

Accepted Manuscript

Title: A 4H silicon carbide based fast-Neutron detection system with a neutron threshold of 0.4 MeV

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PII: S0924-4247(17)31672-2
DOI: <https://doi.org/10.1016/j.sna.2017.10.009>
Reference: SNA 10375

To appear in: *Sensors and Actuators A*

Received date: 16-7-2017
Revised date: 16-9-2017
Accepted date: 3-10-2017

Please cite this article as: { <https://doi.org/>

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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

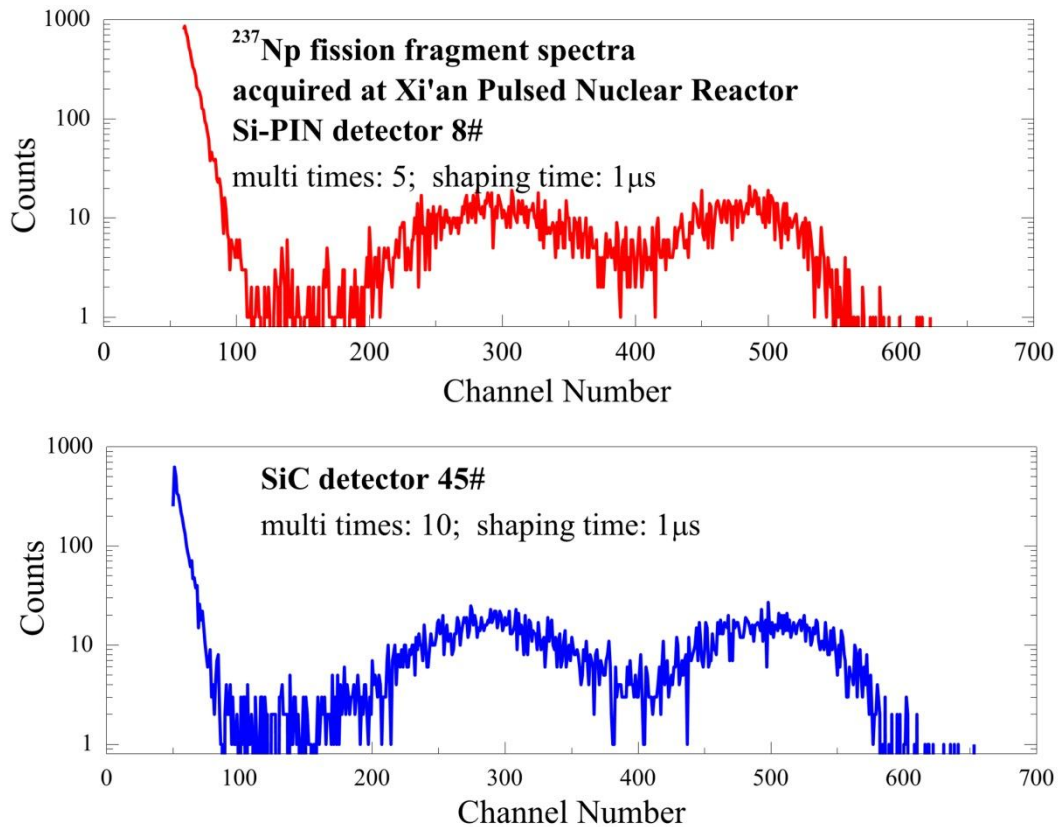


Fig.i ²³⁷Np fission fragment counts as a function of channel number measured by a SiC detector (20mm×20 mm×20 μm) and a Si-PIN detector (Φ30 mm×260 μm) at reverse bias of 300 V and 500 V respectively at a radial channel on Xi'an Pulsed Reactor in NINT in China (Ortec 672 amplifiers are with a shaping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

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