

TRIGA Integral Activation of Mn Foils, Li₂O and LiF as Potential Tritium Production Monitors for Fusion Applications, I. Kodeli, V. Radulović, G. Veniger, D.Kavšek,(IJS Ljubljana, Slovenia) T. Kuc, M. Ciechanowski, W. Pohorecki (AGH, Krakow, Poland)

- **OBJECTIVE:** Direct Tritium production monitors by Integral activation experiment of Mn foils.
- Irradiation of Mn foils in a TRIGA thermal reactor to study the energy response of the $^{55}\text{Mn}(n,\gamma)^{56}\text{Mn}$ reaction. The latter reaction can be proposed as a tritium production monitor since its energy distribution of the response was found to be very similar to the sensitivity profile of the tritium production in ^6Li .
- In 2014 and 2017 two experimental campaigns were performed at the JSI TRIGA research reactor, consisting of irradiating Mn foils at different positions in the reactor. Irradiation in different neutron spectra is expected to provide complementary information for the data validation. Measured results were analysed using M/C code MCNP, including evaluation of uncertainties involved in the measurements and the calculations.

