The curves were quite complex and the resolutions can only be approximate, especially in the case of the 12-hour activity. However, the electromagnetic radiations of each of the activities correspond rather closely to the expected L and K x-radiation of plutonium, with some additional gamma radiation. The electron activities in each of the isotopes are best explained as due to internal conversion of the gamma rays, and the respective energies are consistent with this interpretation. Relative intensities are limited in their accuracy to that of the values of the counting efficiency for each of the components. These values are not too well known for low energy electromagnetic radiation. The results obtained from several bombardments are given in Table 1. < Table 1

Measurements of the electron components were made using a strong, variable magnetic field to enable determination of values of $H\rho$. The device used was designed for high geometry and consequently the resolution was poor. However, the distribution observed for the low energy electrons of the 12 hour isotope was that characteristic of monoenergetic electrons of ca. 200 kev average energy. In all of the samples measured, the 1.2-1.3 Mev electrons were just detectable over the counter background, hence could not be studied with any degree of accuracy with the magnetic device.

Alpha particle decay measurements showed the presence of an alpha activity of 12-hour half-life. The branching ratio (alpha disintegrations per orbital electron capture) was found to be ca. 0.1 percent, corresponding to a partial alpha half-life of ca. 500 days. The alpha activity was always present in low intensity in the observed samples and no energy determinations were made.