

**International Conference on Occupational Radiation Protection:
Strengthening Radiation Protection of Workers –Twenty Years of Progress
and the Way Forward**

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Research status and development of neutron detector

With the development of nuclear industry, neutron detection has been playing a more and more important role in radiation protection of workers. Scintillator detector, semiconductor detector and gas ionization detector are the most commonly used neutron detectors. Gas ionization detector has the characteristics of irradiation resistance, simple preparation and convenient use. Scintillation detector has the characteristics of high detection efficiency and high sensitivity. Semiconductor detectors are characterized by high energy resolution and small size. Due to the shortage of ^3He , scientists are actively carrying out new detectors including boron-coated straw tube neutron and lithium-doped scintillators to replace ^3He neutron detector. These new detectors will further advance radiation protection of workers.

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