

STAND FOR TESTING NEUTRON SCINTILLATION DETECTORS

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Testing stand of plastic scintillation detectors of neutrons is described. Detectors are irradiated by the beam of 14 MeV neutrons produced in $d + t \rightarrow n + {}^4\text{He}$ reaction using the ING-07 neutron generator. The neutrons obtained pass through the forming shielding collimator made of borated polyethylene ($70 \times 90 \times 125 \text{ cm}^3$ with through slit of $0.5 \times 6 \text{ cm}^2$). Formation of narrow collimated beam allows one to study the spatial resolution of the neutron detectors (possibility of determination of the point of interaction of neutron with the detector substance) that is necessary for optimization of time resolution of detectors. The stand also allows to measure the absolute efficiency of detectors of various lengths at neutron energy of 14 MeV.