Serbia, 24-28 august 2009	G. Socol, N. Stefan, I. N. Mihailescu, V. Djokic, D. Janackovic, C. Sutan, V. Malinovski, A. Moldovan
32	Poster “Biopolymer-calcium	“International School and Conference on	F. Sima, E. Axente, N.



	phosphate composites synthesized by pulsed laser technologies for medical applications”	Photonics” Photonica09, Belgrad, Serbia, 24-28 august 2009	Serban, C. Ristoscu, I. N. Mihailescu, K. Anselme, E. Pauthe, O. Gallet
33	Lectie invitata “Nanostructured thin coatings synthesized by advanced pulsed laser technologies for biomedical applications”	”Micro- to Nano-Photonics II - ROMOPTO 2009”, Sibiu, Romania, 31 august – 3 septembrie 2009	Ion N. Mihailescu
34	Lectie invitata “Fs pulse shaping for morphology control in PLD”	”Micro- to Nano-Photonics II - ROMOPTO 2009”, Sibiu, Romania, 31 august – 3 septembrie 2009	C. Ristoscu, G. Socol, I. N. Mihailescu, C. Ghica, D. Gray, E. Papadopoulou, C. Fotakis
35	Lectie orală “ Photocatalytic activity of C, N doped TiO <sub>2</sub> and ZrO <sub>2</sub> thin films synthesized by pulsed laser deposition”	”Micro- to Nano-Photonics II - ROMOPTO 2009”, Sibiu, Romania, 31 august - 3 septembrie 2009	G. Socol, S. Nicolae, I.N. Mihailescu, Yu. Gnatiuk, N. Smirnova, C. Sutan, V. Malinovski, A. Stanculescu
36	Lectie invitata “Functionalized nanostructured thin films of biopolymers synthesized by advanced pulsed laser methods for drug delivery and fast diagnostic/medicine applications”	”Micro- to Nano-Photonics II - ROMOPTO 2009”, Sibiu, Romania, 31 august – 3 septembrie 2009	R. Cristescu, I.N. Mihailescu, I. Stamatin, D. B. Chrisey
37	Lectie orală “Protein immobilization by pulsed laser techniques to modify cell/biomaterial interactions”	”Micro- to Nano-Photonics II - ROMOPTO 2009”, Sibiu, Romania, 31 august – 3 septembrie 2009	F. Sima, E. Axente, C. Ristoscu, C.N. Mihailescu, I.N. Mihailescu, K. Anselme, L.E. Sima, S.M. Petrescu, E. Pauthe, O. Gallet
38	Lectie invitata “Biophotonic nanostructured coatings for implantology”	“Emerging trends and novel materials in photonics” – ICO, Delphi, Grecia, 7-9 octombrie 2009	Ion N. Mihailescu, Carmen Ristoscu, Felix Sima,
39	Lectie orală “Vitronectin nanostructures immobilized by laser techniques for osteoblast adhesion improvement”	“Emerging trends and novel materials in photonics” – ICO, Delphi, Grecia, 7-9 octombrie 2009	Felix Sima, Patricia Davidson, Emmanuel Pauthe, Olivier Gallet, Karine Anselme, Ion N. Mihailescu
40	Poster “Charge Density Wave K <sub>0.3</sub> MoO <sub>3</sub> thin films grown by pulsed laser deposition”	“Emerging trends and novel materials in photonics” – ICO, Delphi, Grecia, 7-9 octombrie 2009	D. Dominko, D. Starešinić, K. Biljakovic, A. Tomeljak, D. Mihailovic, J. Demsar, G. Socol, C. Ristoscu, I. N. Mihailescu, J. Marcus
41	Poster “Influence of laser parameters in PLD of hydroxyapatite thin films for use in biomedical applications”	E-MRS Spring Meeting, Strasbourg, Franta, 8-12 iunie 2009	S. Grigorescu, J. Faerber, J. Werckmann, I.N. Mihailescu
42	Poster “MAPLE immobilization of extracellular matrix proteins onto hydroxyapatite nanostructured layers: immunodetection and cell adhesion”	“Bioprinting and Biofabrication in Bordeaux” 3B-09, Bordeaux, Franta, 6-8 Iulie 2009	F. Sima, E. Axente, P. Davidson, E. Pauthe, O. Gallet, I. N. Mihailescu, K. Anselme
43	Poster “Coatings of vitronectin by adsorption or laser deposition onto dense or thin layer hydroxyapatite supports”	”Interface Biology or Implants”, Rostock, Germania, 13 - 16 mai 2009, Biomaterialen 10(S1), 116	F. Sima, F. Admane, J.Leroy-Dudal, K. Anselme, E. Pauthe, I. N. Mihailescu et O. Gallet
44	Poster „Alendronate Drugs Delivering from Hydroxyapatite Coatings Synthesized by Matrix Assisted Pulsed Laser Evaporation - Physico-chemical Characterization”	The First International Congress on Side Effects in Medicine (ICSEMED), Iasi, Romania, 19-22 Martie 2009	Johny Neamtu, Ani-Simona Fetea, F. Sima, Emanuel Axente, C. Ducu, Maria Mihalache, I.N. Mihailescu
45	Poster, Morphology of Polyethylene Nanolayers: Study by Evanescent Light Microscopy	2 <sup>nd</sup> Mediterranean conference on nano photonics (MediNano-2), Athens, Greece, 26-27 October 2009	Lapsker I., Mirchin N., Gorodetsky U., Popescu S. A., Peled A., Duta L., Dorcioman G., Popescu A., Mihailescu I. N.
46	Poster, Hydroxyapatite thin films synthesized by pulsed laser deposition and magnetron sputtering on PMMA substrates for medical	E-MRS Symposium M, Spring Meeting, Strasbourg 08-12 June 2009	G. Socol, F. Miroiu, N. Stefan, L. Duta, G. Dorcioman, I. N. Mihailescu, A. M. Macovei, S. M.

	applications		Petrescu, G. E. Stan, D. A. Marcov, A. Chiriac, I. Poeta
47	Poster, Polyethylene nanolayers morphology measured by evanescent light microscopy	IMEC-14 The 14th Israel Materials Engineering Conference, December 13-14, 2009, Tel-Aviv, Israel	Igor Lapsker, Nina Mirchin, Uri Gorodetsky, Simona Popescu, Aaron Peled, Liviu Duta, Gabriela Dorcioman, Andrei Popescu, Ion N. Mihailescu
48	Oral, Composite biocompatible hydroxyapatite–silk fibroin coatings for medical implants obtained by Matrix Assisted Pulsed Laser Evaporation	Symposium M: Bioinspired and Biointegrated Materials as New Frontiers Nanomaterials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	F.M. Miroiu , G. Socol, A. Visan, N. Stefan, D. Craciun, V. Craciun, G. Dorcioman, I.N. Mihailescu, L.E. Sima, S.M. Petrescu, A. Andronie, I. Stamatin, S. Moga, C. Ducu
49	Poster: Microstructural characterization of ZrO <sub>2</sub> doped HA nanolayers synthesized by PLD onto porous Al <sub>2</sub> O <sub>3</sub>	Symposium Q: Laser and Plasma Processing for Advanced Materials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	F. Sima, C. Ristoscu, N. Stefan, D. Caiteanu, I.N. Mihailescu, G. Prodan, V. Ciupina, E. Palcevskis, J. Krastins, I. Zalite
50	Oral: Fabrication and Process Simulation of Permalloy Nanoparticles by Pulsed Laser Ablation	Symposium Q: Laser and Plasma Processing for Advanced Materials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	Zijie Yang, Ruqiang Bao, A.N. Caruso, Yong Huang, R. Cristescu, I.N. Mihailescu, and Douglas B. Chrisey
51	Poster: MAPLE Deposition of AlN Nanoparticle Composite Thin Films	Symposium Q: Laser and Plasma Processing for Advanced Materials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	Zije Yan, Ruqiang Bao, Michael S. Shur, Rodica Cristescu, Ion N. Mihailescu, and Douglas B. Chrisey
52	Poster: Targeted Polyvinilalcohol Derivatives Thin Films for Sustained Drug Release Systems: Laser Deposition and Morphological, Chemical and In Vitro Characterization, and	Symposium Q: Laser and Plasma Processing for Advanced Materials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	R. Cristescu, C. Popescu, A. Popescu, S. Grigorescu, I.N. Mihailescu, M. Spiroiu, A. Andronie, I. Stamatin, T. Buruiana, D.B. Chrisey
53	Poster/oral: Functionalized Porphyrins Immobilization by Matrix Assisted Pulsed Laser Evaporation Technique for Warfare Agent Detection.	Symposium M: Bioinspired and Biointegrated Materials as New Frontiers Nanomaterials, EMRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France,	R. Cristescu, C. Popescu, A. Popescu, S. Grigorescu, I.N. Mihailescu, A.A. Ciucu, A. Andronie, I. Stamatin, E. Fagadar-Cosma, D.B. Chrisey
54	Cobalt modified Mg/Al-LDH and Mg(Al)O catalysts in the epoxidation of cyclohexene with molecular O <sub>2</sub> / Poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	R. Ionescu, R. Bîrjega, O. D. Pavel R. Zăvoianu, E. Angelescu, M. Florea, C. Luculescu
55	Carbon nanostructures growth by PACVD in a fluidized bed reactor on Fe-based catalysts / Poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	S. Vizireanu, D. Stoica, R. Birjega, L.C. Nistor, V. S. Teodorescu, C. Ghica, R. Ganea, A. Braileanu, G. Dinescu
56	Laser-Induced Forward Transfer: An Approach to Single-Step Polymer Microsensor Microfabrication / prezentare orala	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	V. Dinca, R. Fardel, F. Di Pietrantonio, D. Cannatà, E. Verona, A. Palla-Papavlu, M. Dinescu and T.Lippert
57	Polymer pixel enhancement by laser induced forward transfer for sensor application / prezentare orala	Conferinta Internationala COLA, Singapore, 21-27 noiembrie , 2009	V. Dinca, A. Palla-Papavlu, A. Matei, M. Dinescu, R. Fardel, T. Tippert, F. Di Pietrantonio, D. Cannatà, M. Benetti, E. Verona
58	A comparative study of DRL-LIFT and LIFT on integrated polyisobutylene polymer matrices / poster	Conferinta Internationala COLA, Singapore, 21-27 noiembrie , 2009	V. Dinca, A. Palla-Papavlu, A. Matei, M. Dinescu, J. Shaw-Stewart, T. Tippert, F. Di Pietrantonio, D. Cannatà,

			M. Benetti, E. Verona
59	Nanoporous cluster-assembled WO <sub>x</sub> films prepared by radio-frequency assisted laser ablation / prezentare orală	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	M. Dinescu, M. Filipescu, P.M. Ossi, N. Santo
60	Nanostructure evolution in cluster-assembled WO <sub>x</sub> films synthesized by radio-frequency assisted laser ablation / poster	Conferinta Internationala COLA, Singapore, 21-27 noiembrie, 2009	N. Santo, P.M. Ossi, M. Filipescu, M. Dinescu, N.D. Scarisoreanu
61	Structural and optical properties of Sr <sub>x</sub> Ba <sub>1-x</sub> Nb <sub>2</sub> O <sub>6</sub> thin films growth by PLD and RF-PLD / poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	N. D. Scarisoreanu, R. Birjega, M. Dinescu, V. Ion, A. Moldovan, R. Pascu, A.C. Galca, L. Nistor
62	Investigations on the structural and morphological properties of zirconia thin films for applications in the field of environment protection / poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	M. Filipescu, A. Palla-Papavlu, G. Velisa, V. Ion, A. Chis, D. Pantelica, R. Birjega, P. Ionescu, N. Scintee, R. Pascu, M. Dinescu
63	Polymer-like thin films obtained by RF plasma polymerization of pentacyclic monomers / poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	V. Satulu, B. Mitu, V. Ion, C.A. Galca, G. Aldica and G. Dinescu
64	Amyloid Fibrils Thin Films Obtained By Maple Process / Prezentare orală	IV International SPIE Students Chapters Meeting, Toruń, Polonia, 14 - 16 Mai 2009,	A. Palla-Papavlu
65	Amyloid Fibrils Thin Films/Patterns Obtained By Maple/Maple-Dw Process / Poster	International Spring School, Biophysics & Bioelectrochemistry for Medicine, Cislădoara, Romania, 6-10 Mai 2009	A. Palla-Papavlu, V. Dinca, A. Matei, A. Moldovan, E. Kasotakis, A. Mitraki, M. Dinescu
66	Polyisobutylene thin films obtained by matrix assisted pulsed laser evaporation for sensor applications / Prezentare orală	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	A. Palla-Papavlu, C. Constantinescu, V. Dinca, A. Matei, A. Moldovan, B. Mitu, M. Dinescu
67	Organic and inorganic network development in ormosils: effects on thermal properties / Poster	Romanian International Conference on Chemistry and Chemical Engineering, Sinaia, Romania, 9-12 Septembrie, 2009	Adriana Lungu, Horia Iovu, Emil C. Buruiana, Tinca Buruiana, Alexandra Palla-Papavlu, Andreea Matei, Maria Dinescu
68	Two Photon Polymerization of ormosils / Prezentare orală	Conferinta ICO Topical meeting on "Emerging Trends and Novel Material in Photonics", Grecia, 6-9.10.2009	M. Dinescu, A. Matei, M. Zamfirescu, G. Epurescu, C. Luculescu, E.C. Buruiana, T. Buruiana, C. Lazar, L. Sima, S.M. Petrescu
69	Layered double hydroxides and derived mixed oxides thin films grown by laser techniques for bioapplication / Poster	Conferinta Internationala COLA, Singapore, 21-27 noiembrie, 2009	A. Matei, R. Birjega, A. Nedelcea, V. Dinca, A. Vlad, M. Filipescu, D. Colceag, M. Dinescu, R. Zavoianu, O.D. Pavel, D. Pelinescu, T. Vassu
70	Pulsed Laser Deposited Al:ZnO Films on PET Substrates / poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	M. Girtan, A. Vlad, R. Mallet, M. A. Bodea, J. D. Pedarnig, D. Mardare, A. Stanculescu
71	Optical and Electrical properties of doped ZnO thin films / poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	A. Galca, Mihail Secu, A. Vlad, J. D. Pedarnig
72	Deposition, characterization and biological application of ZnO double-layers / prezentare orală	DPG, Dresden, Germania, 22-28 Martie, 2009	A. Vlad, S. Yakunin, E. Kolmhofer, V. Kolotovska, L. Muresan, A. Sonnleitner, D. Bäuerle, J.D. Pedarnig
73	ZnO double-layers for biological applications / poster	XI. Linz Winter Workshop Linz, Austria, 6-9 Februarie 2009,	A. Vlad, S. Yakunin, E. Kolmhofer, V. Kolotovska, L. Muresan, A. Sonnleitner, D. Bäuerle, J.D. Pedarnig
74	Lead-free ferroelectric thin films obtained by pulsed laser deposition / Poster	Conferinta Internationala COLA, Singapore, 21-27 noiembrie, 2009	N.D. Scarisoreanu, Chis A, R. Birjega, C. Luculescu, F. Craciun, C. Galassi, M. Dinescu

