

## **${}^6\text{Li}(d,\alpha){}^4\text{He}$ REACTION CROSS SECTION EVALUATION IN 0-20 MeV DEUTERON ENERGY RANGE**

*Wednesday, 13 July 2022 11:10 (20 minutes)*

New evaluation of  ${}^6\text{Li}(d,\alpha){}^4\text{He}$  reaction integral cross sections (fig.1) was performed at our SaBa library [1]. Our data obtained from measured differential cross-sections [2, 3] at 3.75-8 MeV deuteron energy were used for evaluation. Astrophysical S-factor evaluated value at zero deuteron energy was  $(24370\pm 269)$  MeV•mb.

1. A.G.Zvenigorodskij, V.A.Zherebtsov, L.M.Lazarev et al., The library of evaluated and experimental data on charged particles for fusion application, IAEA-NDS-191, 1999.

2. L.N. Generalov et al., Proc. LXIX Int. Conf. on Nucl.Spect. and Nucl.Struct."Nucleus-2019". Dubna. 116 (2019).

3. L.N. Generalov et al., Bull.Russ.Acad.Sci.Phys. 84, 1511 (2020).

### **The speaker is a student or young scientist**

Yes

### **Section**

1. Experimental and theoretical studies of nuclear reactions

**Primary authors:** Mr GENERALOV, L. N. (Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics); Mr ZHEREBTSOV, V. A. (Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics); Ms SELYANKINA, S. M. (Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics)

**Presenter:** Ms SELYANKINA, S. M. (Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics)

**Session Classification:** Poster session