Neutrons, discovered in 1932, are ideal projectiles for inducing nuclear reactions. Neutrons are often captured by stable nuclides with the increase of neutrons in these reactions produces radioactive materials, mostly beta emitters. Emission of light particles alpha, beta, and gamma in neutron-induced reactions are often delayed. Half-lives of nuclei produced and their decay energies are determined by experiments, and these data provide identification for the products.

Fermi, I. Curie, and F. Joliot on neutron induced reactions

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\text{^{19}F + ^1_0n \rightarrow ^{16}N + ^4_2\alpha}\]
\[
\text{^{10}F + ^1_0n \rightarrow ^{7}Li + ^4_2\alpha}\]
\[
\text{^{27}Al + ^1_0n \rightarrow ^{24}Mg + _{-1}\beta}\]

Contributors

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