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Test of neutron- γ discrimination in AGATA

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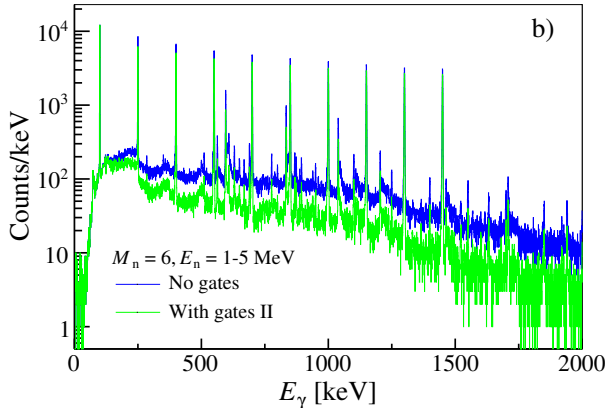
2009-03-30





Methods of neutron- γ discrimination in AGATA

Geant4 simulations + tracking (mgt) were used to develop methods for discrimination of γ rays due to inelastic neutron scattering in AGATA





AIM of experiment

The aim of the proposed experiment:

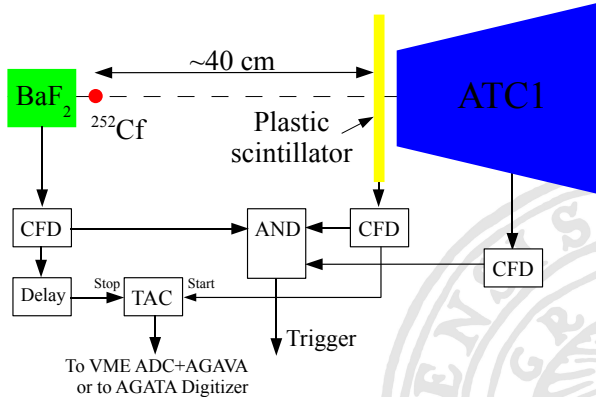
- Validate and improve the developed neutron- γ discrimination methods
- Investigate differences in pulse shapes between neutrons and γ rays in segmented HPGe detectors
- Develop and test the use of time-of-flight to discriminate neutrons and γ rays. How good time resolution can one achieve with segmented HPGe detectors and PSA?





Experiment

- Experimental setup



- Estimated event rate with a 1 MBq ^{252}Cf source: 10-100 Hz
- Estimated data taking time: not yet done