

Abstract Submitted
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Measurement of Neutron Capture Cross Sections of Selenium Isotopes HOWARD D. DEARMON, KENNETH S. KRANE, Oregon State University
— There have been numerous measurements of the neutron capture cross sections of the stable Se isotopes, most dating from at least 40 years ago. The various results for individual isotopes are often in poor agreement with one another, but as yet there has been no attempt at a systematic measurement of the capture cross sections leading to all seven radioisotopes formed from capture by natural Se, which range in half-life from 17 s to 120 d. Using cadmium-shielded and unshielded irradiations of natural Se in various irradiation sites in OSU's TRIGA reactor, we have determined the thermal cross sections and resonance integrals for captures leading to $^{75m,77m,79m,81g,81m,83g,83m}\text{Se}$.

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