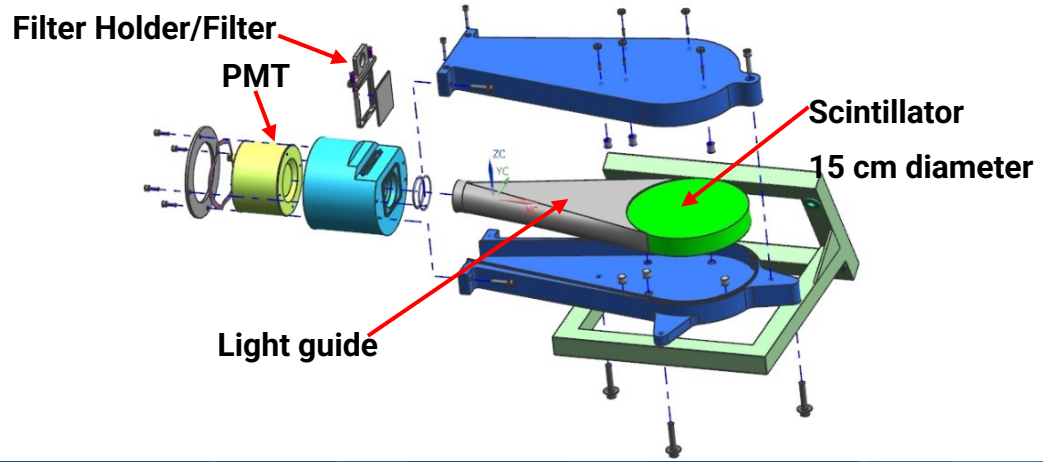
Neutron Diagnostics, Laboratory for Laser Energetics - Rochester, NY

LLE, University of Rochester

Three plastic scintillator based neutron detectors: 7x4, Large, Fast for increasing yields, Fast can determine neutron-averaged ion temperature.



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Key References/Links	https://doi.org/10.1063/1.1788875 https://doi.org/10.1063/1.5090785

Key Properties	
Physical Property to be Measured	Neutron yield and neutron-averaged ion temperature
Technique	Scintillation
Plasma parameter range	> 10^2 incident neutrons, >10^4 for ion-temperature measurements
Resolution (time)	0.1 ns
Resolution (space)	None
Resolution (energy)	0.1 keV
Interface	Data can be recorded from an oscilloscope 8-channel scope available
Suitable for MCF, ICF, MIF?	Any
Form factor: transport	Ships in Pelican cases 31.28 x 24.21 x 17.48 in
Form factor: operation	Detector(s) plus cables to digitizer, scope and HV supply
Set-up time	2+ hours
Minimum time for a measurement	Single shot
Other characteristics	Active areas: 7x4 248 cm^2, Large 177 cm^2, Fast 100 cm^2
Special considerations	Mounting the responsibility of the concept team