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Simulation of neutron transport for the purpose of neutron filters optimization in the pulsed neutron logging apparatus

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Abstract

© 2006-2015 Asian Research Publishing Network (ARPN). Numerical modeling of thermal neutron filters, which are an integral part of the apparatus of pulsed neutron logging (PNL), has been carried out. Many models of filters were created. The neutrons slowing down and absorption processes in filters was analyzed. Optimum structure and dimensions of neutron filters was offered.

Keywords

Absorption of neutrons, Cadmium, Neutron filters, Nylon, Paraffin, Pulsed neutron logging (PNL), Slowing down