Second Meeting on ”Targets for Nuclear Physics” within EURO-LABS

lundi 18 mai 2026 - mardi 19 mai 2026

GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt

Recueil des résumés

Contents

1

GSI tour

2

Tour to Target Laboratory

4

Latest news and projects from the GANIL Targets Laboratory

Auteur: Christelle STODEL[1]

[1] *GANIL/CNRS*

The growing number of experiments at GANIL has led to a significant increase in target demand—from approximately 50 units annually to an anticipated 500+. Moreover, the materials required for these targets have grown more complex, now including rare earth elements and natural uranium. This shift necessitates not only a larger quantity of targets but also enhanced quality, with stringent standards for homogeneity and purity. To meet these challenges, advanced equipment, controlled working environments, and rigorous validation protocols are essential to ensure reproducibility and precision.
In response to these evolving needs, GANIL has established PALAIS (Plateforme cibles pour GANIL/SPIRAL2), a dedicated target fabrication platform designed to serve an international user community. This platform, PALAIS specializes in producing a diverse range of high-quality targets in large quantities.
This report will provide an update on the GANIL Target Laboratory, which has recently undergone extensive renovation and modernization, including the acquisition of state-of-the-art equipment.

Title:

Latest news and projects from the GANIL Targets Laboratory

Authors:

Ch. Stodel, R. Rahali, G. Frémont, M. Bourges, F. Pérocheau

3

European solid target connection for nuclear astrophysics: the STAR task of ChETEC-INFRA

Auteur: Roberta Spartà[1]

[1] *Università degli Studi di Enna Kore and Laboratori Nazionali del Sud - INFN*

The joint work of European target laboratories in the ChETEC-INFRA project is presented, to face the new experimental challenges of nuclear astrophysics. In particular, results are presented on

innovative targets of 12,13C, 16O, and 19F that were produced, characterized, and, in some cases, tested under beam irradiation. STAR (Solid Targets for Astrophysics Research) is already acting to increase collaboration among laboratories, to achieve shared protocols for target production, and to offer a characterization service to the entire nuclear astrophysics community.

https://arxiv.org/abs/2504.16147

Title:

European solid target connection for nuclear astrophysics: the STAR task of ChETEC-INFRA

Authors:

Roberta Spartà, Alexandra Spiridon, Rosanna Depalo, Denise Piatti, Antonio Massara, Nicoleta Florea, Marcel Heine, Radu-Florin Andrei, Beyhan Bastin, Ion Burducea, Antonio Caciolli, Matteo Campostrini, Sandrine Courtin, Federico Ferraro, Giovanni Luca Guardo, Felix Heim, Decebal Iancu, Marco La Cognata, Livio Lamia, Gaetano Lanzalone, Eliana Masha, Paul Mereuta, Jean Nippert, Rosario Gianluca Pizzone, Giuseppe Gabriele Rapisarda, Maria Letizia Sergi, Jakub Skowronski, Dana State, Tamas Szucs, Livius Trache, Aurora Tumino