Basic techniques for gamma-ray measurements and ideas for laser derive gamma-ray sources

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Abstract

I talk about basic experimental techniques for gamma-rays in the energy region from 20 keV to 10 MeV. In general, the gamma-rays can be measured directly by germanium (Ge) semi-conductor detectors and scintillation detectors. I discuss the features for these detectors and basic property. As a new gamma-ray source, laser driven gamma-rays are expected to be developed. It has some excellent advantages of brightness and continues energy distribution compared with the laser Compton scattering gamma-rays. However, the common experimental techniques are not suitable for the laser driven gamma-rays. I discuss some proposals to measure laser driven gamma-rays.