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Li2Se(Ag) A New Neutron Sensitive Scintillator

Tuesday 19 September 2017 10:10 (1 minute)

We report on the discovery of a new neutron sensitive scintillator. Single crystal Li2Se grown using a flux method and doped with silver was verified to scintillate with exposure to alpha particles (Am-241) and to neutrons (Cf-252). An estimate of the light yield is 2000 photons per neutron capture with a scintillation decay time constant of about 200nsec. Radioluminesce spectra show a strong peak centered near 410nm with a weak secondary peak near 560nm.

Has accepted

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