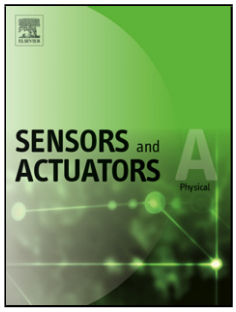

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A 4H Silicon Carbide based Fast-Neutron Detection System With a Neutron Threshold of 0.4 MeV

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Graphical abstract

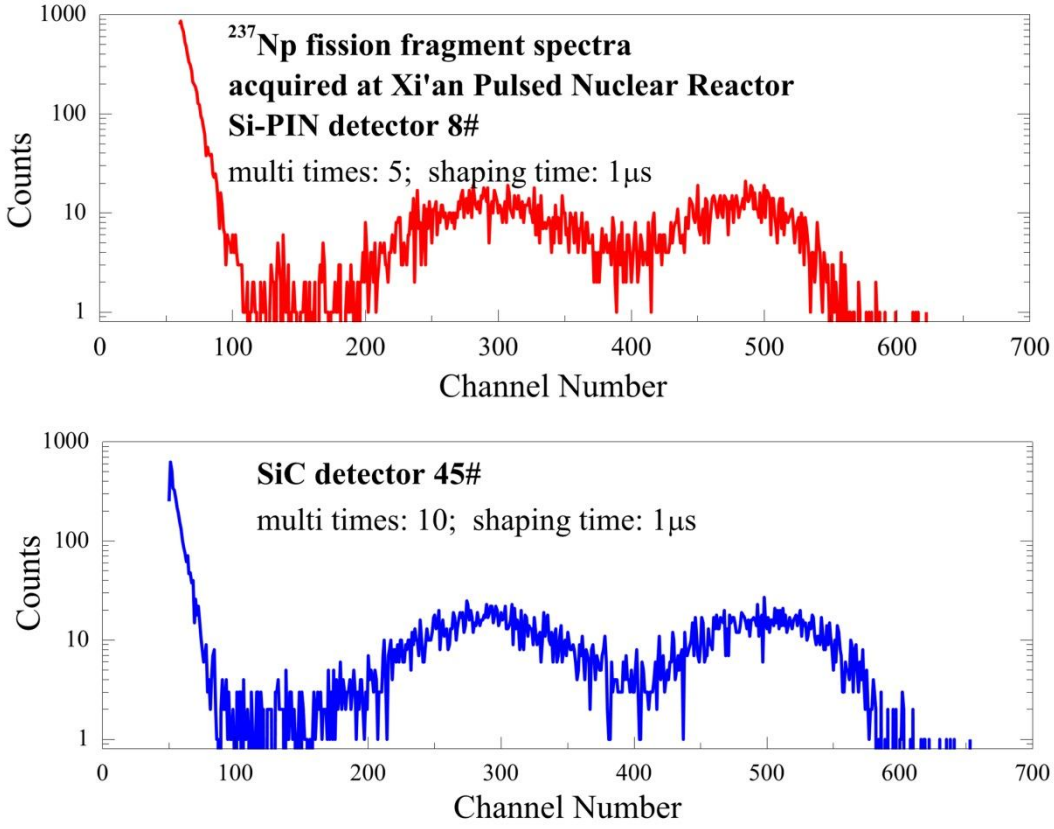

Fig.i ^{237}Np fission fragment counts as a function of channel number measured by a SiC detector (20mm×20 mm×20 μm) and a Si-PIN detector (Φ30 mm×260 μm) at reverse bias of 300 V and 500 V respectively at a radial channel on Xi'an Pulsed Reactor in NINT in China (Ortec 672 amplifiers are witha shaping time of 1 μs, gain of 5 times for Si-PIN detector and 10 times for SiC detector)