75	Impedance spectroscopy study of relaxor ferroelectric PLZT thin films obtained by PLD and RF-PLD / Poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	F. Craciun, M. Dinescu, N. Scarisoreanu, V. Ion, C. Galassi
76	Studies on zirconia thin films deposited by laser ablation for biological applications / Prezentare orală	IV International SPIE Students Chapters Meeting, Toruń, Polonia, 14 - 16 Mai 2009	Nedelcea Anca
77	Polyacrylic acid: thermal stability and thin films deposition by matrix assisted pulsed laser evaporation (MAPLE) / Poster	"Frontiers in Polymer Science" International Symposium, Mainz, Germania, 7-9 iunie, 2009	Catalin Constantinescu, Petre Rotaru, Emilian Morintale, Valentin Ion, Maria Dinescu
78	Thermal stability and thin films deposition by matrix assisted pulsed laser evaporation (MAPLE) of pure and blended polyaniline / Poster	"Frontiers in Polymer Science" International Symposium, Mainz, Germania, 7-9 iunie 2009	Catalin Constantinescu, Petre Rotaru, Emilian Morintale, Nicu Scarisoreanu, Maria Dinescu
79	Fabrication of nitrogen doped hard-magnetic Nd-Fe-B thin films by RF-assisted pulsed laser deposition / Poster	E-MRS Spring Meeting, Strasbourg, Franta, iunie 8-12, 2009	Catalin Constantinescu, Nicu Scarisoreanu, Horia Gavrilă, Maria Dinescu
80	Thermal analysis and thin films deposition by MAPLE of Cu(II) 2,2'-Dihydroxy azobenzene / Poster	"9th Mediterranean Conference on Calorimetry and Thermal Analysis", Marseille, Franta, 15-18 iunie 2009	Catalin Constantinescu, Andrei Rotaru, Petre Rotaru, Ana Emandi, Emilian Morintale, Valentin Ion, Antoniu Moldovan, Maria Dinescu
81	Thermal analysis of some azomonoethers. Non-Isothermal decomposition kinetic study of 1-(3-chloro-4-(4-chlorobenzyloxy)phenyl)-2-(4-chlorophenyl)diazene in air flow / Poster	"9th Mediterranean Conference on Calorimetry and Thermal Analysis", Marseille, Franta, 15-18 iunie, 2009	Andrei Rotaru, Catalin Constantinescu, Anca Moanta, Petre Rotaru, Maria Dinescu, Eugen Segal
82	Thin films of rare earth magnetic alloys processed by laser and plasma assisted techniques / Lectie invitata	IV International SPIE Students Chapters Meeting, Toruń, Polonia, 14 - 16 Mai 2009	Catalin Constantinescu
83	The RF-PLD technique: a versatile procedure in developing thin films / Poster	"Summer College on Plasma Physics", Trieste, Italia, 10-28 august 2009	Catalin Constantinescu, Valentin Ion, Aurelian. C. Galca, Maria Dinescu
84	Thermal behavior of solid combustibles in air and inert atmosphere; kinetic study by means of TKS-SP software / poster	18 <sup>th</sup> annual scientific communication symposium of the Thermal Analysis and Calorimetry Commission, Romanian Academy, Bucuresti, Romania, Februarie 2009	A. Rotaru, M. Goşa, P. Rotaru, C. Neaga
85	Morphological properties of thin films deposited by pulsed laser deposition / prezentare orală	IV International SPIE Students Chapters Meeting, Toruń, Polonia, 14 - 16 Mai 2009	Andreea Chis
86	Lasers applications in biomedicines: basic research(invited)	First Conference of the International Academic Board of New European Surgery Academy, January 2009, Berlin	M.L. Pascu
87	The neural basis of consciousness (oral)	Annual Conference of the COST Network B0605- Consciousness, March 2009, Berlin	L. Danaila, M.L. Pascu
88	Laser beams interactions with microdroplets (invited)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009, Bucharest	M.L. Pascu, I.R. Andrei, C. Ticos, V. Nastasa, T. Beica
89	Spectral studies of medicines to be delivered in microdroplets form (poster)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009, Bucharest	M. Dicu, A. Staicu, A. Smarandache, I. R. Andrei, M. Ferrari, L. Liggieri, L. Frunza, M. L. Pascu
90	Wetting of solvents for drug delivery on superhydrophobic surfaces (poster)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009,	M. Ferrari, L. Liggieri, F. Ravera, M. L. Pascu, M. Dicu

		Bucharest	
91	Preliminary study of vancomycin on a normal epithelial retinal cell line (poster)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009, Bucharest	S. Kevorkian, A. Manea, A. Dinischiotu, M. Dicu, M. L. Pascu, M. Costache, B. Carstocea
92	Surface tension of drug solutions (poster)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009, Bucharest	T. Beica, I. Zgura, L. Frunza, I. R. Andrei, M. Dicu, M. L. Pascu
93	Characterization of microdroplets which contain solutions of medicines (poster)	Joint Conference of the 7 <sup>th</sup> MC & WG Meetings. COST ACTION P21 „The physics of droplets”, May 4-6 2009, Bucharest	I. R. Andrei, M. Ferrari, L. Liggieri, M. Dicu, V. Nastasa, M. L. Pascu
94	Studies of the modifications induced in spectral properties of medicines exposed to laser radiation (invited)	First Annual Conference of the COST Network B0701- ATHENS, May 2009, Cracow, Poland	M. Dicu, J.M. Pages, A. Mahamoud, A. Staicu, M. L. Pascu
95	Chaotic behaviour of semiconductor lasers emission when optically coupled with an external cavity (poster)	Micro- to Nano-Photonics II- ROMOPTO 2009, 31 August-3 Septembrie 2009, Sibiu-Romania	R. Andrei, C. M. Ticos, M. Bulinski, M. L. Pascu
96	Microdroplets behaviour when exposed to laser radiation field (invited)	Invited presentation Micro- to Nano-Photonics II- ROMOPTO 2009, 31 August-3 Septembrie 2009, Sibiu-Romania	M.L. Pascu, Adriana Smarandache, I.R. Andrei, V. Nastasa, C. Ticos
97	Investigation of the fluorescent compounds solutions in microdroplets form at interaction with laser radiation (poster)	International Workshop Bubble and Drop Interfaces, Sept 23-25, 2009, Thessaloniki, Greece	I.R. Andrei, V. Nastasa, C.M. Ticos, M.L. Pascu
98	Studies about the generation and characterization of microdroplets with a controlled content (poster)	International Workshop Bubble and Drop Interfaces, Sept 23-25, 2009, Thessaloniki, Greece	V. Nastasa, V. Pradines, M. L. Pascu, R. Miller
99	Water microdroplets behaviour at interaction with laser beams (poster)	International Workshop Bubble and Drop Interfaces, Sept 23-25, 2009, Thessaloniki, Greece	I.R. Andrei, A. Smarandache, M.L. Pascu
100	Laser-induced autofluorescence as a diagnostic tool for use in neurosurgery (invited)	Laser Florence 2009, 6-7 nov. 2009, Florenta, Italia, Lasers in Medical Science, vol.24, Supplement1, Nov.2009, S10	M. O. Romanitan, A. Pascu L. Danaila M.L. Pascu
101	The generation of microdroplets as vectors to transport medicines to tissues (invited))	Laser Florence 2009, 6-7 nov. 2009, Florenta, Italia Lasers in Medical Science, vol.24, Supplement1, Nov.2009, S14,	M.L. Pascu, I.R. Andrei, V. Pradines, V. Nastasa, R. Miller
102	Modifications of the medicines molecular structures by bulk exposure to optical radiation (poster)	Laser Florence 2009, 6-7 nov. 2009, Florenta, Italia, Lasers in Medical Science, vol.24, Supplement1, Nov.2009, S16	A. Smarandache, R. Pascu, A. Militaru, M.L. Pascu
103	Stability of the molecular structures of medicines delivered in microdroplets solutions (poster)	Laser Florence 2009, 6-7 nov. 2009, Florenta, Italia, Lasers in Medical Science, vol.24, Supplement1, Nov.2009, S16	I.R. Andrei, A. Smarandache, J.M. Pages, A. Mahamoud, M.L. Pascu
104	Stability studies performed on quinazoline derivative BG1188 (oral)	Second Annual Conference of COST Network BM0701 - ATENS "Antibiotic transport and efflux: new strategies to combat bacterial resistance", December, 2009, Dublin, Ireland	A. Smarandache, A. Militaru, A. Mahamoud, S. Alibert, M.L. Pascu, J.M. Pages
105	Origin of the fast magnetization relaxation at low temperatures in HTS with strong pinning (POSTER)	International Symposium on Superconductivity ISS 2009, 2-4 nov 2009, Tsukuba, Japonia	L. Miu, I. Ivan, P. Badica, G. Jakob, D. Miu, P. Mele, K. Matsumoto, M. Mukaida, Y. Yoshida, T. Horide, A. Ichinose, S. Horii
106	Magnetization relaxation in YBCO films with improved supercurrent transport properties"	European Conference on Applied Surface Science EUCAS 2009, 13-17 sept 2009, Dresda, Acceptat spre	L. Miu, I. Ivan, P. Badica, G. Jakob, D. Miu, P. Mele,

	(PREZENTARE ORALA)	publicare J. of Phys. Conference Series	K. Matsumoto, M. Mukaida, Y. Yoshida, T. Horide, A. Ichinose, S. Horii
107	Friction evaluation of lubricated laser –(PREZENTARE ORALA)	World Tribology Congress 2009, 6-11 Sept. 2009, Kyoto International Conference, Pag. 50	A. Predescu, M. Pascovici, T. Cicone, C. Popescu, C. Grigoriu, D. Dragulinescu
108	Study on Nucleation Seeds for Pulsed Laser Ablation Oxide Materials/(POSTER)	ROMOPTO 2009, Sibiu, Romania, 31 <sup>th</sup> August-3 <sup>rd</sup> September (2009)	A.Marcu, T.Yanagida A.Mihailescu, C.Grigoriu, T.Kawai
109	Plasma Expansion in a Multi-Target Thermoionic Vacuum Arc Deposition/(POSTER)	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6 <sup>th</sup> -8 <sup>th</sup> , 2009, Constanta, Romania	A.Marcu, C.Grigoriu, C.P.Lungu
110	Particles Flux Limitations in Nanostructures Growing Using PLD/VLS Technique/(POSTER)	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6 <sup>th</sup> -8 <sup>th</sup> , 2009, Constanta, Romania	A.Marcu, T.Yanagida, C.Grigoriu T.Kawai
111	Iron Oxide Shell Layer Morphology in PLD/(PREZENTARE ORALA)	European Material Research Society, Spring Meeting, Strasbourg, France, 8 <sup>th</sup> -12 <sup>th</sup> June (2009)	A.Marcu, T.Yanagida T.Kawa
112	Detection of chemical warfare agents using surface acoustic wave sensors with diferent polymer coatings - (PREZENTARE ORALA)	International Semiconductor Conferences (CAS) 12-14 octombrie 2009 Sinaia Romania	C. Viespe, C. Grigoriu, C. Toader, N. Grigoriu
113	Dye sensitized solar cells based on TiO <sub>2</sub> nanostructures (PREZENTARE ORALA)	Romanian Conference on Advanced Materials, ROCAM 2009, 25-28 august 2009, Brasov, Romania, pag. 66, ISSN 1842-3574, (2009)	C. Sima, C. Grigoriu, C. Tazlaoanu, S. Antohe, H. Alexandru
114	Effects of SiO <sub>2</sub> nanoparticles in MRC5 lung fibroblasts, (PREZENTARE ORALA)	“10 <sup>th</sup> International Balkan Workshop on Applied Physics”, Constanta, Romania, 6-8 iulie 2009, pag. 141, ISBN 978-973- 614-507-0, 53(063), (2009)	C. Munteanu, O. Zarnescu, C. Sima, M.Costache, C. Grigoriu, A.Dinischiotu
115	Oxidative stress-induced by Fe <sub>2</sub> O <sub>3</sub> nanoparticles in MRC5 lung fibroblasts (PREZENTARE ORALA + POSTER)	Workshop on “In-Vitro Exposure Studies for Toxicity Testing of Engineered Nanoparticles, a dialogue between Aerosol Science and Biology” 5– 6 September 2009; Karlsruhe, Germania, (XC170), InVi_A03, (2009)	M. Radu, M.C. Munteanu, C.Sima, M. Costache, C. Grigoriu, A. Dinischiotu
116	Action of Fe <sub>2</sub> O <sub>3</sub> nanoparticles on MRC5 lung fibroblasts (POSTER)	“European Aerosol Conference 2009”, 6- 11 septembrie 2009; Karlsruhe; Germania, pag.64, T104A05 , (2009)	M.C. Munteanu, O. Zărnescu, C. Sima, M. Radu, M. Costache, C. Grigoriu, A. Dinischiotu
117	Size dependent nonlinear properties of thiol-capped CdTe QD / Prezentare orala	Conference on Lasers & Electro-Optics Europe & 11th European Quantum Electronics Conference (CLEO/Europe- EQEC Conference), Munchen, Germania, 14-19 iunie 2009	I. Dancus, V. I. Vlad, A. Petris, N. Gaponik, V. Lesnyak
118	Describing third-order nonlinear optical properties of nanocrystalline porous silicon using Bruggeman model / Poster	Conference on Lasers & Electro-Optics Europe & 11th European Quantum Electronics Conference (CLEO/Europe- EQEC Conference), Munchen, Germania, 14-19 iunie 2009	T. Bazaru, V. I. Vlad, A. Petris, P. S. Gheorghe, E. Fazio,
119	Reflection Z-scan for characterization of materials with third- and fifth-order optical nonlinearities / Poster	3rd EOS Topical Meeting on Optical Microsystems (OMS09), Capri, Italy, 27- 30.09.2009	A. Petris, V. I. Vlad, E. Fazio
120	Optical linear and third-order nonlinear properties of nano-porous Si described by Bruggeman model / Poster	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	T. Bazaru, V. I. Vlad, A. Petris, M. Miu
121	Arrays of soliton waveguides in lithium niobate for parallel coupling / Prezentare orala	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	S. T. Popescu, A. Petris, V. I. Vlad, E. Fazio
122	Optical limiting and phase	9th International Conference on Optics	I. Dancus, V. I. Vlad, A.

