Gamma intensities of 9.3h ^{127}Te

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In this work, γ-ray singles measurements were performed using HPGe spectrometer (198cm^3) with energy resolution of 1.87 keV for the 0. 662 MeV transitions of ^{137} Cs and a 671 - ORTEC amplifier in pile-up rejection mode. Sources of ^{147}Te were produced by thermal neutron irradiation, of tellurium powder enriched to 98.6% in ^{127}Te, in the IEA-R1 reactor at IPEN /CNEN-SP. The gamma-ray spectrum from about 70keV to 1.0MeV was recorded over more than 400 hours of live counting accumulated through three successive half-lives. The sources of ^{133}Ba, ^{137}Cs, ^{60}Co and ^{152}Eu were used for the energy and relative efficiency calibration of the detector. The intensities values obtained are relative to a value of 100 for the gamma intensity of the 417keV transition. These data have been determined with a better overall precision than previously [1].

[1] K. E. Apt, W. B. Walters e G. E. Gordon. Decay Schemes of 109 d ^{127m}Te and 9.4h ^{127g}Te, Nucl. Phys A152, 344, 1970.