

THE THICK-TARGET ${}^9\text{Be}(d,n)$ NEUTRON SPECTRA
FOR DEUTERON ENERGIES BETWEEN 2.6
AND 7.0-MeV*

by

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ABSTRACT

The measurement of the zero deg. neutron spectra and yields from deuterons incident on thick beryllium metal targets is described. ${}^{235}\text{U}$ and ${}^{238}\text{U}$ fission ion chambers were used as neutron detectors to span the neutron energy range above 0.05-MeV with a time resolution of < 3 nanosec. Measurements were made for incident deuteron energies from 2.6 to 7.0-MeV, at 0.4-MeV intervals, using time-of-flight techniques with flight paths of 2.7 and 6.8 meters. The results are presented in graphical form and in tables.

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