	modulation in colloidal CdTe nanocrystals / Prezentare orală	"Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	Petris, N. Gaponik, V. Lesnyak
123	Self-trapped beams in lithium niobate crystals doped with erbium / Prezentare orală	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	M. Alonzo, F. Pettazzi, M. Bazzan, C. Sada, A. Petris, V. I. Vlad, A. Toncelli, F. Deveaux, M. Chauvet, D. Wolfsberger, E. Fazio
124	Holographic interferometry in photorefractive crystals for study of pollutant adsorption / Poster	Winter College on Optics in Environmental Science, Trieste, Italy, 5.02.2009	A. Petris, V. I. Vlad, M. Levai, A. Stoica
125	Properties of the laser annealed FeSiB thin films / Poster	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	F. Tolea, M. Stoica, M. Sofronie, M. Udrea, M. Valeanu
126	QUANTUM SECURITY IN GRID COMPUTING APPLICATIONS / POSTER	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	M. Dima, M. Dulea, M. Petre, B. Mitrica, M. Stoica, M. Udrea
127	Excimer laser micro-machining optimization by using beam homogenizers based optical system / Poster	9th International Conference on Optics "Micro- to Nano-Photonics - ROMOPTO 2009", Sibiu, Romania, 31.08 – 03.09.2009	V. Sava, C. Ilie, M. Popa, M. Stoica, M. Udrea
128	Input-output characteristics for VariSpot <sup>®</sup> with 200 fs pulsed laser, paper 7194-6 - prezentare orală	Photonics West, San Jose, CA, USA, 24 - 29 January (2009)	G. Nemes, M. Ulmeanu, M. Zamfirescu
129	Preparation and characterization of water in oil emulsion via drop break-off - prezentare orală	Introduction to Optofluidics Trieste - Italy, 01 - 05 June (2009)	M. Ulmeanu
130	Nanostructuring of surfaces using a picosecond laser pulse with template of colloidal particle array - prezentare poster	European research Materials Conference, June 8-12, Strasbourg, France (2009)	M. Ulmeanu, M. Zamfirescu, L. Rusen, C. Luculescu, A. Moldovan, A. Stratan, R. Dabu
131	"Layout For Millimeter Waves CRLH Devices Obtained by Femtosecond Laser System Ablation" - prezentare poster	E-MRS 2009 "Symposium Q - Laser and plasma processing for advanced materials", Strasbourg, France, June 8-12, 2009.	Marian Zamfirescu, Gheorghe Sajin, Florea Craciunoiu, Stefan Simion, Razvan Dabu
132	"High-aspect-ratio photonic structures produced by two-photon photo-polymerization" – prezentare poster	LAMP2009 - the 5th International Congress on Laser Advanced Materials Processing, Kobe, Japan, June 29 - July 2, 2009. (Online Proceeding)	M. Zamfirescu, F. Jipa, M. Ulmeanu, C. Luculescu, I. Ionita, R. Dabu
133	"Picosecond laser assisted surface nanostructuring with optical near-field enhanced effects" – prezentare orală	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	M. Ulmeanu, M. Zamfirescu, L. Rusen, C. Luculescu, A. Moldovan, A. Stratan, R. Dabu,
134	"Submicrometer geometries produced by Two Photon Polymerization Technique" – prezentare orală	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	Florin Jipa, Marian Zamfirescu, Iulian Ionita, Catalin Luculescu, Razvan Dabu,
135	"TEWALAS, 20-TW femtosecond laser facility" – prezentare orală	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	R. Dabu, R. Banici, C. Blănuș, C. Fenic, L. Ionel, F. Jipa, L. Rusen, S. Simeon, A. Stratan, M. Ulmeanu, D. Ursescu, M. Zamfirescu
136	"Two Photon Polymerization of Ormosils" – prezentare orală	ICO Topical meeting on "Emerging Trends and Novel Material in Photonics", Delphi, Greece, Oct. 7-9, 2009.	Maria Dinescu, A. Matei, M. Zamfirescu, G. Epurescu, C. Luculescu, E.C. Buruiana, T. Buruiana, C. Lazar, L. Sima, S.M. Petrescu
137	"Layout For Millimeter Waves CRLH Devices Obtained by Femtosecond Laser System Ablation" – prezentare poster	E-MRS 2009 "Symposium Q - Laser and plasma processing for advanced materials", Strasbourg, France, June 8-12, 2009.	Marian Zamfirescu, Gheorghe Sajin, Florea Craciunoiu, Stefan Simion, Razvan Dabu
138	High-aspect-ratio photonic structures produced by two-photon	LAMP2009 - the 5th International Congress on Laser Advanced Materials	M. Zamfirescu, F. Jipa, M. Ulmeanu, C. Luculescu,

	photo-polymerization" – prezentare poster	Processing, Kobe, Japan, June 29 - July 2, 2009. (Online Proceeding)	I.Ionita, R.Dabu
139	Ultra-short pulses coherent beam combining - prezentare orală	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009 ", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	L. Ionel, D. Ursescu
140	Multiple pulse generation for collinear pump-probe experiments - prezentare orală	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009 ", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	D. Ursescu, L. Ionel, R. Banici, R. Dabu
141	Gain and ionization dynamics in transient, collisionally excited x-ray laser – prezentare poster	Intl. Conference "Micro- to Nano-Photonics II – ROMOPTO 2009 ", Sibiu, Romania, Aug. 31 - Sept. 3, 2009.	D. Ursescu, L. Ionel
142	Spatial and temporal aspects in ultra-short pulses coherent beam combining/ prezentare orală	UFNO'09, September 14 – 18, Burgas, Bulgaria (2009)	L. Ionel, D. Ursescu
143	Gain Dynamics in Transient, Collisionally Excited X-Ray Lasers – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu, L. Ionel
144	Piston Error in Coherent Beam Combination Ultra-short Pulses – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu, L. Ionel
145	Spatial and Temporal Description of Ultra-short Pulses in Tightly Focused Beams - prezentare orală	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	L. Ionel, D. Ursescu
146	Non-Collinear Spectral Coherent Combination of Ultra-short Pulses - prezentare orală	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu, L. Ionel
147	TEWALAS, 20-TW femtosecond laser facility - prezentare orală	UFNO'09, September 14 – 18, Burgas, Bulgaria (2009)	R. Dabu, R. Banici, C. Blanaru, C. Fenic, L. Ionel, F. Jipa, L. Rusen, S. Simeon, A. Stratan, M. Ulmeanu, D. Ursescu, M. Zamfirescu
148	Multiple Pulse Generation for Collinear Pump-Probe Experiments – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu, L. Ionel, R. Banici, R. Dabu
149	Characterization of tilted ultrashort pulses using a second harmonic inverted field autocorrelator – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	R. Banici, R. Dabu, D. Ursescu
150	High Resolution, Real-time Interferometer for Coherent Beam Combination – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	S. Simion, C. Blanaru, D. Ursescu
151	Collinear Spectral Coherent Beam Combination of Ultrashort Pulses – prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu
152	Isotopes and Bandwidth of Plasma X-Ray Lasers - prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	D. Ursescu
153	TEWALAS, 20-TW femtosecond laser facility - prezentare poster	International Conference LEI 2009 - October 16 - 21, Brasov, Romania 2009	R. Dabu, R. Banici, C. Blanaru, C. Fenic, L. Ionel, F. Jipa, L. Rusen, S. Simeon, A. Stratan, M. Ulmeanu, D. Ursescu, M. Zamfirescu
154	Optimisation of gain and bandwidth in X-ray lasers - prezentare poster	COST Action MP0601, Short Wavelength Laboratory Sources Kongresové centrum SAV, Zámocká č. 18,919 04 Smolenice, Slovakia Working Group Meeting: 22-24 November 2009	D. Ursescu
155	1GW+1GW+1GW=... Coherent beam combination studies at INFLPR within HAPPIE JRA TEWALAS, 20-TW femtosecond	Laserlab2 - HAPPIE JRA kick-off meeting the 29th of June 2009, Abingdon, U.K.	D. Ursescu



	laser facility - prezentare orală		
156	Laser produced plasmas and x-ray lasers perspectives at TEWALAS 15 TW laser facility - prezentare orală	COST Action MP0601, Short Wavelength Laboratory Sources COST MP0601 WG & MC Meetings 14-15 May 2009, Salamanca (SPAIN)	D. Ursescu
157	X-ray laser development for experiments at FAIR/SPARC - prezentare orală	5th SPARC Collaboration Symposium September 1-4, 2009, Lisbon, Portugal	D. Ursescu
158	Laser photochemistry of iron-pentacarbonyl-based mixtures for the production of novel iron-polymer nanocomposites	ZING Organometallic Conference Antigua, Antigua and Barbuda March 06 -12, 2009	R. Alexandrescu, I. Morjan, M. Scarisoreanu, L. Gavrilă-Florescu, I. Soare, I. Voicu, V. Ciupina, A. Tomescu
159	Preparation of Fe/FeO <sub>x</sub> -doped SnO <sub>2</sub> nanoparticles by the laser pyrolysis of (CH <sub>3</sub> ) <sub>4</sub> Sn and Fe (CO) <sub>5</sub> gas mixtures”	ZING Organometallic Conference Antigua, Antigua and Barbuda March 06 -12, 2009	I. Morjan, R. Alexandrescu, F. Dumitrache, R. Birjega, M. Scarisoreanu, C. Fleaca, E. Popovici, I. Sandu, I. Soare, G. Prodan
160	Recent Progress on the Preparation of Magnetic Iron Oxide Nanoparticles for Bio-Imaging Applications	FLUOROMAG Symposium: Nanodots and Diagnostics, Univ. Santiago de Compostela SPAIN 27-29 March 2009	S. Veintemillas-Verdaguer, M. P. Morales, R. Costo, I. Morjan, R. Alexandrescu, C. Fleaca, M. A. Garcia, V. Bouzas, G. Mattei, V. Bello, D. Wang, M. Chanana, P. Gasco, N. Vivenza, G. Riccio, G. Miserocchi, I. Rivolta, G. Sancini, J. M. Idee, W. Gonzalez, M. Port, C. Robic, E. Borsella
161	Electrical resistivity of polymer-nanocarbon composite and sandwich free standing films synthesized by through an “inverse stamping” method	5 <sup>th</sup> International Conference on Nanostructured Polymers and Composites, Paris, France, April 15-17 2009	I. Sandu, I. Morjan, I. Voicu, R. Alexandrescu, F. Dumitrache, L. Gavrilă-Florescu, C.T. Fleaca, I. Soare, C. Luculescu, E. Popovici, M. Ploscaru, E. Dutu
162	Development of Fe-doped SnO <sub>2</sub> nanocomposites prepared by single-step laser pyrolysis	E-MRS Spring Meeting, Strasbourg, France, June 8 – 12, 2009	R. Alexandrescu, I. Morjan, F. Dumitrache, R. Birjega, C. Fleaca, C. R. Luculescu, E. Popovici, I. Soare, I. Sandu, G. Prodan
163	Carbon black and layered silicate nanofillers for polymer-based composites reinforced by carbon fibers	E-MRS, Strasbourg, Franta, Symposium P 2009	L. Gavrilă Florescu, I. Dinca, L. Dumitrache, A. Stefan, C. Nistor, A. Stan, I. Sandu, G. Prodan, Z. Vuluga, D. Donescu, I. Voicu
164	Carbon nanostructures from Fe-C nanocomposites by activated CVD methods	E-MRS Spring Meeting, Strasbourg, France, June 8 – 12, 2009	C.T. Fleaca, I. Morjan, R. Alexandrescu, F. Dumitrache, I. Soare, L. Gavrilă-Florescu, F. Le Normand, J. Faerber
165	Advances in iron-oxide based nanocomposite synthesized by laser pyrolysis	E-MRS Spring Meeting, Strasbourg, France, June 8 – 12, 2009	F. Dumitrache, C. Fleaca, I. Morjan, R. Alexandrescu, O. Cretu, R. Barjega
166	Laser-synthesized carbon black for polymer-based composites reinforced by carbon fibers	E-MRS Spring Meeting, Strasbourg, France, June 8 – 12, 2009	L. Florescu, I. Dinca, E. Popovici, L. Dumitrache, C. Nistor, A. Stan, I. Sandu, Z. Vuluga, I. Voicu
167	Nanocarbon grown by laser-induced gas phase pyrolysis: from turbostratic structure to graphene ribbon assemblies	International Carbon Conference, Biarritz, Franta June 13 – 20, 2009	Lavinia Gavrilă-Florescu, Ion Morjan, Dorin Rosu, Anghel Ioncea, Iuliana Pasuk, Raluca Ianchis, Iuliana Soare, Ion Sandu, Ernest Popovici, Ion Voicu
168	Preparation of Iron/Polymer-based nanocomposite materials by the laser pyrolysis of Fe(CO) <sub>5</sub> /MMA	23 <sup>rd</sup> Conference of European Colloids and Interface Society ECIS 2009, September 6-11, 2009 Antalya, Turkey	R. Alexandrescu, I. Morjan, R. Birjega, C. Fleaca, L. Gavrilă, I. Soare, F.

	mixtures: structural and sensing properties		Dumitrache, G. Prodan, A. Tomescu
169	Combined thin-films of CuInGaSe/S and ZnO for solar cells	Conferinta internationala de nanomateriale si aplicatii tehnologice in medicina/biologie si energie / NanoSMat 20-24 Oct, Roma 2009	Victor Rares Medianu, Petronela Garoi / POSTER
170	Structural and optical characterization of magnetron sputtering deposited thin films to be used as photovoltaic cells	EMRS, June 8-12, 2009, Strasbourg, France	P.Prepelita, A. Moldovan, R.Medianu, F.Garoi/Poster
171	On the structural and electrical characteristics of zinc oxide thin films	EMRS, June 8-12, 2009, Strasbourg, France	R. Medianu, P.Prepelita, N.Stefan, F. Garoi/ Poster
172	Effects of layer by layer deposition on the structural and optical characteristics of thin films	ROMOPTO, August 31- September 3, 2009, Sibiu, Romania	Petronela Prepelita, R. Medianu, A. Moldovan, N. Stefan, S. Georgescu/Poster
173	High-Temperature Operation of a Diode-Pumped Nd:YAG Laser Passively Q-Switched by Cr <sup>4+</sup> :YAG Saturable Absorber / poster	CLEO/IQEC 2009 Conference, Baltimore, Maryland, USA, May 31-June 5, 2009, presentation JThE6	T. Dascalu, N. Pavel, and N. Vasile
174	Efficient Laser Emission of Nd-vanadates on the 1.34- $\mu\text{m}$ <sup>4</sup> F <sub>3/2</sub> to <sup>4</sup> I <sub>13/2</sub> Transition under Pumping with Diode Lasers Directly into the Emitting Level / poster	CLEO/IQEC 2009 Conference, Baltimore, Maryland, USA, May 31-June 5, 2009, presentation JThE5	N. Pavel, T. Dascalu, N. Vasile, and V. Lupei
175	Spectroscopic properties of Chromium doped Sc <sub>2</sub> O <sub>3</sub> ceramics / poster	CLEO-Europe 2009 Conf., June 14-19, 2009, Munich, Germany, presentation CA.P.17	V. Lupei, A. Lupei, A. Ikesue, S. Florea
176	Spectral characteristics of Yb <sup>3+</sup> in calcium lithium niobium gallium garnets / poster	CLEO-Europe 2009 Conference, June 14-19, 2009, Munich, Germany, presentation CA.P.18	V. Lupei, A. Lupei, L. Gheorghe, C. Gheorghe, A. Achim
177	Operation at high temperature of a diode-pumped passively Q-switched Nd:YAG/Cr <sup>4+</sup> :YAG laser / poster	CLEO-Europe 2009 Conference, June 14-19, 2009, Munich, Germany, presentation CA.P.33	T. Dascalu, N. Pavel, and N. Vasile
178	Cr <sup>4+</sup> :YAG Passive Q-switching of Directly Pumped Nd Lasers / poster	CLEO-Europe 2009 Conference, June 14-19, 2009, Munich, Germany, presentation CA.P.38	N. Pavel, T. Dascalu, V. Lupei, and N. Vasile
179	Spectroscopic Bases for Performance Enhancement and Power Scaling of Nd:GSGG Lasers / poster	CLEO-Europe 2009 Conference, June 14-19, 2009, Munich, Germany, presentation CA.P.39	V. Lupei, A. Lupei, N. Pavel, and A. Ikesue
180	Passively Q-switched Cr <sup>4+</sup> :YAG/Nd-Lasers Pumped Directly into the Emitting Level / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S5-P60; Book of Abstracts, ISBN 978-973-614-507-0, pp. 199-200	N. Pavel, G. Salamu, O. Sandu, and T. Dascalu
181	Growth and characterization of Yb <sup>3+</sup> doped calcium lithium niobium gallium garnet (CLNGG) single crystals / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S1-P62; Book of Abstracts, ISBN 978-973-614-507-0, p. 86	A. Achim, L. Gheorghe, V. Lupei, A. Lupei, C. Gheorghe
182	Judd-Ofelt analysis of Nd <sup>3+</sup> in CLNGG single crystals / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S1-P64; Book of Abstracts, ISBN 978-973-614-507-0, p. 87	C. Gheorghe, A. Lupei, V. Lupei, L. Gheorghe, S. Hau
183	Visible luminescence of Y <sub>2</sub> O <sub>3</sub> :Er:Yb si YVO <sub>4</sub> :Er:Yb nanophosphors excited in infrared / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S1-P65; Book of Abstracts, ISBN 978-973-614-507-0, page 88	C. Matei, A. M. Voiculescu, S. Georgescu, E. Cotoi, O. Toma, O. Sandu
184	Reflectance spectra of YVO <sub>4</sub> :Eu Nanophosphors / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S1-P66; Book of Abstracts, ISBN 978-	A.M. Voiculescu, S. Georgescu, E. Cotoi, O. Toma, C. Matei

