



ID de Contribution: 63

Type: Non spécifié

Lifetime measurement of astrophysically relevant 6.793 MeV state of ^{15}O

vendredi 13 septembre 2024 09:00 (15 minutes)

In this contribution, we will present the current state of the analysis of experiment 23.003, aimed at the measurement of the lifetime of the 6.793 MeV excited state of ^{15}O with sub-fs uncertainty. This experiment has strong astrophysical implications, as the lifetime we aim to measure strongly influences the value of the S-factor at Gamow-window energies for stars like our Sun. The experiment was performed using AGATA+SAURON (CD DSSSD detector) setup. Careful characterization of the targets employed was also performed using IBA techniques. At the moment much work was put into the optimization of the AGATA data processing and we are very close to get a first lifetime estimate.

Auteur principal: PILOTTO, Elia (University of Padova)

Co-auteurs: Dr SKOWRONSKY, Jakub (Istituto Nazionale di Fisica Nucleare - Sezione di Padova); Dr CACIOLLI, Antonio (Istituto Nazionale di Fisica Nucleare - Sezione di Padova); MENGONI, Daniele (University and INFN - Padova); GALTAROSSA, Franco (INFN Sezione di Padova); MENEGAZZO, Roberto (INFN - Sezione di Padova)

Orateur: PILOTTO, Elia (University of Padova)

Classification de Session: ACC