

## CROSS-SECTIONS FOR THE SOLAR NEUTRINOS CAPTURE AND CHARGE-EXCHANGE RESONANCES

Investigation of charge-exchange resonances is important for calculating neutrino capturing cross-sections  $\sigma(E)$  of nuclei that can be used in neutrino detectors. Analog resonance, Gamow-Teller resonance (GTR) and three pigmy resonances are selected. Calculations were performed using the self-consistent theory of finite Fermi systems for Ga-71, Mo-98 and I-127. Even not accounting GTR gives a decrease of the  $\sigma(E)$  value more than 25%. Numbers of events in the interaction of solar neutrinos with these three nuclei calculated. It is shown that boron neutrinos make the main contribution and it is important to take into account all resonances.

### Session and Location

Wednesday Session, Poster Wall #108 (Auditorium Gallery Left)

### Poster included in proceedings:

yes

**Primary authors:** Mr OSIPENKO, Alexey (National Research Center "Kurchatov Institute", Russia); Mr FAZLI-AKHMETOV, Almaz (Moscow Institute of Physics and Technology, Institute for Nuclear Research of the Russian Academy of Sciences); Mr VYBOROV, Andrey (Master student of Moscow institute of physics and technology); Mr KOROTEEV, Gregory (Moscow Institute of Physics and Technology, Russia); Dr TIKHONOV, Victor (National Research Center "Kurchatov Institute", Russia); Dr LUTOSTANSKY, Yury (National Research Center "Kurchatov Institute", Russia)

**Presenters:** Mr FAZLI-AKHMETOV, Almaz (Moscow Institute of Physics and Technology, Institute for Nuclear Research of the Russian Academy of Sciences); Mr KOROTEEV, Gregory (Moscow Institute of Physics and Technology, Russia)

**Track Classification:** Poster (participating in poster prize competition)