		973-614-507-0, page 88	
185	Second-harmonic generation of 400 nm blue-violet light in $Gd_{1-x}R_xCa_4O(BO_3)_3$ (R = Lu, Sc) crystals through noncritical phase-matching / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, paper S1-P63; Book of Abstracts, ISBN 978-973-614-507-0, p. 86	L. Gheorghe, P. Loiseau, G. Aka
186	THz Time Domain Spectroscopy of bovine serum albumine / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S4-P30; Book of Abstracts, ISBN 978-973-614-507-0, p. 158	A. Leca, M. Mernea, O. Calborean, D. Mihailescu, M.P. Dinca, and T. Dascalu
187	High-Power Intracavity Frequency-Doubled Nd:GdVO <sub>4</sub> Lasers Pumped Directly into the Emitting Level / poster	Nonlinear Optics (NLO) Conference, July 12-17, 2009, Honolulu, Hawaii, USA, paper JTUB24	N. Pavel
188	Zeolites/polymer nanohybrids with lanthanide's ions: Photoluminescence properties and interaction mechanisms / poster	Frontiers in Polymer Science (Poly 2009), 7-9 June, Mainz, Germany, 2009	C. Tiseanu, V.I. Parvulescu, M. Kumke, Cojocar B and A. Gessner
189	Structurephotoluminescence relationships in europium doped microporous and mesoporous materials / oral	7th International Conference on f-Elements (ICfE 2009), August 23-27, Köln, Germany, 2009	C. Tiseanu, M. Kumke, V. A. Lorenz-Fonfria, A. Gessner and Parvulescu
190	Polymer-coated lanthanide's-exchanged zeolites / poster	10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, paper S1-P60; Book of Abstracts, ISBN 978-973-614-507-0, page 85	C Tiseanu, V. I. Parvuleascu, B. Cojocar, A. Voiculescu and S. Georgescu
191	Growth and characterization of the partially disordered $La_3Ga_{5.5-x}Al_xTa_{0.5}O_{14}$ single crystals doped with $Eu^{3+}$ / poster	Romanian Conf. on Advanced Materials, Brasov, Romania, 25-28 August 2009; Abstract Book, ISSN 1842-3574, page 23.	A.M. Voiculescu, S. Georgescu, L. Gheorghe, A. Achim, O. Toma, C. E. Matei, M. Osiac
192	Eu-dopedlangasite, langatate and langanite - possible new red phosphors / poster	Romanian Conference on Advanced Materials, Brasov, Romania, 25-28 August 2009; Abstract Book, ISSN 1842-3574, page 28	S. Georgescu, A. M. Voiculescu, O. Toma, C. Tiseanu, L. Gheorghe, A. Achim, C. Matei
193	Optical properties of terbium complexes bound to mesostructured silica / poster	Romanian Conference on Advanced Materials, Brasov, Romania, 25-28 August 2009; Abstract Book, ISSN 1842-3574, page 68	C. Tiseanu, A. Voiculescu, C. Matei, S. Dobroiu, S. Georgescu, V. I. Parvulescu
194	Spectroscopic investigation of (Nd, Yb) in $Y_2O_3$ transparent ceramics / poster	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.P.1	A. Lupei, V. Lupei, A. Ikesue, C. Gheorghe, S. Hau
195	New laser materials and emission processes for non-conventional energy sources- nuclear fusion, solar-hydrogen cycle / invited	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.I.1	V. Lupei
196	Optical and morphologic properties of YVO <sub>4</sub> :Eu phosphor / poster	Micro- to Nano-PhotonicsII - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation III.P.1	S. Georgescu, A. M. Voiculescu, E. Cotoi, O. Toma, L. Gheorghe, A. Achim, C. Matei, I. Enculescu, E. Matei, M. Osiac
197	The upconversion luminescence of Y <sub>2</sub> O <sub>3</sub> :Er:Yb and YVO <sub>4</sub> :Er:Yb nanophosphors / poster	Micro- to Nano-Photonics II -ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation III.P.2	A.M. Voiculescu, S. Georgescu, E. Cotoi, O. Toma, C. E. Matei, O. Sandu
198	Progress in Passively Q-switched Lasers / invited	Micro- to Nano-Photonics II -ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, paper I.I.2	T. Dascalu, N. Pavel
199	Passively Q-switched Nd:YAG/Cr <sup>4+</sup> :YAG Laser Operated at High Temperature / oral	Micro- to Nano-Photonics II – ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.O.3	T. Dascalu, N. Pavel, N. Vasile, A. Leca, G. Salamu, and O. Sandu
200	Passively Q-switched	Micro- to Nano-Photonics II -	N. Pavel, M. Tsunekane,

	Nd:YAG/Cr <sup>4+</sup> :YAG Laser with a Volume Bragg Grating / oral	ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.O.1	and T. Taira
201	High Peak-Power Passively Q-switched Nd:YAG/Cr <sup>4+</sup> :YAGLasers / poster	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.P.2	N. Pavel, M. Tsunekane, and T. Taira
202	New nonlinear Gd <sub>1-x</sub> R <sub>x</sub> Ca <sub>4</sub> O(BO <sub>3</sub> ) <sub>3</sub> (R = Lu, Sc) crystals for 400 nm blueviolet light generation by type-I noncritical phase-matching frequency doubling processes / poster	Micro- to Nano-Photonics II - ROMOPTO 2009 Conf., August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.P.3	L. Gheorghe, A. Achim, P. Loiseau, G. Aka
203	THz spectral imaging for security applications / poster	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation VI.P.12	M. Mogaldea, G. Mogaldea, A. Leca, V. Ghenescu, M. Piso, and D. Apostol
204	Preliminary experiments in THz spectroscopy / poster	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation VI.P.11	G. Mogaldea, M. Mogaldea, A. Leca, V. Ghenescu, M. Piso, and D. Apostol
205	THz vibrational spectra simulated by molecular dynamics / oral	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation V.O.2	M. Mernea, D.F. Mihaileascu, O. Calborean, A. Leca, D. Apostol, M. Dinca, and T. Dascalu
206	THz time domain system for biomolecules spectroscopy / oral	Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation V.O.1	T. Dascalu, A. Leca, M. Dinca, D. Apostol, M. Mernea, O. Calborean, and D.F. Mihaileascu
207	Nd <sup>3+</sup> Yb energy transfer in (Nd, Yb):Y <sub>2</sub> O <sub>3</sub> transparent ceramics Ca-Li-Nb-Ta-Ga-garnet crystals / invited	5th Intern. Symposium on Laser, Scintillator and Non Linear Optical Materials (ISLNOM-2009), 3-5 Sept. 2009, Pisa, Italy; Book of Abstracts, ISBN 978-88-8492-638-8, p. 53 (2009)	A. Lupei, V. Lupei, A. Ikesue, C. Gheorghe, S. Hau
208	Spectroscopic properties of Yb <sup>3+</sup> in new disordered Ca-Li-Nb-Ga and Ca-Li-Nb-Ta-Ga-garnet crystals / poster	5th International Symposium on Laser, Scintillator and Non Linear Optical Materials (ISLNOM-2009), 3-5 Sept. 2009, Pisa, Italy, paper PA13; Book of Abstracts, ISBN 978-88-8492-638-8, p. 25 (2009)	V. Lupei, A. Lupei, L. Gheorghe, C. Gheorghe, A. Achim
209	Intensity of the f-f transitions of Nd <sup>3+</sup> inCLNGG single crystals / poster	5th International Symposium on Laser, Scintillator and Non Linear Optical Materials (ISLNOM-2009), 3-5 Sept. 2009, Pisa, Italy, paper PA12; Book of Abstracts, ISBN 978-88-8492-638-8, p. 24 (2009)	C. Gheorghe, A. Lupei, V. Lupei, L. Gheorghe, S. Hau
210	400 nm blue-violet light production by type-I noncritical phasematching second-harmonic generation in Gd <sub>1-x</sub> R <sub>x</sub> Ca <sub>4</sub> O(BO <sub>3</sub> ) <sub>3</sub> (R = Lu, Sc): crystal growth and nonlinear characterization / oral	5th International Symposium on Laser, Scintillator and Non Linear Optical Materials (ISLNOM-2009), 3-5 Sept. 2009, Pisa, Italy; Book of Abstracts, ISBN 978-88-8492-638-8, p. 43 (2009)	L. Gheorghe, P. Loiseau, G. Aka
211	Response of a resistive wall with holes to an external kink mode in a tokamak	21 <sup>ST</sup> INTERNATIONAL CONFERENCE ON NUMERICAL SIMULATION OF PLASMAS, LISBON, PORTUGAL, 6-9 OCTOBER 2009.	C.V. Atanasiu, A. Moraru, L.E. Zakharov
212	Influence of a Nonuniform Resistive Wall on the RWM Stability in a Tokamak	American Physical Society Plasma Meeting, Atlanta, USA, 2-6 November 2009	C.V. Atanasiu, A. Moraru, L.E. Zakharov
213	A field theoretical model of stationary atmospheric vortices / lucrare invitata	17th Conference on Atmospheric and Oceanic Fluid Dynamics, Stowe, VT, USA, 8-12 June 2009.	F. Spineanu, M. Vlad
214	Drift turbulence and structure generation <sup>n</sup> / invited talk.	International Symposium on Cutting Edge Plasma Physics, Trieste, Italia, 24-	M. Vlad, F. Spineanu

		28 August 2009	
215	Test particles, large scale correlations, and zonal flow generation / prezentare orală	2nd EFDA TTG Workshop, Culham, Marea Britanie, 16-18 September 2009	M. Vlad
216	Filamentation of strongly sheared rotation layers / prezentare orală	2nd EFDA TTG Workshop, Culham, Marea Britanie, 16-18 September 2009	F. Spineanu
217	Study of the plasma rf impedance variations	36 <sup>th</sup> EPS Conference on Plasma Physics, June 29 - July 3, 2009, Sofia, Bulgaria	O. S. Stoican,
218	Toward a mercury optical lattice Clock: Spectroscopy of the Clock Transition in Fermionic Isotopes,	Proc.EFTF, Besancon, Franta, 2009	S. Mejri, M. Petersen, D. V. Magalhães, C. Mandache, S. Dawkins, R. Chicireanu, Y. Lecoq, André Clairon, S. Bize
219	Development of an active H maser : first results	Euramet Time and Frequency Meeting Brussels, Belgia, 2009	C. Mandache, D. Leonard, T. Bastin,
220	Nonlinear Harmonic Boson Oscillator,	Central European Workshop on Quantum Optics, CEWQO 2009, Turku, Finland, 22-28 May 2009	B. Mihalcea,
221	Nonlinear Trap Stability Analysis,	Central European Workshop on Quantum Optics, CEWQO 2009, Turku, Finland, 22-28 May 2009	B. Mihalcea, G. Vişan
222	The effect of an external variable electric field on a discharge tube relaxation oscillator	10 <sup>th</sup> International Balkan Workshop on Applied Physics IBWAP, Constanţa, 6-8 July 2009.	O. S. Stoican
223	Radiofrequency expanding plasma sources at atmospheric pressure. Applications/Invited lectures	4th International Congress on Cold Atmospheric Pressure Plasmas: Sources and Applications (CAPPSSA 2009), Ghent, Belgia June 22-24 2009, published as extended proceedings, pag. 17-23.	G. Dinescu, E.R. Ionita, M. Teodorescu, C. Stancu. T. Acsente, M. Bazavan
224	Rotational Temperatures in a RF Nitrogen Plasma Jet at Low Pressure	19th International Symposium on Plasma Chemistry (ISPC), Bochum, Germany, July 26-31, 2009, published online: <a href="http://www.ispc-conference.org/ispcproc/papers/407.pdf">http://www.ispc-conference.org/ispcproc/papers/407.pdf</a>	B. Mitu, M. Bazavan, I. Luciu, T. Acsente, G. Dinescu
225	Polymer composite track nanomembranes with asymmetry of conductivity	19th International Symposium on Plasma Chemistry (ISPC), Bochum, Germany, July 26-31, 2009, published online: <a href="http://www.ispc-conference.org/ispcproc/papers/415.pdf">http://www.ispc-conference.org/ispcproc/papers/415.pdf</a>	L. Kravets, S. Dmitriev, V. Satulu, T. Acsente, G. Dinescu
226	Effects of cold plasma on B16 and COLO320 tumoral cells / (Prezentare poster)	"4th International Congress on Cold Atmospheric Pressure Plasmas: Sources and Applications - CAPPSSA 2009", Gent, BELGIA, 22 – 24 iunie 2009	Andreea-Roxana Lupu, N. Georgescu, Ana Călugăru, Lidia Cremer, G. Szegli, F. Kerek
227	Upgrade of the JET Tangential Gamma-Ray Spectrometer. Conceptual Design - (Prezentare poster)	23 <sup>rd</sup> Symposium on Fusion Engineering (SOFE), 31 <sup>st</sup> May – 5 <sup>th</sup> June 2009, San Diego, California, USA	V. Zoita, M. Curuia, S. Soare, V. Braic, T. Craciunescu, G. Gros, V. Kiptily, L. Rios, M. Anghel, P. Blanchard, M. Braic, T. Edlington, A. Murari, P. Prior, S. Sanders, B. Syme, I. Tiseanu and JET-EFDA contributors
228	Neutron Fluence Measurements on the JET Tokamak by Means of Super-Heated Fluid Detectors - (Prezentare poster)	36 <sup>th</sup> International Conference on Plasma Science (ICOPS), 31 <sup>st</sup> May – 5 <sup>th</sup> June 2009, San Diego, California, USA	V. Zoita, S. Conroy, T. Craciunescu, T. Edlington, M. Gat Johnson, M. Gherendi, C. Hellesen, S. Jednorog, V. Kiptily, A. Murari, A. Pantea, S. Popovichev, R. Prokopowicz, M. Scholz, and JET-EFDA contributors
229	Nuclear techniques for fusion plasma measurements on the JET	15th Conference "Progress in Cryogenics and Isotopes Separation "	V. Zoita, T. Craciunescu, M. Curuia, M. Gherendi, S.

