

# Joint Research Activities at the 3 MV Tandetron™ of IFIN-HH

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## Abstract

The Horia Hulubei National Institute for Research & Development in Physics and Nuclear Engineering (IFIN-HH) operates, among other facilities, a 3 MV Tandetron™ accelerator. Since commissioning in 2012, the 3 MV machine has emerged as an important tool to open new horizons in a variety of accelerator based research fields. After a brief description of the facility, several interesting highlights will be presented in the attempt to describe how the ions delivered by the accelerator in conjunction with our research capabilities can be used to probe the composition and obtain elemental depth profiles in the near-surface layer of solids. Finally, some prominent highlights will also be presented in order to prove that ion beams are very useful tool to study radiation damage processes, and create new functionalities in materials through implantation or creation of novel nanoscale structures.

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