Contribution ID: **12** Type: **not specified**

AGATA@GANIL(E699) (ONLINE): Effects of Isospin Symmetry Breaking in the A=63 mirror nuclei

Thursday, 11 November 2021 12:40 (20 minutes)

This was the first experiment with NEDA and the full setup, and it suffered of some issues.
The (alpha+n) channel 63Ge has been searched carefully, so far without success. Many contaminating channels contribute to the background. In particular, we have found contaminant channels from the reaction induced by 40Ar, present in the beam producing residues with larger cross sections for neutron-evaporating channels. Oxygen contamination of the target is estimated to be 7% as well. Both contaminants, in the target and in the beam populate channel with higher cross section than 63Ge and therefore, so far it has not been possible to find its gamma lines. We remind that no gamma lines are known in this nucleus. In summary, the main goal of the experiment, 63Ge, is below the high background due to the contaminants in the beam and target.
However, some other channels are under analysis by students and researchers. In particular, we have found new transitions in the N=Z+1 65Ge and 64Ga.
The analysis of the angular distribution has been done for some channels. The analysis of the data from this experiment has been the subject of 3 bachelor thesis already finished and one in thesis is in progress. The lifetime of some states are being analysed in the framework of a PhD thesis.

Primary author: LENZI, Silvia Monica (Istituto Nazionale di Fisica Nucleare)

Presenter: CORTES, Martha Liliana (TU Darmstadt)

Session Classification: REPORTS on AGATA Experiments: SESSION 2