



Contribution ID: 149

Type: Oral Presentations

## A project to develop a few kt GAGG(Ce) scintillator detector for low energy neutrino studies at the Baksan Neutrino Observatory

*Thursday, 7 September 2023 17:40 (20 minutes)*

We present a project to develop Gallium containing scintillator detector for low energy neutrino studies. GAGG(Ce) is a relatively new highly efficient fast inorganic scintillator. Recently the scintillator was proposed (P. Huber, 2022) as neutrino detector to test the well known and still not yet resolved Gallium anomaly. Following this idea we evaluate GAGG(Ce) scintillator as a possible material for low energy neutrino detection, not only to test Gallium anomaly but also as neutrinoless double beta-decay detector. The latter point will demand enrichment by  $^{160}\text{Gd}$  isotope. The first very preliminary R&D studies look very promising. Possibilities of using other Gallium containing scintillators for low energy neutrino studies are discussed too.

**Primary authors:** Dr LUBSANDORZHIEV, Sultim; Dr SIDORENKOV, Andrey (Institute for Nuclear Research of the Russian Academy of Sciences); Dr LUBSANDORZHIEV, Bayarto; Dr USHAKOV, Nikita (Institute for Nuclear Research of the Russian Academy of Sciences)

**Presenter:** Dr LUBSANDORZHIEV, Sultim

**Session Classification:** G4