



Contribution ID: 64

Type: **Oral Presentation**

## Ordinary muon capture studies as an opportunity for DBD calculations

*Wednesday, May 29, 2019 11:00 AM (30 minutes)*

In the talk we would like to suggest the ideas about application of the ordinary muon capture studies to the DBD investigations. The series of measurements performed since 2002 at S $\mu$ S/PSI muon facility (Switzerland) and MUSIC/RCNP (Japan) is described, namely high precision gamma-spectroscopy with negative slow muons by means of HPGe –detectors. The targets were used in solid and gaseous form. The parameters of the beams allowed us to measure isotopically enriched targets of a small mass.

OMC could be a good supplementary tool for DBD matrix elements calculations since it represents quite well one branch of this decay. Also, with the huge transferred momentum (up 100 MeV) these reactions could excite high-lying level states of the intermediate nuclei. We also plan to discuss the possibilities to continue such investigations during the future experiments and the research of  $G_a$  suppression in the nuclei.

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**Session Classification:** Session (Chair: J. Suhonen)