

4.13.1: Lecture Demonstrations

Demonstrate the penetrating power of alpha, beta, and gamma radiation by holding paper, aluminum, and lead sheeting between the sources and Geiger counter.

It is not too difficult to demonstrate magnetic deflection of betas by collimating the betas from a Sr-90 source. The collimator is made by wrapping a 1" lead strip around a pencil so that a 1/4" hole is formed coaxially in a 1" diameter x 1" long lead cylinder. The source is taped to the collimator. A large (4000 gauss) horseshoe magnet placed in the electron beam deflects it from a Geiger counter.

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