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ABSTRACT

The energies and intensities of 20 gamma rays of Ir¹⁹² and 16 gamma rays of Ir¹⁹⁴ have been measured by studying their external conversion spectra with a high resolution beta-ray spectrometer. A Fermi analysis of the beta spectrum of Ir¹⁹⁴ reveals four components with the following end-points and intensities: 2236 keV (70 percent), 1905 keV (16 percent), 975 keV (9 percent) and 430 keV (2.8 percent). The observed beta and gamma radiations are consistently accounted for in terms of transitions to the following levels of Pt¹⁹⁴: 0.0, 328.1, 621, 1265, 1477, 1665, 1794, 1802, 1836, 1946, and 2048 keV. The Ir¹⁹⁴-Pt¹⁹⁴ energy difference is 2236±10 keV. The Ir¹⁹² gamma-ray energies are classified in terms of levels at 0.0, 283, 485, 690, and 1064 keV in Os¹⁹² and 0.0, 316, 612, 784, 921, 1155, 1201, and 1359 keV in Pt¹⁹². The results for Ir¹⁹² serve chiefly as confirmation

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