



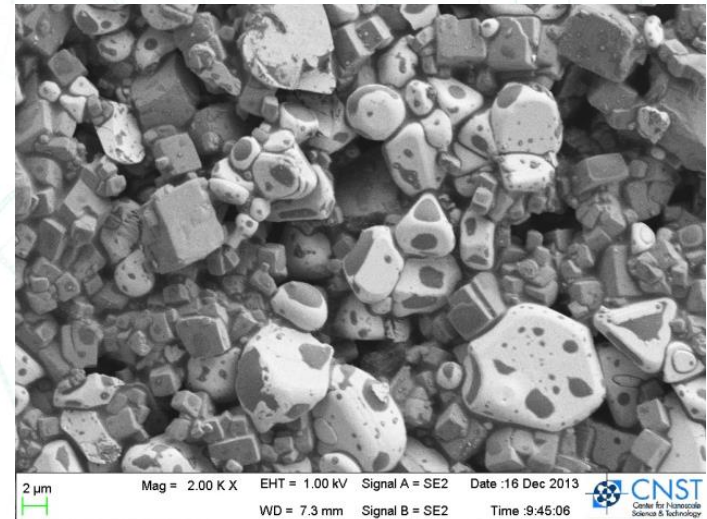
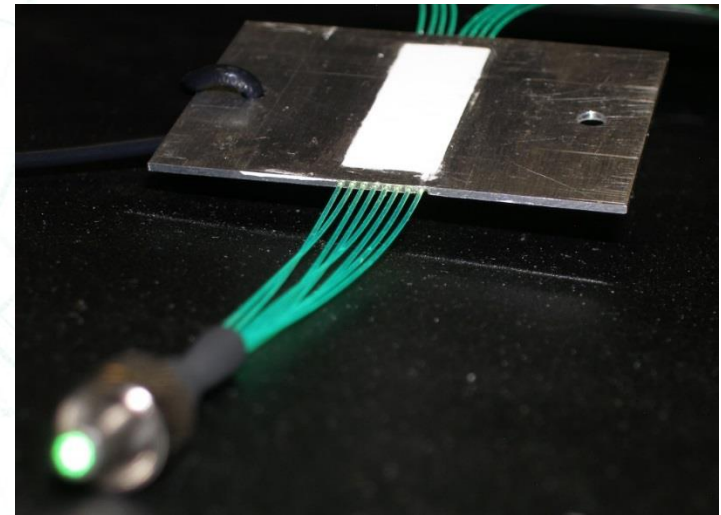
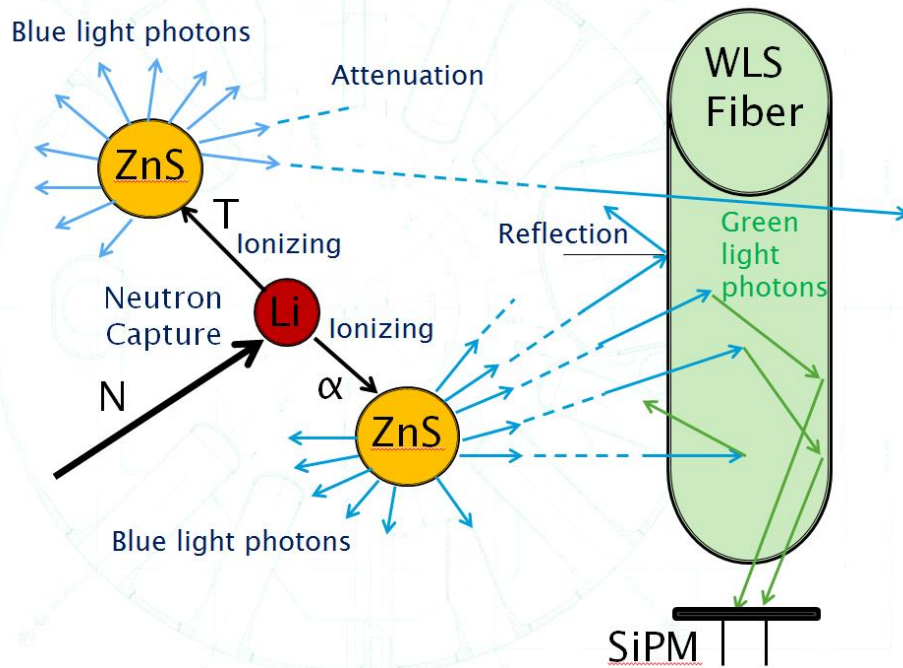
Signal Processing Scheme for a Low Cost LiF:ZnS(Ag) Neutron Detector with Silicon Photomultiplier

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NIST
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Standards and Technology
U.S. Department of Commerce

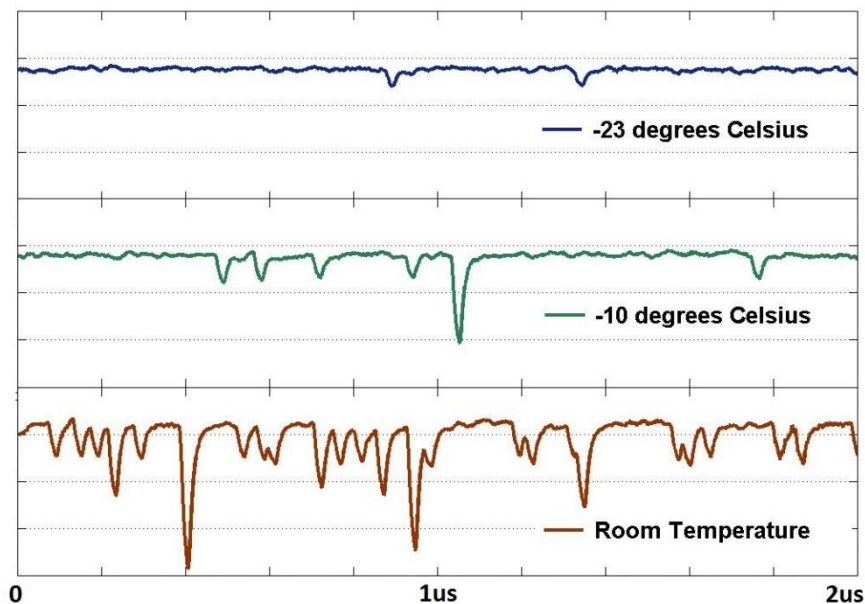
Detector Concept



Signal Processing Challenges

- ▶ SiPM non-linearities including Dark Noise, Crosstalk, and After Pulsing
- ▶ Wide Range of pulse sizes and shapes
- ▶ Tailored Pulse Shape Discrimination scheme

Dark Current Waveforms with Increasing Temperature



Characteristic Waveforms

