
Contribution ID : **115** Type : **parallels**

# Influence of the isotropic prompt neutron emission on the average prompt neutron multiplicity and the total kinetic energy distribution as a function of fragment mass measured by the 2E technique for 235U(nth, f)

*Saturday, 17 December 2022 16:45 (15)*

In previous work, the measurement by the 2E technique of the average prompt neutron multiplicity as a function of the mass of the fragments from 235U(nth, f), under the hypothesis that the fragments lose kinetic energy only due to the drop of mass by neutron emission without recoil effect on the emitter fragment, was simulated. In the present work, recoil is added to the simulation algorithm. As far as the average prompt neutron multiplicity is concerned, the results of the present simulation are similar with the previous work results. However, some noticeable differences appear in the distributions of the yield, the total kinetic energy, and the standard deviations of the distribution of the total kinetic energy.

**Primary author(s) :** Prof. MONTOYA ZAVALETA, Modesto Edilberto (Universidad Nacional de Ingeniería); Mr OBREGON HILARIO, Andre (Universidad Nacional de Ingeniería); Mr PAUCAR QUISPE, Oliver (Universidad Nacional de Ingeneiría); Ms APONTE HITANI, Alexandra (Universidad Nacional de Ingeniería)

**Presenter(s) :** Prof. MONTOYA ZAVALETA, Modesto Edilberto (Universidad Nacional de Ingeniería)

**Session Classification :** parallels

**Track Classification :** Nuclear and High Energy Physics