	tokamak – prezentare orală	Calimanesti-Caciulata, Valcea, Romania, 28-30 october 2009.	Soare, V. Braic, V. Kiptily, L. Rios, A. Pantea, M. Anghel, N. Balshaw, P. Blanchard, M. Braic, M. Constantin, E. David, T. Edlington, G. Gros, K. Kneupner, A. Murari, P. Prior, S. Sanders, B. Syme, I. Tiseanu, and JET-EFDA contributors
230	Neutron Measurements on the JET Tokamak by Means of Bubble Detectors - (Prezentare poster)	15th Conference "Progress in Cryogenics and Isotopes Separation " Calimanesti-Caciulata, Valcea, Romania, 28-30 october 2009.	M. Gherendi, T. Craciunescu, T. Edlington, V. Kiptily, A. Murari, A. Pantea, S. Popovichev, V. Zoita and JET-EFDA contributors
231	Nanocomposite indium–tin oxide films formation induced by a large oxygen deficiency, (Prezentare orală)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	M.Nistor, W. Seiler, C. Hebert, J. Perrière
232	Metallic conductivity and metal-semiconductor transition in undoped ZnO thin films, (Prezentare poster)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	M. Nistor, F.Gherendi, N.B.Mandache, C. Hebert, J. Perrière
233	Zinc oxide thin films for transparent transistors, (Prezentare poster)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	M. Nistor, F.Gherendi, N.B.Mandache,
234	Investigation of the plasma plume produced by a pulsed electron beam by ion probes, (Prezentare poster)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	M. Nistor, F.Gherendi, N.B.Mandache,
235	Growth by pulsed-laser deposition of transparent p-n homojunction based on transparent conductive oxide, (Prezentare poster)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	E. Le Boulbar, J. Mathias, Ch. Boulmer-Leborgne, E. Millon, J. Perrière, W. Seiler, M.Nistor, J.B.Quoirin,
236	Growth of doped and undoped titanium oxide thin films by pulsed-laser deposition for transparent electronics, (Prezentare poster)	European Materials Research Society Spring Meeting (E-MRS 2009), 8-12 iunie 2009, Strasbourg, Franta,	E. Le Boulbar, J. Mathias, Ch. Boulmer-Leborgne, E. Millon, J. Perrière, W. Seiler, M.Nistor, N.Sbai,
237	Non-thermal plasma treatment of water containing pharmaceutical compounds, (Prezentare poster)	4 <sup>th</sup> International Congress on Cold Atmospheric Pressure Plasmas: Sources and Applications, 22-24 iunie 2009, Ghent, Belgia	M. Magureanu, D. Piroi, N.B. Mandache, V. David, A. Medvedovici, V.I. Parvulescu
238	Decomposition of organic dyes in water using non-thermal plasma, (Prezentare poster)	International Symposium on Plasma Chemistry (ISPC 19), 27-31 iulie 2009, Bochum, Germania	D. Piroi, M. Magureanu, N.B. Mandache, V.I. Parvulescu
239	Tomo-Analytic - a combined fully 3D X-Ray microtomography and microbeam fluorescence system. – prezentare orală.	PRORA 2009 - Fachtagung Prozessnahe Röntgenanalytik, 26-27 Nov. 2009, Berlin, Germany.	I. Tiseanu, T. Craciunescu, C. Dobrea, A. Sima.
240	Doppler Broadening of Gamma Ray Lines and Fast Ion Distribution in JET plasma. – prezentare orală, lectie invitata.	11th IAEA Technical Meeting on Energetic Particles in Magnetic Confinement Systems, Kyiv, Ukraine.	V.G. Kiptily, G. Gorini, I. Proverbio, M. Tardocchi, I.N. Chugunov, D. Gin, M. Nocente, S.D. Pinches, S.E. Sharapov, A.E. Shevelev, T. Craciunescu, F.E. Cecil, M. Gatun Johnson, V. Goloborod'ko, C. Hellesen, T. Johnson, K. Kneupner, A. Murari, P.G. Sanchez, D.B. Syme, P. de Vries, V. Yavorskij, V.L. Zoita.
241	Advanced X-ray imaging techniques for non-destructive analysis of fusion materials, prezentare orală	Romanian Conference on Advanced Materials ROCAM 2009, AUGUST 25-28th, 2009, Brasov, Romania	I. Tiseanu, T. Craciunescu, C. Dobrea, A. Sima.
242	Reverse Engineering of some Cardiovascular Device, prezentare	International Conference on Advancements of Medicine and Health	D. Rafiroiu, A. Iancu, A. Lazar, I. Tiseanu, T.

	orala.	Care through Technology, 23-26 Sept. 2009, Cluj-Napoca, Romania.	Craciunescu, J. Hart.
243	X-ray computed tomography for damage assessment of cultural heritage assets" - (poster presentation).	First International Conference Rome, June 21st - 24th 2009 Protection of Historical Buildings	Casali F., Morigi M.P., Brancaccio R., Montefusco L., Jerjen I., Flisch A., Sennhauser U., Liritzis I., Tiseanu I.
244	In-situ cross calibration method for alpha particle loss diagnostics at JET, (poster presentation).	36th EPS Conference on Plasma Physics June 29 - July 3, 2009, Sofia, Bulgaria.	G. Bonheure, C. Perez Von Thun, M. Reich, S. Jachmich, A. Murari, S.D Pinches, J Mlynar, M Hult, D Arnold, H Dombrowski, M Laubenstein, E Wieslander, T Vidmar, P. Vermaercke, F.E Cecil, M. Ceconelo, T. Craciunescu, D. Darrow, E. Lerche, M. Tardocchi, D. Van Eester, A. Salmi, M. Garcia-Munoz, V. Yavorskij, S. Popovichev, R. Koslowski.
245	Reconstruction Methods for JET Neutron and Gamma Tomography, poster.	15th Conference "Progress in Cryogenics and Isotopes Separation " Calimanesti-Caciulata, Valcea, Romania, 28-30 october 2009.	T. Craciunescu, G. Bonheure, V. Kiptily, A. Murari, S. Soare, I. Tiseanu, V. Zoita.
246	Radiation Structures for the JET Tangential Gamma-Ray Spectrometer, (poster presentation).	15th Conference "Progress in Cryogenics and Isotopes Separation " Calimanesti-Caciulata, Valcea, Romania, 28-30 october 2009.	S. Soare, M. Curuia, V. Zoita, V. Braic, T. Craciunescu, G. Gros, V. Kiptily, L. Rios, M. Anghel, N. Balshaw, P. Blanchard, M. Braic, D. Croft, T. Edlington, A. Murari, P. Prior, S. Sanders, B. Syme, I. Tiseanu.
247	Fast Neutron Filters for the JET Upgraded Gamma-Ray Cameras, (poster presentation).	15th Conference "Progress in Cryogenics and Isotopes Separation " Calimanesti-Caciulata, Valcea, Romania, 28-30 october 2009.	S. Soare, M. Anghel, T. Craciunescu, M. Curuia, T. Edlington, M. Gherendi, V. Kiptily, K. Kneupner, I. Lengar, A. Murari, A. Pantea, P. Prior, S. Sanders, B. Syme, I. Tiseanu, V. Zoita
248	The Influence of Mo Interlayer on the Properties of W Coating deposited on CFC and FGG Substrates by CMSII Technique	12 <sup>th</sup> International Workshop on Plasma Facing Materials and components for Fusion Applications, Jülich, Germany, 11-14 May 2009	C.Ruset, E.Grigore, H.Maier, S. Lindig, R.Neu, G.Matthews and JET-EFDA Contributors
249	Current Status of the JET ITER-like Wall Project	12 <sup>th</sup> International Workshop on Plasma Facing Materials and components for Fusion Applications, Jülich, Germany, 11-14 May 2009	G. F. Matthews, P.Edwards, H.Greuner, A.Loving, H.Maier, Ph.Mertens, V.Philipps, V.Riccardo, M.Rubel, C.Ruset, A.Schmidt, E.Villedieu and JET-EFDA contributors
250	Status of plasma facing materials for next step fusion devices	14th International Conference on Fusion Reactor Materials, Sapporo, Japan, 06. -11.09.2009	J. Linke, M. Batillot, G. Pintsuk, A. Prokhotseva, M. Rödig, C. Garcia-Rosales, A. Centeno, X. Liu, I. Kupriyanov, F. Koch, H. Maier, R. Neu, P. Norajitra, H. Kurishita, Z. Zhou, N. Baluc, J. Opschoor, T. Hirai, C. Ruset
251	Status of W coating techniques	17th European Fusion Physics Workshop, 7-9 December, 2009,	C. Ruset, E. Grigore, H. Maier, H. Greuner, R. Neu,

		Velence, Hungary	M. Mayer, G. Matthews
252	The influence of carbon content on the characteristics of V-C-N coatings deposited by combined magnetron sputtering and ion implantation (CMSII),	European Material Research Society, Spring Meeting, June 8-12, 2009, Strasbourg, France	E. Grigore , C. Ruset, X. Li, H. Dong
253	Zirconium carbonitride films deposited by combined magnetron sputtering and ion implantation (CMSII),	European Material Research Society, Spring Meeting, June 8-12, 2009, Strasbourg, France	E. Grigore , C. Ruset, X. Li, H. Dong
254	Optical fiber calibrations capabilities in Romania/ prezentare poster	"Winter College on Optics in Environmental Science", January – February 2009, Trieste/Italy	Laura Mihai si D.Sporea
255	Calibration reproducibility of optical fibers power meters/ prezentare orală	IV International SPIE Students' Chapters Meeting, May 2009, Torun/ Poland	Laura Mihai si D.Sporea
256	Microphysical characteristics of atmospheric aerosol depending on air mass origin/ prezentare orală	International workshop TAIEX, Pitești/ Romania, 3 – 4 June 2009	Laura Mihai et.all.
257	Best measurement capabilities for optical fibers systems/ lucrare invitată	International Nathiagali Summer College, 29 June – 4 July 2009, Pakistan	Laura Mihai si D. Sporea
258	Assessment of Irradiation Effects in Multimode Optical Fibers/ lucrare invitata	Conference Micro- to Nano-Photonics II - ROMOPTO 2009, 31 august –3 septembrie 2009, Sibiu, Romania.	D. Sporea, Adelina Sporea, C. Oproiu, I. Vata, D. Negut
259	Comparative evaluation of two optical spectrum analyzers/ prezentare orală	ROMOPTO 2009, 31 August – 3 September 2009, Sibiu/ Romania	Laura Mihai, D. Sporea, Adelina Sporea
260	Transfer of the laser power calibration at 1 mW/ prezentare poster	Conference Micro- to Nano-Photonics II - ROMOPTO 2009, 31 august –3 septembrie 2009, Sibiu, Romania.	D. Sporea, Adelina Sporea, Simona Iconaru
261	Evaluation of accelerometers' response by laser vibrometry/ prezentare poster	Conference Micro- to Nano-Photonics II - ROMOPTO 2009, 31 august –3 septembrie 2009, Sibiu, Romania.	D. Sporea, Adelina Sporea, Flavia Frumosu
262	Determining Aerosol Radiative Properties Using the Integrating Nephelometer/ prezentare orală	SPIE Europe Remote Sensing, 31 August – 3 September 2009 Berlin/ Germany	L.aura Mihai, Sabina Ștefan, I. Ungureanu
263	Assessment of Irradiation Effects in Multimode Optical Fibers/ prezentare orală	COST Action 299: "Optical Fibres for New Challenges Facing the Information Society" Technical Meeting 8, Wroclaw University of Technology, Wroclaw, Poland, September 9 - 11, 2009	D. Sporea, Adelina Sporea, C. Oproiu, I. Vata, D. Negut
264	Measurements of aerosol optical properties at urban sites to determine aerosol direct radiative effect /poster	International conference EAC 2009, 6 September – 11 September 2009 Karlsruhe/ Germany	Laura Mihai, Sabina Ștefan, R. Bîrlădeanu
265	Particulate matter optical properties in few sites of Bucharest/prezentare orală	OTEM 2009, 30 September – 2 October 2009, Bucharest/ Romania	Laura Mihai, R. Bîrlădeanu
266	The inquiry-based science education as basis for an educated and responsible citizen – the project "Discover!"/ lucrare invitata	Euroscience Mediteranean Event – ESME 2009, Atena 15-19 octombrie 2009	Dan Sporea si Adelina Sporea
267	Communicating Science through Science Education – The case of inquiry-based science education in schools/ lucrare invitata	Seminarul "Improving the Dialog with Society on Scientific Issues", organizat de Consiliul Stiintific pentru Cercetare Stiintifica al Frantei si Institutul National pentru Inginerie Fizica si Nucleara "Horia Hulubei", Bucuresti, 13 noiembrie 2009	Dan Sporea si Adelina Sporea
268	Plasma techniques for nanostructured carbon materials synthesis / <b>Invited lecture</b>	XXIX International Conference on Phenomena in Ionized Gases (29th ICPIG), Cancún, México, July 12-17, 2009/sent to publication Plasma Sources Science. Technol.	S. Vizireanu, S.D. Stoica P, C. Luculescu P, Husanu, B. Mitu, G. Dinescu



