^{90}Mo

Diamond announced the discovery of ^{90}Mo in "Molybdenum 90" in 1953 (1953Di08). The Harvard University synchrocyclotron accelerated protons to 55-60MeV which then bombarded niobium metal foils. The resulting activity was measured with a Geiger counter following chemical separation. "In summary, it may be said that from this work Mo^{90} appears to have (1) a half-life of 5.7±0.2 hours; (2) a disintegration scheme involving predominantly three gamma-rays, with energies of approximately 1.1, 0.24-0.26, 0.10-0.13 Mev, of which the second gamma-ray is electron converted to a small extent, and the third to a much larger degree; (3) positrons of roughly 1.4-MeV maximum energy (or of an energy slightly greater than the maximum energy of those from Nb^{90}, and a greater amount of electron capture relative to positron emission than is the case with Nb^{90}."

Adapted from reference (2012Pa21)

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Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"