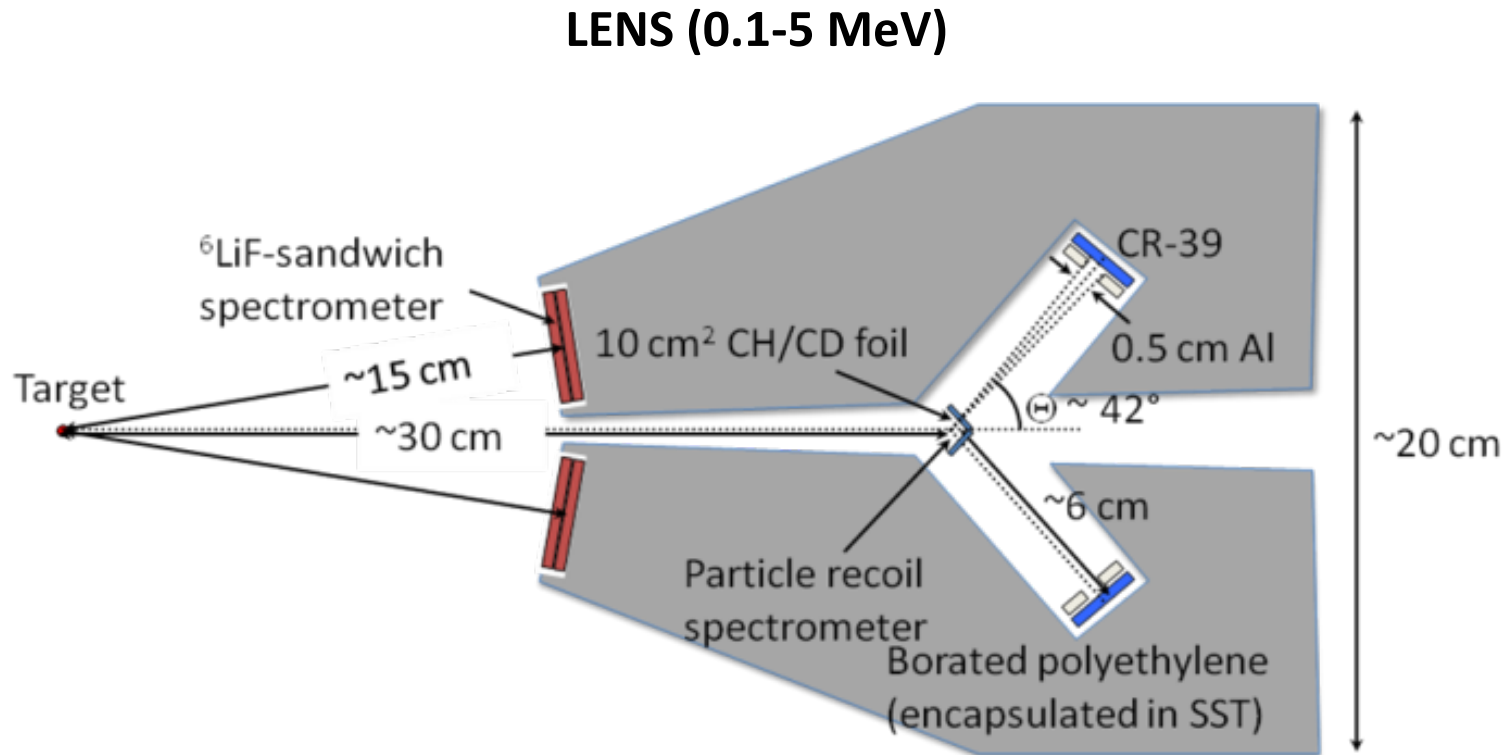


Update on the Low Energy Neutron Spectrometer (LENS) development

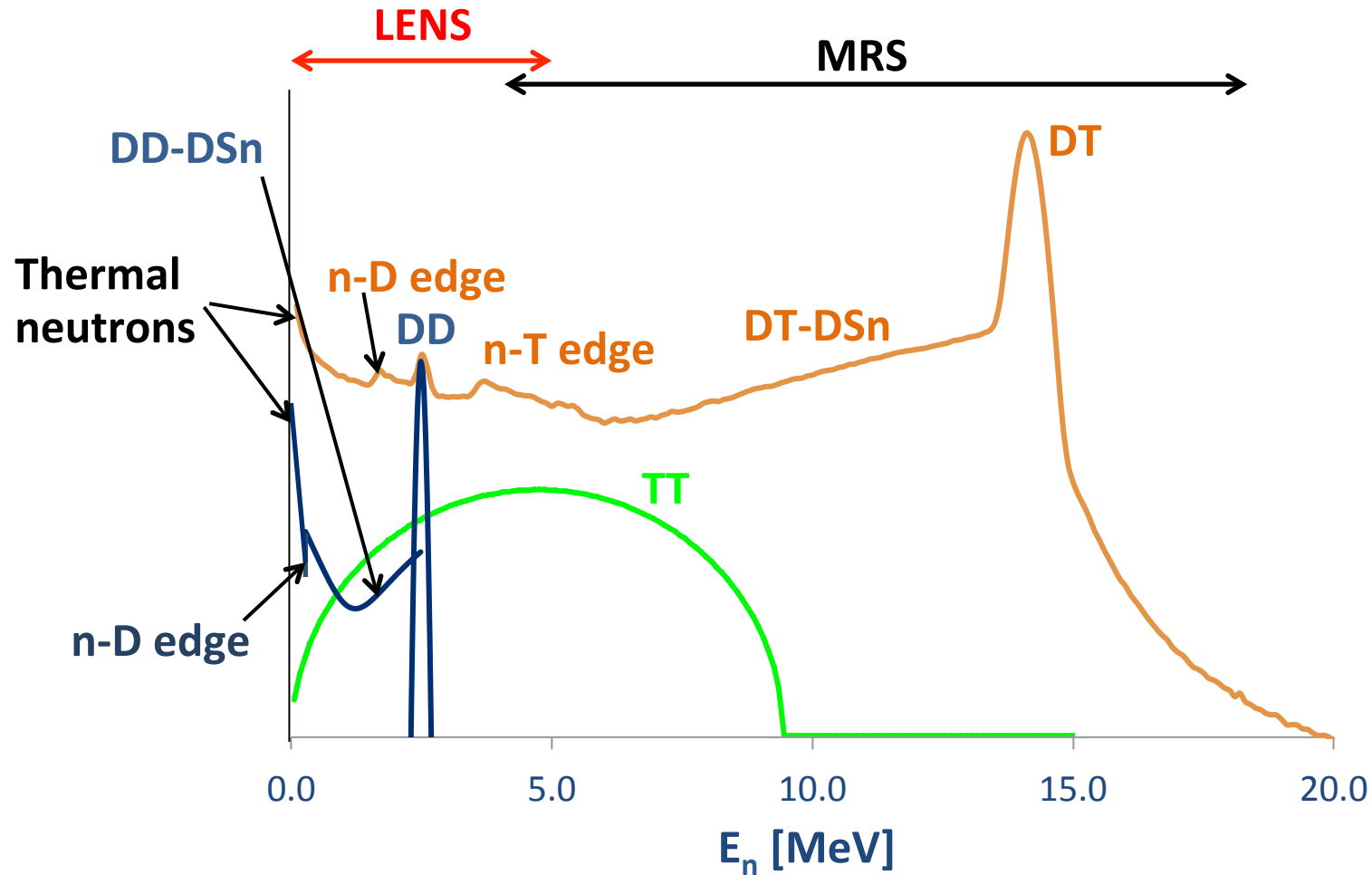


M. Gatu Johnson for the LENS team

OLUG meeting
Salt Lake City, UT
15 November, 2011

Motivation

The LENS will be designed to measure the detailed shape of the neutron spectrum (0.1 – 5 MeV) from D_2 , T_2 and DT implosions



The LENS will nicely complement existing diagnostics suite on OMEGA and the NIF by measuring the low-energy-neutron spectrum

Measurement of the neutron spectrum in the range 0.1 – 5 MeV:

Facility	Diagnostic	Thermal (<0.5MeV)	n-D edge (0.3 MeV)	n-D edge (1.5 MeV)	DD (2.5 MeV)	n-T edge (3.5 MeV)	TT (< 5MeV)
OMEGA	LENS	yes	yes	yes	yes	yes	yes
	nTOF	no	no	no	yes	yes*	no
	Indium	no	no	no	yes	no	no
	MRS	no	no	no	no	no	no
NIF	nTOF	no	no	no	yes	no	no
	Indium	no	no	no	yes	no	no
	MRS	no	no	no	no	no	no

* See C. Forrest et al., NO6.00004