269	Radiofrequency expanding plasma sources at atmospheric pressure. Applications/ <b>Invited lecture</b>	4th International Congress on Cold Atmospheric Pressure Plasmas: Sources and Applications (CAPPSA 2009), Ghent, Belgia June 22-24 2009, published as extended proceedings, pag. 17-23.	G. Dinescu, E.R. Ionita, M. Teodorescu, C. Stancu. T. Acsente, M. Bazavan
270	Surface modification and film deposition with expanding RF plasmas at atmospheric and low pressure / <b>Invited lecture</b>	16th International Summer School on Vacuum, Electron and Ion Technologies (VEIT 2009), Sunny Beach, Bulgaria, 27.09-2.10. 2009	G. Dinescu
271	Radiofrequency plasma jet cleaning inside TOKAMAK deep gaps at atmospheric pressure/poster	International Colloquium on Plasma Processes (CIP 2009), Marseille, France June 22-26, 2009	E.R. Ionita, C. Stancu, G. Dinescu, C. Grisolia
272	Atmospheric pressure RF plasma jets generated by dielectric barrier discharges of various configurations / poster	International Colloquium on Plasma Processes (CIP 2009), Marseille, France June 22-26, 2009	M. Teodorescu. C. Stancu. E.R. Ionita, M. D. Ionita, M. Bazavan, G. Dinescu
273	Plasma investigation during carbon nanowalls synthesis by a radiofrequency beam discharge / poster	The European Materials Research Society (E-MRS) meeting, Strasbourg, France, June 8 - 12, 2009	S. Vizireanu, S. D. Stoica, B.Mitu, C. R. Luculescu, M.A. Husanu, L. Nistor, G. Dinescu
274	Carbon nanowalls as large area support of catalysts for fuel cell applications / poster	The European Materials Research Society (E-MRS) meeting, Strasbourg, France, June 8 - 12, 2009	S. Vizireanu, C.R. Luculescu, A. Andronie, A. Cucu, I. Stamatin, L.C. Nistor, G. Dinescu
276	Rotational Temperatures in a RF Nitrogen Plasma Jet at Low Pressure / poster	19th International Symposium on Plasma Chemistry (ISPC), Bochum, Germany, July 26-31, 2009, extended paper, 4 pages, published online: <a href="http://www.ispc-conference.org/ispcproc/papers/407.pdf">http://www.ispc-conference.org/ispcproc/papers/407.pdf</a>	B. Mitu, M. Bazavan, I. Luciu, T. Acsente, G. Dinescu
277	Polymer composite track nanomembranes with asymmetry of conductivity / poster	19th International Symposium on Plasma Chemistry (ISPC), Bochum, Germany, July 26-31, 2009, extended paper published online: <a href="http://www.ispc-conference.org/ispcproc/papers/415.pdf">http://www.ispc-conference.org/ispcproc/papers/415.pdf</a>	L. Kravets, S. Dmitriev, V. Satulu, T. Acsente, G. Dinescu
278	Polythiophene thin films deposited in various RF plasma polymerization configurations / poster	19th International Symposium on Plasma Chemistry (ISPC), Bochum, Germany, July 26-31, 2009, extended paper published online: <a href="http://www.ispc-conference.org/ispcproc/papers/602.pdf">http://www.ispc-conference.org/ispcproc/papers/602.pdf</a>	G. Dinescu, V. Satulu, A.C. Galca, B. Mitu
279	Carbon nanostructures growth by PACVD in a fluidized bed reactor on Fe-based catalysts / poster	The European Materials Research Society (E-MRS) meeting, Strasbourg, France, June 8 - 12, 2009	S. Vizireanu, D. Stoica, R. Birjega, L. Nistor, V. S. Teodorescu, C. Ghica, M. Husanu, R. Ganea, A. Braileanu, G. Dinescu
280	Carbon removal from deep gaps with atmospheric pressure plasma / poster	Sixteenth International Summer School on Vacuum, Electron, and Ion Technologies, Sunny Beach, Bulgaria, September 28-2, 2009	C. Stancu, E.R. Ionita, G. Dinescu
281	Investigation of Radiofrequency expanding plasmas used for carbon layers deposition / poster	Sixteenth International Summer School on Vacuum, Electron, and Ion Technologies, Sunny Beach, Bulgaria, September 28-2, 2009	S.D. Stoica, S. Vizireanu, B. Mitu, G. Dinescu
282	Carbon cleaning by a plasma torch from inside gaps- influence of the geometric aspect ratio of castellated surfaces / oral presentation	Fuel Removal EU PWI SEWG Summer Meeting, Cadarache, France, 15-17 June 2009	G. Dinescu, B.Mitu, E.R. Ionita, C.E. Stancu, M. Teodorescu, C. Grisolia
283	Dust Crystal Interaction with Plasma Jet / <b>prezentare invitata</b>	Summer College on Plasma Physics, Aug. 25, 2009, Trieste, Italia	C.M. Ticos
284	Interaction of Dust Particles with Plasma Jets / <b>prezentare invitata</b>	International Balkan Workshop on Applied Physics-IBWAP 2009, 6-8 Iulie, Constanta, Romania	C.M. Ticos
285	Dust crystal interaction with plasma flows /poster	International Conference on Plasma Science (ICOPS 2009) and Symposium on Fusion Engineering (SOFE), 31 Mai-	C. M. Ticoș, C. P. Lungu, P. Chiru, I. Mustață, V. Zaroschi

		5 Iunie, San Diego, California, SUA	
286	Influence of Helium as buffer gas to the 253nm/ 320nm xenon-iodine excimer spectral lines in a dielectric barrier discharge at moderate pressure/poster	International Balkan Workshop on Applied Physics, IBWAP 2009, 6-8 July, Constanta, Romania	L.C.Ciobotaru, C. Porosnicu
287	Preparation and Characterization of Multifunctional, Nanostructured Coatings Using Thermionic Vacuum Arc Method/ prezentare invitata	The Second International Workshop on Plasma Application and Hybrid Functionally Materials, The 16th Annual Meeting of Institute of Applied Plasma Science, March 6 - 7, 2009, Kobe, Japan	Cristian P. Lungu, Ion Mustata, Alexandu Anghel, Corneliu Porosnicu, Ionut Jepu, Catalin Ticos Ana M. Lungu, Mihai Ganciu, Arcadie Sobetkii, Gheorghe Honciuc and Patrick Chapon
288	Beryllium films coatings for fusion applications/prezentare orală	The 15th ICIT Conference with international participation, Progress in cryogenics and isotopes separation, Calimanesti-Caciulata, Romania, October 28-30, 2009	C. P. Lungu, I. Mustata, V. Zaruschi, A. M. Lungu, P. Chiru, A. Anghel, C. Porosnicu, I. Jepu, C. Ticos, G. Burcea, V. Bailescu, G. Dinuta,
289	Beryllium based films for fusion applications/prezentare invitata	International workshop "Transport in Fusion Plasmas", November 9-10, 2009, Craiova, Romania	C.P.Lungu
290	Aqueous Solution Purification by Bubbling Underwater Discharges/prezentare invitata	The 7th International Symposium on Applied Plasma Science, Hamburg, GERMANY August 31 - September 4, 2009	C. P. Lungu, I. Mustata, N. Georgescu, A. M. Lungu, V. Zaruschi, T. Velea, D. Stanciu, V. Predica,
291	Influence of Helium as a buffer gas to 253 nm/ 320 nm xenon-iodine excimer spectral lines in a dielectric barrier discharge at a moderate pressure/poster	Proc of. ISPC 19, International Symposium on Plasma Chemistry, Bochum, Germany, July 27-31, 2009	L.C. Ciobotaru, C. Porosnicu
292	Ni based alloy preparation on flexible substrates by TVA method/poster	Proc of. ISPC 19, International Symposium on Plasma Chemistry, Bochum, Germany, July 27-31, 2009	C.P. Lungu, M. Osiac, A.M.Lungu, C. Porosnicu, I.Jepu, I. Mustata, V. Zaruschi, O. Pompilian, P. Chiru, M. Burada, V. Soare, R. Vladioiu, V. Ionescu, V. Ciupina,
293	Comparison of the beryllium films prepared by thermionic vacuum arc and thermal evaporation methods/poster	Proc of. ISPC 19, International Symposium on Plasma Chemistry, Bochum, Germany, July 27-31, 2009	C. P. Lungu, I. Mustata, V. Zaruschi, A.M. Lungu, P. Chiru, A. Anghel, C. Porosnicu, I. Jepu, V. Bailescu, G. Burcea, G. Dinuta, F. Din, N. Balan, G. Serban and JET-EFDA Contributors,
294	Morphological and Structural Characterization of the C-W Nanocomposites/prezentare orală	17th Symposium on Application of Plasma Processes - SAPP, 17 - 22.01.2009, Liptovsky Jan, Slovakia	R. Vladioiu, V. Ciupina, A. Mandes, M. Contulov, V. Dinca, C. Porsnicu, C. P. Lungu,
295	Active species generation in water by direct electrical discharges/poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	Cristian P. Lungu, Ion Mustata, M. Bratescu, N. Saito, O. Takai
296	Carbon based nanostructures: synthesis and characterization /poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	V. Ciupina, I. Morjan, R. Alexandrescu, F. Dumitrache, G. Prodan, C.P.Lungu, R.Vladioiu, I. Mustata, V. Zaruschi, J. Sullivan, S. O'Saied, E. Vasile, I.M. Oancea Stanescu, M. Prodan, D. Manole, A. Mandes, V. Dinca, M. Contulov
297	Preparation and characterization of copper/nikel nanostructured	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009,	D. Rasleanu, D. Ilie, V. Ionescu, v. Mocanu, M.G.

	multilayers using thermionic vacuum arc method/poster	Constanta, Romania.	Muresan, I. M. Oancea-Stanescu, V. Ciupina, G. Prodan, E. Vasile, I. Mustata, V. Zaroschi, C.P.Lungu
298	Multilayer GMR/TMR depositions using thermionic vacuum arc method/ poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	Ionut Jepu, Ion Mustata, Catalin Luculescu, Victor Kuncser, Rodica Vladioiu, Cristian P. Lungu
299	Study of the substrate temperature influence on Be-C, Be-W stable alloys formation/ poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	Cristian P. Lungu, Alexandru Anghel, Corneliu C. Porosnicu, Ion Mustata, Ana M. Lungu, Petrica Chiru, Valer Zaroschi, Dorin Dudu, Ion Vata, Florin Miculescu, Victor Andrei, Rodica Vladioiu and Victor Ciupina
300	Ternary Be-C-W system formation usin thermionic vacuum arc method/ poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	C. P. Lungu, C. Porosnicu, A. Anghel, C. Luculescu, I. Mustata, AA. M. Lungu, P. Chiru, V. Zaroschi, D. Dudu, I. Vata, V. Andrei
301	Morphological and structural investigation of Co-MgF <sub>2</sub> granular thin films grown by thermionic vacuum arc. (TVA) method/ poster	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	Viorel Ionescu, Mariana Osiac, Cristian Lungu, Oana Pompilian, Ionut Jepu, Ion Mustata
302	Transmission electron microscopy investigation of Co-MgO films	10 <sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8th, 2009, Constanta, Romania	Geta Daniela Ungureanu-Dumitrica, N. Dulgheru, I.M. Oancea-Sytanescu, G.Prodan, V.Ciupina, I.Jepu, C.P.Lungu,
303	Thermoionic Vacuum Arc Plasma Oscillations Influences on Carbon Film Deposition/ prezentare orala	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	C. Porosnicu, C. Ticos, I. Jepu, I. Mustata, C. P. Lungu, C. E. A. Grigorescu, V. Andrei
304	TEM characterization of carbon-tungsten thin films deposited by Thermionic Vacuum Arc (TVA) technology/prezentare invitata	Nanotech Insight 2009, Barcelona, Spain, 29 March - 2 April 2009	V. Ciupina, R. Vladioiu, G. Prodan, A. Mandes, C. P. Lungu
305	Morphological and Compositional Study on Be-C/Be-W Composite Films Prepared By Thermoinic Vacuum Arc Method/ poster	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	C. Porosnicu, A. Anghel, C. P. Lungu, I. Mustata, V. Zaroschi,
306	Structure and Tribological Properties of Carbon Based Nanocomposites Grown by TVA Method/ poster	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	R. Vladioiu, V. Ciupina, M. Contulov, A. Mandes, V. Dinca, G.Prodan, C.P. Lungu,
307	Rutherford backscattering depth profile study of the C-W films prepared by thermionic vacuum arc method/ poster	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	Alexandru Anghel, Cornel Porosnicu, Cristian P. Lungu, Ion Mustata, Ana Mihaela Lungu, Petrica Chiru, Oana Pompilian, Catalin Ticos, Valer Zaroschi, Ofelia Muresan Dorin Dudu, Eugeniu Ivanov, Ion Vata, Victor Andrei, Mariana Osiac,
308	Combinatorial Carbon-Tungsten Film preparation by thermionic vacuum arc method/ poster	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	C. P. Lungu, A. M. Lungu, O. Pompilian, C. Porosnicu, R. Vladioiu, G. Prodan, V. Ciupina, M. Osiac, M.Ganciu, P. Chapon
309	Ion energy influence on nickel solar cell electrode deposition on flexible substrates/ poster	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France	Ionut Jepu, Cornel Porosnicu, Ana Mihaela Lungu, Petrica Chiru, Oana Pompilian, Valer Zaroschi,

			Catalin Ticos, Ion Mustata and Cristian P. Lungu
310	Characterisation of PZT films prepared by TVA and PLD techniques/ prezentare orala	Proc. E-MRS 2009 Spring Meeting, June 8-12, 2009, Strasbourg, France.	C.E.A. Grigorescu, C.P. Lungu, M.Osiac, C. Viespe, C. Grigoriu, L. Iordanescu, V. Ionescu, O.Monnerneau, L.Tortet, R. Notonier
311	Carbon-copper amorphous nanocomposite coatings grown by thermionic vacuum arc method/prezentare orala	International Conference Chimia 2009, "New trends in applied Chemistry", May 13-16 2009, Constanta, Romania	V. Ionescu, C. P. Lungu, M. Osiac, C. Cotarian, O. Pompilian, A. M. Lungu, V. Ciupina
312	Purification of solutions containing levigates by electrical discharges/ poster	International Conference Chimia 2009, "New trends in applied Chemistry", May 13-16 2009, Constanta, Romania	C. P. Lungu, I. Mustata, N. Georgescu, A. M. Lungu, T. Velea, D. Stanciu, V. Predica, V. Ionescu,
313	Influence of thermal treatment of Beryllium thin films deposited on graphite on the Be – C mixture formation/ poster	12th International Workshop on Plasma Facing Materials and Components for Fusion Applications, 11-14 May 2009, Julich, Germany,	A. Anghel, C. Porosnicu, C. P. Lungu, I. Mustata, K. Krieger,
314	Chaotic Dynamics of Plasma Produced in Metallic Vapours by a Thermionic Vacuum Arc/ poster	12th International Workshop on Plasma Facing Materials and Components for Fusion Applications, 11-14 May 2009, Julich, Germany,	C. M. Ticos, C. P. Lungu, P. Chiru, V. Zaroschi, I. Jepu, C. Porosnicu
315	Substrate Temperature Influence in Formation of Stable Be-W Composite Films Prepared by Thermionic Vacuum Arc Method/ poster	12th International Workshop on Plasma Facing Materials and Components for Fusion Applications, 11-14 May 2009, Julich, Germany,	C. Porosnicu, C. P. Lungu, A. Anghel, K. Sugiyama, K. Krieger, J. Roth, and V. Andrei
316	High power laser based pump sources for induced gamma emission and gamma-ray laser research / <b>invited lecture</b>	Workshop Laser based Nuclear Physics, 8th December, 2009 ENSTA-ILE, Palaiseau, France	M.Ganciu
317	Advances in depth profile analysis of isolating materials by radiofrequency glow discharge optical emission spectrometry (rf-GD-OES)	Winter Conference Graz 2009	Deraed C, Chapon P, Tauziede C, Tempez A, Ganciu M, Belenguer P, Guillot P
318	Spectroscopic evaluation of a miniature and compact magnetically boosted radiofrequency glow discharge for time-of-flight mass spectrometry	Winter Conference Graz 2009	Pisonero J, Vega P, Bordel N, Tempez A, Ganciu M, Sanz-Medel A
319	Synthesis of metal spheres obtained in an anodic arc plasma in high vacuum	Physics of Droplets, Casa Poporului, Romania, 4-6 Mai 2009	C. Surdu-Bob, M. Badulescu

