

Preparation, test and commissioning of a molten salt target for noble gases production

A molten NaF-ZrF₄ salt target is produced and tested this year at ISOLDE aiming at collecting data in view of the production of the required rates of ¹⁸Ne for the beta beams project[1,2]. The details related to the design of units suited for molten salt target operation are introduced. The release properties of NaF-ZrF₄ associated to a VADIS ion-source are presented. The production, release of gaseous and volatile elements is discussed for F, Ne and Na isotopes.

References:

- [1] M. Benedikt et al., 'Conceptual design report for a Beta-Beam facility', Eur. Phys. J. A 47, 24 (2011)
- [2] T. Stora, Proceedings of the workshop European 'Strategy for Future Neutrino Physics', Geneva 2009, CERN-2010-003, 110

Primary author: DE MELO MENDONCA, Tania (IFIMUP and IN, University of Porto, Portugal)

Co-authors: Dr HEUER, Daniel (LPSC-IN2P3-CNRS/UJF/INPG, LPSC 53 Avenue des Martyrs, F-38026 Grenoble Cedex, France); Dr ALLIBERT, Michel (LPSC-IN2P3-CNRS/UJF/INPG, LPSC 53 Avenue des Martyrs, F-38026 Grenoble Cedex, France); Mr HODAK, Rastislav (Comenius University, SK-842 15 Bratislava, Slovakia); Dr STORA, Thierry (CERN); Dr GHETTA, Véronique (LPSC-IN2P3-CNRS/UJF/INPG, LPSC 53 Avenue des Martyrs, F-38026 Grenoble Cedex, France)

Presenter: DE MELO MENDONCA, Tania (IFIMUP and IN, University of Porto, Portugal)