

## Erratum: Measurement of $(n, \alpha)$ and $(n, 2n)$ reaction cross sections at a neutron energy of $14.92 \pm 0.02$ MeV for potassium and copper with uncertainty propagation, [A. Gandhi, Aman Sharma, Rebecca Pachuau *et al.*, Chin. Phys. C 46, 014002 (2022)]

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**Abstract:** Experimentally measured neutron activation cross sections are presented for the  $^{65}\text{Cu}(n, \alpha)^{62m}\text{Cu}$ ,  $^{41}\text{K}(n, \alpha)^{38}\text{Cl}$ , and  $^{65}\text{Cu}(n, 2n)^{64}\text{Cu}$  reactions with detailed uncertainty propagation. The neutron cross sections were measured at an incident energy of  $14.92 \pm 0.02$  MeV, and the neutrons were based on the  $t(d, n)\alpha$  fusion reaction. The  $^{27}\text{Al}(n, \alpha)^{24}\text{Na}$  reaction was used as a reference reaction for the normalization of the neutron flux. The pre-calibrated lead-shielded HPGe detector was used to detect the residues'  $\gamma$ -ray spectra. The data from the measured cross sections are compared to the previously measured cross sections from the EXFOR database, theoretically calculated cross sections using the TALYS and EMPIRE codes, and evaluated nuclear data.

**Keywords:** nuclear reactions,  $(n, \alpha)$  and  $(n, 2n)$  reactions,  $t(d, n)\alpha$  neutron source, uncertainty propagation, covariance analysis, TALYS-1.9 and EMPIRE-3.2 code

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After the publication of the paper, we found three corrections on pages 5 and 6. The first correction is on page 5, two lines above equation 4, the sentence "adding the matrix of 12 subsets (attributes) using.....", is incorrect and the correct one is "adding the matrix of 13 subsets (attributes) using.....".

The second is on page 5, in equation 6, there should be no square in the denominator. The correct form of Eq.

(6) should be

$$\text{Cor}(\sigma_{s_i}, \sigma_{s_j}) = \frac{\text{Cov}(\sigma_{s_i}, \sigma_{s_j})}{(\Delta\sigma_{s_i}) \times (\Delta\sigma_{s_j})} \quad (1)$$

The third is on page 6, in table 8, column 4, row 3; "0.1237" is incorrect and the correct value is "0.1252".

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