## Anexa 10. Studii prospective si tehnologice normative, proceduri, metodologii

Nr. Crt.	Titlu	Operator economic	Nr. Contract/ Protocol
1	Acoperiri cu straturi de biosticle de componente pentru proteze ortopedice prin tehnologii laser pulsate avansate	FHIndustrie, Dr. Alain Aaron, Paris, Franta	Protocol INFLPR-FHIndustrie
2	I.Tiseanu, T. Craciunescu, Application of synchrotron-based characterization methods to fusion-specific materials problems - INFLPR experience in X-ray MICROCT for NDT inspection of fusion materials and further enhancements, FEMaS CA WP 2 Study, May 2009, Page 44-62	FEMaS-CA, <a href="http://www.femas-ca.eu">http://www.femas-ca.eu</a>	FP7 Grant Agreement 224752
3	Securitatea în utilizare a produselor cu laser Partea 2: Securitatea sistemelor de telecomunicații prin fibră optică (STFO)	ASOCIAȚIA DE STANDARDIZARE DIN ROMÂNIA (ASRO)	SR EN 60825-2/A1 CEI 60825-2/A1
4	Securitatea în utilizare a produselor cu laser Partea 4: Paravane de protecție împotriva radiației laser	ASOCIAȚIA DE STANDARDIZARE DIN ROMÂNIA (ASRO)	SR EN 60825-4/A1 CEI 60825-4/A1
5	Securitatea în utilizare a produselor cu laser Partea 1: Clasificarea echipamentului și prescripții	ASOCIAȚIA DE STANDARDIZARE DIN ROMÂNIA (ASRO)	SR EN 60825-1 CEI 60825-1

## Anexa 11. Drepturi de autor protejate ORDA

## Anexa 12. Membrii in colective de redactie ale revistelor ISI

Titlu	Revista	Numele si prenumele persoanelor
Membru al Advisory Board	"Journal of Optoelectronics and Advanced Materials"	D. C. Dumitraș
Membru Advisory Board	Journal of Optoelectronics and Advanced Materials	Dan Apostol
Membru in Consiliul Editorial (Editorial board)	Journal of Optoelectronics and Advanced Materials	Ion N. Mihailescu
Membru in Consiliul Editorial (Editorial board)	Digest Journal of Nanomaterials and Biostructures	Ion N. Mihailescu
Editor invitat pentru volum de proceedings	Thin Solid Films	Valentin Craciun
Membru International Editorial Board	Laser Therapy	M.L. Pascu
Membru International Editorial Board	Photomedicine and Laser Surgery	M.L. Pascu
Membru International Editorial Board	Lasers in Medicine and Surgery	M.L. Pascu
Membru International Editorial Board	Letters in Drug Design & Discovery	M.L. Pascu

Membru in colectivul de redactie	Journal of Optoelectronics and Advanced Materials	Grigoriu Constantin
Membru Editorial Board	The Open Surface Science Journal	Eniko Gyorgy
Membru al colectivului editorial al revistei	J. European Optical Society (Londra) (din 2006-azi)	Acad. Prof. Valentin I. Vlad
Membru al colectivului editorial al revistei	J. Optoelectronics and Advanced Materials – RC (din 2006-azi);	Acad. Prof. Valentin I. Vlad
Membru al colectivului editorial al revistei	SPIE Review (din 2008-azi).	Acad. Prof. Valentin I. Vlad
Editor sef al revistei	Proceedings Romanian Academy, Seria A si Romanian Reports in Physics (2000-azi, in baza de date ISI, din 2007).	Acad. Prof. Valentin I. Vlad
Editura Benthan Open	The open Ceramic Science Journal - ISSN 1876-3952,	Dr. Rodica Alexandrescu-ales in colectivul editorial international al revistei
Comitetul tehnic 76 "Securitatea in utilizare a laserilor si radiatiei optice"	Comisia Internationala pentru Electrotehnica	Dan Sporea
Work Group 5: Security, Metrology & Sensors	Photonics21	Dan Sporea
Work Group 7: (research, education and training).	Photonics21	Dan Sporea
Member of International Advisory Board	Plasma Processes and Polymers (IP=2,9)	Dinescu Gheorghe

### **Anexa 13. Membrii in colective de redactie ale revistelor recunoscute national**

Titlu	Revista	Numele si prenumele persoanelor
Membru al Colegiului Editorial	"Buletin Științific", Universitatea Politehnica București	D. C. Dumitraș
Membru al colectivului editorial al revistei	Academica (din 2006-azi);	Acad. Prof. Valentin I. Vlad

### **Anexa 14. Premii internationale**

Premiu	Autoritatea care l-a acordat	Autorii
Medalia Sveti Vlaho Zastitnik Grada in timpul Conferintei "New challenges in heat treatment and surface engineering", Cavtat, Croatia, 9-12 Iunie, 2009	International Federation for Heat Treatment and Surface Engineering (IFHTSE)	Ion N. Mihailescu
Diploma E-MRS pentru servicii aduse societatii	E-MRS	V Craciun
Cel mai bun poster "BIOGLASS-PMMA NANOCOMPOSITE COATINGS OBTAINED BY MATRIX ASSISTED PULSED LASER EVAPORATION ON	International Federation for Heat Treatment and Surface Engineering (IFHTSE)	Sima Felix

TITANIUM FOR ORTHOPAEDIC IMPLANTS”, in timpul Conferintei "New challenges in heat treatment and surface engineering", Cavtat, Croatia, 9-12 Iunie, 2009		
Third Prize Award pentru lucrarea “Lead-free ferroelectric thin films obtained by pulsed laser deposition”	10 <sup>th</sup> International Conference on Laser Ablation COLA 2009, Co- Chairs Organizing Comity	N.D. Scarisoreanu, Chis Andreea, R. Birjega, C. Luculescu, F. Craciun, C. Galassi, M.Dinescu
Premiul pentru cea mai buna prezentare poster la conferinta European Research Materials, Spring Meeting 2009, 8-12 June, Strasbourg 2009	European Research Materials Society	M.Ulmeanu, M. Zamfirescu, L. Rusen, C. Luculescu, A. Moldovan, A. Stratan, R. Dabu
Science Team Award, 2008	Rolls-Royce	L. Williams, V. McDonnell, D. Sporea, Mihaela Garabet

### Anexa 15. Premii nationale

Premiu	Autoritatea care l-a acordat	Autorii
Premiul pt. cea mai buna prezentare poster acordat lucrarii "High-aspect-ratio photonic structures produced by two-photon photo-polymerization" la conferinta ROMOPTO2009	Societatea Romana de Fizica	M. Zamfirescu, F.Jipa, M.Ulmeanu, C.Luculescu, I.Ionita, R.Dabu
Premiul “Dragomir Hurmuzescu”	Academia Romana	C. P. LUNGU

### Anexa 16. Excelenta internationala recunoscuta

1.	- News Alerts on EU Research, 17.08.2009, <b>ITER development progresses: Romanian scientists develop reinforced coat for fusion reactor</b>
2.	- Fusion News, Newsletter Vol. 3 December 2009, pag.12, <b>MEdC chosen to provide tungsten coatings for JET</b>
3.	- Fusion and Industry together for the future, EUROPEAN COMMISSION, Directorate-General for Research, Fusion Energy Research, <b>New Coat for Hot Tiles</b> , pag.23-24

### ANEXA 17 A. Parteneriate internationale

- Parteneriat cu EFDA-JET pentru participarea la proiecte EURATOM-FUZIUNE in cadrul FP7(UKAEA, Anglia; FZJ si IPP, Germania, VTT, Finlanda; CEA, Franta; ENEA, Italia; IPPLM Polonia; TARTU, Estonia)
- Parteneriat pentru participare la proiect STREP in cadrul FP6 (Franta, Anglia, Germania, Italia, Spania)
- Parteneriat in cadrul actiunii COST - *MPNS Action MP0804* . Highly Ionised Pulse Plasma Processes (2008 - 25 June 2013)
- Parteneriat in cadrul LASERLAB
- Parteneriat in cadrul EURATOM
- Parteneriat cu 13 tari europene in cadrul ELI
- Parteneriat cu IUCN Dubna
- Parteneriat in cadrul COST, INFLPR coordonator din partea romana, 17 tari UE si asociate, P21, Physics of Droplets

9. Parteneriat in cadrul COST ,INFLPR coordonator din partea romana, 24 tari UE si asociate ,B30, Neural Regeneration and Plasticity: NEREPLAS
10. Parteneriat in cadrul COST, INFLPR coordonator din partea romana, 24 tari UE si asociate ,BM 0601, Advanced Methods For The Estimation Of Human Brain Activity And Connectivity (NEUROMATH)
11. Parteneriat in cadrul COST, INFLPR coordonator din partea romana, 24 tari UE si asociate ,BM 0605, Consciousness: A Transdisciplinary, Integrated Approach
12. Parteneriat in cadrul COST, INFLPR coordonator din partea romana; M.L.Pascu vicepresedinte al retelei; 17 tari UE si asociate,BM0701 ATENS, Antibiotic transport and efflux: new strategies to combat bacterial resistance
13. Parteneriat in cadrul COST Action MP0702,20 centre europene, coord: Universitatea "La Sapienza" –Prof. Concita Sibilia,"Towards Functional Sub-Wavelength Photonic Structures"
14. Parteneriat in cadrul COST, INFLPR coordonator din partea romana, 14 tari UE si asociate, Action MP0601: Short Wavelength Laboratory Sources
15. Programme Hubert Curien (PHC)- Brancusi, France, Laboratoire de Chimie Physique et Rayonnement Alain Chabaudet UMR EA, Université de Franche-Comté, Besancon,Mecanisme de foto-oxidare ale tiolilor de catre speciile reactive generate prin fotosensibilizarea ftalocianinelor
16. Acord interguvernamental - Protocolul celei de a XV-a sesiuni a Comisiei mixte romano – italiene pentru cooperare stiintifica si tehnologica,Italia – Universitatea "La Sapienza" - Roma,Proiect nr. 18, Optical devices using spatial solitons and nonlinear interactions in photorefractive crystals for communication"
17. Bilateral Programme with Laboratory of Laser Induced Photochemistry, Institute for Chemical Process Fundamentals of the Academy of Science of the Czech Republic, Prague, „Composite Nanostructures (metal– and polymer– based) prepared by laser Pyrolysis“, 2007-2009
18. Bilateral Programme, Fabrication and characterization of nanostructured thin films and nanoparticles for applications in photonics, acord bilateral cu Institute of Electronics, Sofia, Bulgaria
19. Bilateral Programme, Micro and nanopatterned surfaces and magnetic nanoparticles as new generation in biomaterials, acord bilateral cu Institute of Solid State Physics, Sofia, Bulgaria
20. Bilateral Programme, Innovative nanostructured and nanocomposite media: diluted magnetic semiconductors, acord bilateral cu Institute of Solid State Physics, Sofia, Bulgaria
21. Bilateral Programme, New approaches in the synthesis of thin chalcogenide layers for sensing applications, acord bilateral cu Institute of Electrochemistry and Energy Systems, BAS, Sofia, Bulgaria
22. Bilateral Programme, Laser ablation and Matrix Assisted Pulsed Laser Evaporation for synthesis of thin films for biomedical, chemical, optoelectronic and metallurgical applications, acord bilateral cu Institute of Physics, Praga, Cehia
23. Bilateral Programme, Thin films and structures for medical, chemical and biological applications, acord bilateral cu Hebrew University of Jerusalem, Israel
24. Bilateral Programme, Advanced laser plasma studies: spectroscopic diagnostics and applications in thin film deposition and characterizations, acord bilateral cu Institute of Physics in Zemun, Belgrad, Serbia
25. Bilateral Programme, Research on fundamental processes in plasma laboratory, acord bilateral cu Institute of Nuclear Sciences VINCA, Belgrad, Serbia
26. Bilateral Programme, Physical and chemical approaches to the synthesis of visible-light sensitive semiconductor films for photo-catalytic application, acord bilateral cu O. Chuiko Institute of Surface chemistry of NAS of Ukraine, Kyiv
27. Parteneriat pentru dezvoltarea unor sisteme laser in femtosecunde de mare energie: Institut d'Optique, **LOA, ILE (Franta)**, Firma Amplitude Technologies (Franta).
28. **ERA-NET MANUNET-2009** , Partener: RTM S.p.A. - Via Circonvallazione 7 - 10080 Vico Canavese, Italia Proiect international: BIO.NANO.LAS / Laser-based manufacturing system for biotech nanoparticles production
29. ERA-NET, . partener: Technical University of Lodz si Military University of Technology (MUT) Warsaw , Polonia contractul „New carbon-hydroxyapatite nanocomposites on metallic bases applied in medicine”.
30. Contractul EUREKA 3033 „Hydroxyapatite Nanocomposite Ceramics - New Implant Material For Bone Substitutes (BIONANOCOMPOSIT)” cu parteneri din 7 tari europene.



31. **NATO-SfP 982671** Polymers based piezoelectric sensor array for chemical warfare agents detection (2007-2010)
32. **NMP3-CT-2006-033297 3D-DEMO** Single step 3D Deposition of complex nanopatterned Multifunctional Oxides thin films (2006-2010)
33. Parteneriat cu programul francez «La main a la pate»
34. **Parteneriat FP6 STREP “BONSAI”**- “Bio-imagistica cu nanoparticule functionale inteligente“ (“Bio-imaging with Smart Functional Nanoparticles” (2006-2009) :
35. **Parteneriat in consorțiul «Fibonacci»**
36. **Parteneriat in PC 7 - Research for SMEs– Proiect CURARE** (Computer-aided laser surface treatment and combined nitriding of forging dies with the objective of a lifetime increase (2008-2010) (9 parteneri din Germania, Italia, Portugalia, Slovacia si Romania)
37. **Parteneriat in PC 7 - Coordination Action - FEMaS** - Fusion Energy Materials Science (2008-2011) (28 parteneri)
38. **Acord de cooperare franco-roman** : Croissance de films d’oxydes transparents conducteurs (2009-2010)

## ANEXA 17 B. Parteneri internationali

1. Universitatea Tehnologica Eindhoven, Olanda
2. IUCN Dubna, Rusia
3. Institut de Recherche sur la Fusion par Confinement Magnétique. CEA, Cadarache, France
4. Flemish Institute for Technological Research, VITO, Mol, Belgium
5. ENEA Ente Nazionale per le Nuove Tecnologie, l’Energia e l’Ambiente – Italia UNPD Università di Padova, – Italia
6. GPI General Physics Institute- Natural Sciences Centre – Federatia Rusa
7. CEA Commissariat a l’Energie Atomique-Direction des Sciences de la Materie - Franta
8. MPI Max Planck Gesellschaft-Max Planck Institute of Colloids and Interfaces - - Germania
9. UNIFR University of Freiburg- Center for Applied Biosciences – Inst. Biology II - Germania
10. CSIC Consejo Superior de Investigaciones Cientificas-Instituto de Ciencia de Materiales - Spania
11. UNIMIB Università di Milano-Bicocca, Dipartimento di Medicina Sperimentale, Ambientale e Biotecnologie Mediche - Italia
12. NANOVEC NANOVECTOR srl – Italia
13. UCM - Universidad Complutense Madrid-Instituto de Magnetismo Aplicado - Spania  
GUERBET - Guerbet Laboratories - Franta
14. TILL - TILL GmbH - Germania
16. Universitatea din Palermo Italia
15. LB Acoustics Austria
16. Karlsruhe Institute for Technology,
17. Karlsruhe University – Institute for Mechanics and Mechanical Technology
18. Lee Bionanosciences Laboratory at UCD School of Chemistry and Chemical Biology.
19. University of Birmingham - School Of Chemical Engineering
20. Fraunhofer Institute for Production Technology IPT, Germany
21. DMF Werkzeugbau GmbH, Germany
22. A. BENEVENUTA & C. S.p.A., Italy
23. EDAETECH Engenharia e Tecnologia, S.A., Portugal
24. Forjaco - Aco Forjado, Lda. FAF, Portugal
25. KLF - ZVL MTK spol. s.r.o. (MTK), Slovakia
26. Rasche Umformtechnik GmbH & Co. KG, Germany
27. Istituto Per Le Ricerche Di Tecnologia Meccanica R.T.M., Italy
28. Culham Centre for Fusion Energy, UK – JET
29. Max-Planck Institute for Plasma Physics, Garching, Germany
30. ENEA, Italy
31. CEA, Franta
32. TARTU, Estonia
33. IPPLM, Poland
34. Forschungszentrum Juellich, Germania

