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## Radiative capture study of silver $\gamma$ -decay spectra using $\gamma\gamma$ -coincidences

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Determination of the accurate values for gamma transitions, level scheme, nuclear level density and radiative strength functions is crucial in low-energy nuclear physics. Accurate experimental values of those parameters are very important for both fundamental and applied research. The two-step gamma cascades method, involving the detection of gamma coincidences following thermal (cold) neutron capture, i.e. the  $(n_{th}, 2\gamma)$  reaction, is a highly suitable technique for obtaining spectroscopic data and insights into level density and radiative strength functions. The experiment using an enriched  $^{107}\text{Ag}$  target was conducted at the PGAA station of the Budapest Neutron Centre, Budapest, Hungary, with thermal neutron beam, 3 HPGe detectors with appropriate shielding and acquisition system for coincidence measurements. In this talk, a brief overview of the method, some of the previous results, as well as the spectroscopic results for  $^{108}\text{Ag}$  nuclei obtained through  $^{107}\text{Ag}(n_{th}, 2\gamma)$  reaction will be presented.

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