

**REACTIONS OF ISOTOPE  $^{60}\text{Co}$  FORMATION AT INTERACTION  
OF NEUTRONS WITH  $^{59}\text{Co}$ ,  $^{60}\text{Ni}$  AND  $^{63}\text{Cu}$   
(STATE-OF-THE-ART OF NEUTRON CROSS SECTIONS)**

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The state-of-the-art of neutron cross sections of three reactions resulting in formation of an isotope  $^{60}\text{Co}$  and commonly used as activation detectors at neutron flux and fluence measurements in wide neutron energy range has been analyzed. The analysis was conducted on the basis of information from the newest versions of the evaluated nuclear data libraries ENDF/B-VI, JEF-2. 2, JENDL-3.2, BROND-2, CENDL-2, international reactor dosimetry file IRDF-90 (version 2) and international library of experimental nuclear data CSISRS. A graphical cross section presentation of the reactions  $^{59}\text{Co}(n,\gamma)^{60}\text{Co}$ ,  $^{60}\text{Ni}(n,p)^{60}\text{Co}$  and  $^{63}\text{Cu}(n,\alpha)^{60}\text{Co}$  in the energy range up to 20 MeV, brief analysis of the available evaluated and experimental data, including results of integral experiments in standard neutron fields, provide condensed, but rather complete information on present day state of the reactions concerned. The up-to-date information on characteristics of  $^{60}\text{Co}$  decay and the reactions under consideration is also included.