35. TEC, Belgium
36. FZK, Karlsruhe, Germany
37. CIEMAT, Madrid, Spain
38. l'Institut de NanoScience de Paris (INSP), Universitatea Paris 6, Franta
39. Uppsala University, Uppsala, Sweden

## **ANEXA 17C. Parteneriate interne pe proiecte**

1. Institutul National de Cercetare – Dezvoltare Fizica Materialelor
2. Institutul de Fizica si Inginerie Nucleara - "Horia Hulubei", Bucuresti
3. INCAS : Institutul National de Cercetari Aerospatiale – Bucuresti
4. Institutul de Chimie Fizica, Bucuresti
5. Institutul de Optoelectronica, INOE 2000
6. Institutul de Microtehnologie, IMT Bucuresti
7. Institutul National de Stiinte Biologice, Bucuresti
8. Institutul National de Cercetare– Dezvoltare pentru Chimie si Petrochimie
9. INCDSIM : Institutul national de Cercetare-Dezvoltare in Sudura si Incercari de Materiale Bucuresti
10. Institutul National de Cercetare-Dezvoltare pentru Pedologie Agrochimie si Protectia Mediului
11. Institutul National pentru Sport, Bucuresti
12. Administratia Nationala de Meteorologie
13. Universitatea Bucuresti
14. Universitatea Politehnica Bucuresti
15. UOC : Universitatea "Ovidius" Constanta
16. Universitatea "Politehnica", Timisoara.
17. Universitatea de Vest, Timisoara
18. Universitatea UAIC Iasi
19. Universitatea de Medicina Carol Davila, Bucuresti
20. Centrul de Cercetari Avansate si Fundamentale, Academia Romana – Filiala Timisoara
21. AR-FT : Academia Roman- filiala Timisoara,
22. Spitalul Clinic Fundeni, Bucuresti
23. Spitalul Clinic Th. Burghele, Bucuresti
24. ICPE S.A., Bucuresti
25. UTI Group
26. INTEGRATOR SA
27. InterNet s.r.l
28. PROOPTICA SA, in cadrul proiectelor in parteneriat din PNCD.
29. Laser Optics S.R. L. (PNCDI II Parteneriate/ 41-018)
30. Givaroli Impex SRL (PNCDI II/ Parteneriate: 71-034);
31. CPZ : S.C. Compozite S.R.L. Brasov, (PNCDI II/ Parteneriate 71-125/2007-2010)
32. INCD Chimico-Farmaceutic

## **ANEXA 17 D. Inscrierea INCD ca membru in retelele de cercetare / membru in asociatii profesionale de prestigiu pe plan national / international**

1. Platforma Nationala „Food for Life” - Romanian Technology Platform „Food for Life” (RoTP),coordonator Institutul de Bioresurse Alimentare
2. Membru fondator al retelei nationale din cadrul platformei EU NANOMEDICINA,
3. membru al retelei „Optical Fibres for New Challenges Facing the Information Society”;
4. Membru OSA;
5. Membri SPIE;
6. Membru EOS;
7. Membru IEEE – LEOS;
8. Membru al Comitetul tehnic 76 al Comisiei Internationale pentru Electrotehnica;
9. Membru al European Technology Platform „Photonics21”, WG5 (security, metrology and sensing).
10. Membru European Science Education Research Association - ESERA;
11. Membru European Science Events Association - EUSCEA
12. Membru fondator Network of Youth Excellence;
13. Membru Coalition for Science After School;
14. Membru al European Technology Platform „Photonics21”

## **ANEXA 17E. Participarea in comisii de evaluare concursuri nationale si internationale**

1. Evaluari proiecte nationale Bulgaria: 1
2. Evaluari proiecte nationale Cehia:3
3. Evaluare COST, P21, Physics of Droplets
4. Evaluare COST, B30, Neural Regeneration and Plasticity: NEREPLAS
5. Evaluare COST, BM 0601, Advanced Methods For The Estimation Of Human Brain Activity And Connectivity (NEUROMATH)
6. Evaluare COST, BM 0605, Consciousness: A Transdisciplinary, Integrated Approach
7. Evaluare COST, BM0701 ATENS, Antibiotic transport and efflux: new strategies to combat bacterial resistance
8. Participare in comisii de evaluare de proiecte de colaborare LARGE, FP7, Bruxelles
9. Evaluare proiecte internationale: DOE (USA), FP7, CNRS (Franta)
10. Evaluare de proiecte europene pentru apelul FP7-ENERGY: 1
11. Evaluare de proiecte FONDECYT (Chile): 1
12. Monitorizare IDEI-PCE-Competitia 2007: 2

## **ANEXA 17 F. Personalitati stiintifice care au vizitat INCD**

1. Prof. V. Buck – Duisburg Essen University (Germania)
2. Prof. J. Barbeau – Montreal University (Canada)
3. Dr. M. Yahia – Honeywell (Cehia)
4. Dr. R. Layberry – Oxford University (UK)
5. Prof Pierre Agostini, Ohio State University, USA
6. Prof. Jacob Sagiv, Dept. of Materials and Interfaces, Weizmann Institute of Science, Israel;
7. Prof. Mauro Pereira, Sheffield Hallam University UK
8. Prof. Petar Atanasov, Bulgarian Academy of Sciences, Institute of Electronics, Bulgaria;
9. Prof. Ioannis Giapintzakis, Department of Mechanical & Manufacturing Engineering, University of Cyprus, Cipru;
10. Prof. Jacques Werckmann, IPCMS, Strasbourg, Franta;
11. Dr. Cyril Popov, University of Kassel, Institute of Nanostructure Technologies and Analytics, Germania;
12. Prof. László Nánai, Department of Physics, JGYTF, University of Szeged, Ungaria
13. Dr. Maria Pervolaraki, Department of Mechanical and Manufacturing Engineering, University of Cyprus Cipru;
14. Prof. Mironel Enescu, Laboratoire de Chimie Physique et Rayonnement Alain Chabaudet UMR EA, Université de Franche-Comté, Besancon
15. Prof. Jan Barcal, Brno University, Czech Republic
16. J.P. Chambaret, G. Mourou, P. Zeitoun (Franta), T. Tajima (Japonia), J. Collier (Marea Britanie),
17. Prof. Costas Fotakis, FORTH – IESL Heraklion, Grecia
18. Prof. Enrico Verona, IDAC-CNR, Italia
19. Prof. Thomas Lippert, PSI, Elvetia
20. Prof. Dr. Eugenio Fazio, Universitatea „La Sapienza”, Roma, Italia
21. Dr. Maria Hamrin, Umeå University, Umeå, Suedia
22. Prof. Tomas Karlsson, Royal Institute of Technology, Stokholm, Suedia
23. Dr. Hans Nilsson, Institute for Space Physics, Kiruna, Suedia
24. Dr. Patrik Norqvist, Umeå University, Umeå, Suedia
25. Prof. Joachim Vogt, Jacobs University Bremen, Bremen, Germania
26. Dr. Jay Johnson, Space Physics Department, Plasma Physics Laboratory, University of Princeton, USA
27. Prof. Tiberiu Minea, LPGP, Universite Paris 11 (Orsay), Franta
28. M. Misawa, senior researcher, Institute for Human Science and Biomedical Engineering, Biomedical Sensing and Imaging Group, National Institute of Advanced Industrial Science & Technology (AIST) 1-2-1 Namiki, Tsukuba, Ibaraki 305-8564, Japonia
29. Josep M. Soler, senior researcher, Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Institut de Ciències de la Terra "Jaume Almera" (CSIC) Lluís Solé i Sabarís, s/n - 08028 Barcelona, Spania
30. Prof. Francesco Romanelli, EFDA Leader for JET

## ANEXA 17G. Lectii Invitate

1. Invited Lecturer SPIE Prof. Mauro Pereira: 3/2/2009" 21st Century Optical Engineering : Manipulating Nonequilibrium Many Body Effects to create new THz Devices" by Prof. Mauro F. Pereira from Sheffield Hallam University UK
2. Invited lecture: Prof Pierre Agostini, Ohio State University, USA : 24.09.2009 „Exploring the wavelength scaling of laser – atom interactions: Fundamentals and applications”
3. Prof. Jacob Sagiv, "Micro-to-Nano-Fabrication by the Bottom-up (Chemical) Approach"
4. Prof. Petar Atanasov, "Metal nanoparticles: nanostructuring of different substrates and surface enhanced Raman scattering"
5. Prof. Ioannis Giapintzakis, "Investigation of Single Molecule Magnet Thin Films Fabricated by Matrix Assisted Pulsed Laser Evaporation"
6. Prof. Jacques Werckmann, „Study of nano-objects using electron tomography: morphology, spatial distribution and chemical composition”
7. Dr. Cyril Popov, "Nanocrystalline and amorphous thin films for sensor applications"
8. Prof. László Nánai, "Laser-Induced Gold Deposition from Liquid Precursors"
9. J.P. Chambaret, G. Mourou (Franta)
10. Yves QUERE, Profesor universitar, membru al Academiei de Stiinte din Franta;
11. Ana Gostincar BLAGOTINSEK , Conferentiar, Facultatea pentru Stiintele Educatiei, Liubliana, Slovenia;
12. Olivier BURGER, Inspector pentru Normandia al Ministerului Educatiei din Franta;
13. Lidia Ochoa CANIGUERAL, Lector, Facultatea de Psihologie si Stiintele Educatiei, Universitatea din Girona, Spania
14. Thierry HOUYEL, Inspector al Ministerului Educatiei din Franta pentru zona de Sud-Est a Europei;
15. Stevan JOKIC, Profesor universitar si cercetator, Vinca Institute of Nuclear Sciences, Belgrad, Serbia;
16. Katarina Romana KOTULAKOVA, Lector, Facultatea pentru Stiintele Educatiei, Universitatea din Trnava, Slovacia;
17. Michel LOSTANLEN, Director al liceului francez "Anna de Noailles" din Bucuresti ;
18. Stuart NAYLOR, Cercetator, consultant, scriitor, Millgate House Education, Sandbach, Marea Britanie;
19. Nazim SELLAL, Profesor de biologie, liceul francez "Anna de Noailles" din Bucuresti ;
20. Petra SKIEBE, Profesor universitar, Freie Universitat Berlin, Germania;
21. Kristina ZOLDOSOVA, Lector, Facultatea pentru Stiintele Educatiei, Universitatea din Trnava, Slovacia;
22. Alain Chomat, expert al programului „La main à la pâte”, Franta
23. Jean-Francois Rodes, expert al programului „La main à la pâte”, Franta
24. *Deposition of DLC by Cathodic arc – overview, Prof. Buck*
25. *Biofilms: The microbial way of life, Prof. J.Barbeau*
26. Modeling plasma physics, Dr. R. Layberry
27. "Entropy Constraints on plasma sheet transport processes" dr. Jay Johnson, Space Physics Department, Plasma Physics Laboratory, University of Princeton, USA, -
28. "Tematici actuale ale Grupului de Teoria si Modelarea Plasmei de la Laboratorul LPGP, Orsay, Franta", Prof. Tiberiu Minea, LPGP, Universite Paris 11 (Orsay), Franta -

## **ANEXA 17 H. Conferinte internationale organizate de INFLPR**

- Organizarea Conferintei Internationale de Optica “Micro- to Nano-Photonics II - ROMOPTO 2009”, 31 August – 3 Septembrie 2009, Universitatea “L. Blaga”, Sibiu.  
Prin eforturile Comitetelor Stiintifice, la prezenta editie au fost selectate si prezentate 120 lucrari stiintifice cu autori din 15 de tari. S-au prezentat: 8 lucrari plenare (Prof. Asher A. Friesem, Prof. Colin J. Sheppard, Prof. Johann Peter Reithmayer, Prof. Richard De La Rue, Prof. Jean Pierre Huignard, Prof. Jacob Sagiv, Prof. Sergey V. Gaponenko, Prof. Edmond Turcu), 27 lucrari invitate, 38 comunicari orale si 47 postere;
- INFLPR, Grupul de Spectroscopie Laser a organizat in mai 2009 Joint Conference of the 7th Management Committee Meeting and Working group Meetings of COST Action P21 “The Physics of Droplets”, la care au prezentat lectii invitate un numar de 24 participanti straini din 19 tari din Uniunea Europeana:
- Organizarea Conferintei LEI 2009 „Light at Extreme Intensities” October 16-21, 2009, Brasov

## **ANEXA 17 I. Personalitati stiintifice Romanesti in comitetele de organizare ale conferintelor nationale si internationale**

1. Acad. V. Vlad, Conferintei Internationale de Optica “Micro- to Nano-Photonics II - ROMOPTO 2009”, 31 August – 3 Septembrie 2009, Universitatea “L. Blaga”, Sibiu.
2. Dr. D. Dumitras, International Conference LEI 2009 „Light at Extreme Intensities” October 16-21, 2009;
3. Dr. M. Dinescu , International Conference on laser ablation, COLA, Singapore;
4. Dr. M. Dinescu, Dr. V. Craciun, E-MRS Spring Meeting Strasbourg, Franta
5. Dr. M.L. Pascu, Comitetul Stiintific International al conferintei LASER FLORENCE 2009, noiembrie 2009, Florenta, Italia
6. Dr. M.L. Pascu, Comitetul Stiintific si Presedinte al Comitetului de Organizare al Conferintei retelei europene COST P21 - Fizica Picaturii, Bucuresti, Palatul Parlamentului, mai 2009.
7. Dr. M.L. Pascu, Comitetul Stiintific International al celei de-a treia Conferinta Anti-Ageing, AMAA-2009, aprilie 2009, Eforie
8. Dr. M.L. Pascu , Comitetul Stiintific al Conferintei anuale a retelei europene COST BM0701 - ATENS, decembrie 2009, Dublin.
9. Dr. M.L. Pascu, Comitetul Executiv al IALMS (International Academy of Lasers in Medicine and Surgery), cu sediul la Florenta , membru fondator al IALMS
10. Dr. Magdalena Nistor, Organizarea unui Workshop/Atelier stiintific Franco-Roman: „Growth and functional properties of thin films and nanostructures” in cadrul conferintei European Materials Research Society Spring Meeting (E-MRS 2009), Strasbourg, Franta (12 iunie 2009)