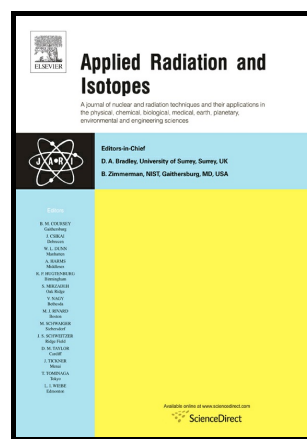


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Dibyasree Choudhury, Susanta Lahiri



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# Converter Target Chemistry - A new challenge to Radioanalytical Chemistry

Dibyasree Choudhury<sup>a</sup>, Susanta Lahiri<sup>a,b\*</sup>

<sup>a</sup>Saha Institute of Nuclear Physics, 1/AF Bidhannagar, Kolkata 700064, India

<sup>b</sup>Homi Bhabha National Institute, India

\*Corresponding author: susanta.lahiri@saha.ac.in

Abstract :

The 1-2 GeV proton induced spallation reaction on the high Z materials like Hg, or lead bismuth eutectic (LBE), popularly known as converter targets, will produce strong flux of fast neutrons which would further react with fissile materials to produce intense radioactive ion beam (RIB). LBE offers suitability for use as converters over Hg but it suffers from the demerit of radiotoxic polonium production. These targets may be viewed as a store house of clinically important and other exotic radionuclides. For application of those radionuclides, radiochemical separation from bulk target material is of utmost importance.

Keywords: Converter targets; spallation; radioactive ion beam; mercury; lead-bismuth eutectic.

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