Production of exotic radionuclides targets for nuclear astrophysics experiments

E.A. Maugeri, D. Schumann
Isotope and Target Chemistry Lab, Paul Scherrer Institut, Switzerland

This contribution aims to present the last developments, in term of design and manufacturing, of exotic radionuclides targetry, for nuclear astrophysics experiments. Particular emphasis is given to the description of the used preparation methods, i.e. electrodeposition/molecular plating, casting and ion implantation. Target characterization, in terms of deposited activities and spatial distributions, is addressed as well. In this context, two methods developed at the , Paul Scherrer Institut, based on alpha spectrometry coupled with the advanced alpha-spectroscopy simulation program, and gamma spectroscopy coupled with a screaming device and radiographic imaging, respectively, are presented.