Contribution ID: **326** Type: **Oral**

Measurement of gamma-rays emission cross-sections in neutron-induced reactions in SiO2 sample

Sunday, 3 December 2023 12:05 (15 minutes)

Silicon is one of the important elements used in modern technics. Information about gamma-rays spectrum of silicon can be used in elemental analysis of various objects. The usage of compact D-T neutron generators with an energy of 14.1 MeV makes it possible to create compact portable setups, as well as to implement the tagged neutrons method by detecting the accompanying alpha particle emitted in the $T(D,n)\alpha$ reaction. In this work gamma-rays cross-sections of (n,X) reactions induced by 14.1 MeV neutrons in SiO_2 sample were measured using new experimental setup in the framework of the TANGRA project experimental program.

Attendance Type

In-person

Primary authors: FILONCHIK, Polina (JINR, MIPT); FEDOROV, Nikita (JINR); GROZDANOV, Dimitar; Dr KOPATCH, Yuri; Dr TRETYAKOVA, Tatiana (JINR, MSU); Mr HRAMCO, Konstantin (JINR); Dr RUSKOV, Ivan (INRNE BAS)

Presenter: FILONCHIK, Polina (JINR, MIPT)

Session Classification: Session 14

Track Classification: Neutron Physics