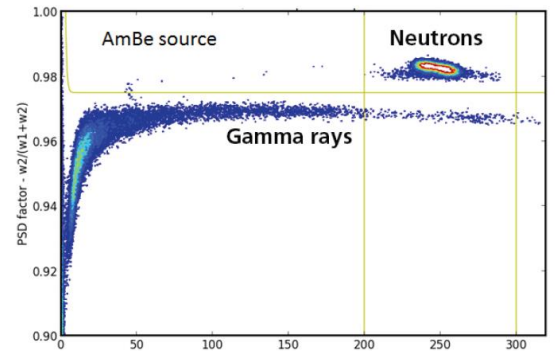


## CLYC:Ce

**Description:** Cs<sub>2</sub>LiYCl<sub>6</sub>:Ce Scintillation crystals are used for neutron and gamma detection. Because of the neutron interaction with Cl-35, CLYC can also be used for fast neutron detection.

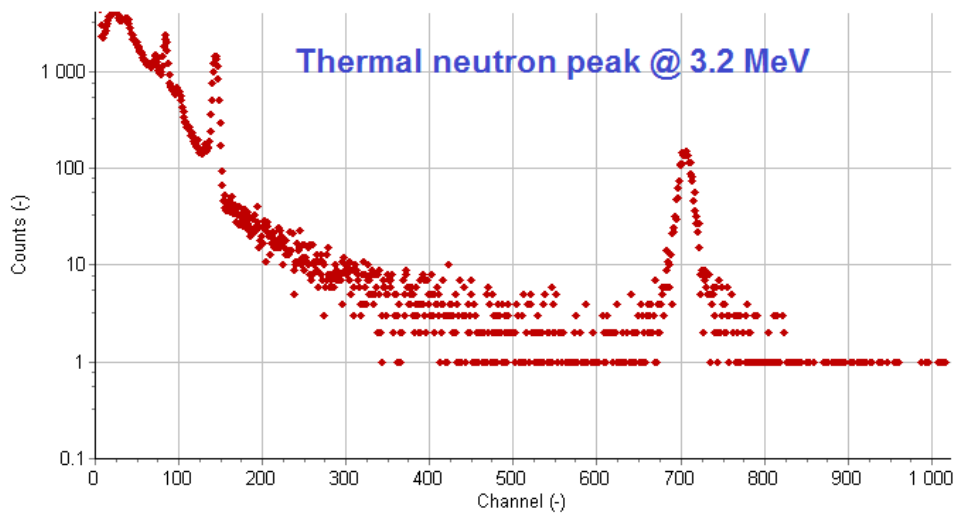
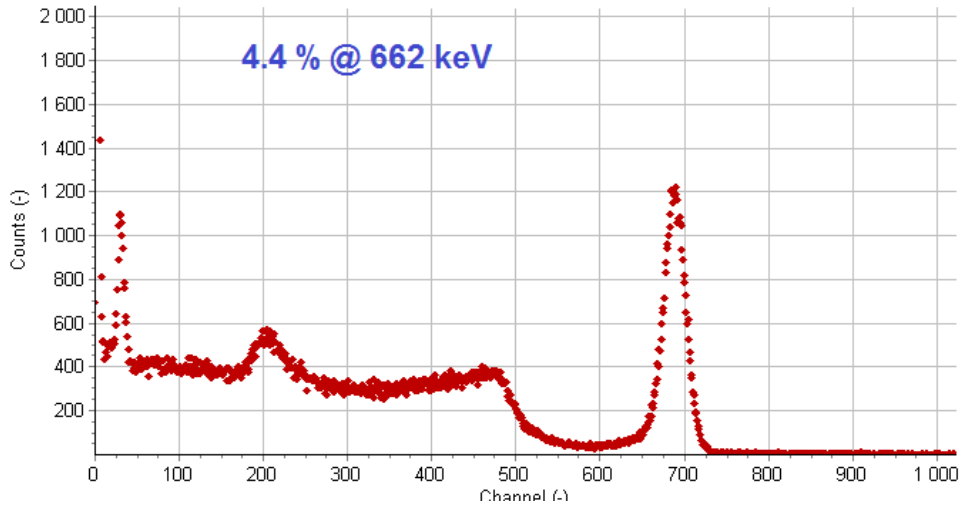
<b>Scintillation crystal</b>	:	CLYC (Cerium doped Caesium Lithium Yttrium Chloride)
<b>Melting point</b>	:	640 °C
<b>Hygroscopic</b>	:	Yes
<b>Li-6 enrichment</b>	:	96%
<b>Density</b>	:	3.31 g/cm <sup>3</sup>
<b>Refractive index</b>	:	1.81 (400 nm)
<b>Wavelength of Emission</b>	:	275 - 450 nm
<b>Max emission wavelength</b>	:	370 nm
<b>Decay time constants</b>	:	1 ns, 50 ns, 1000 ns
<b>Scintillation light yield</b>	:	approx.. 20.000 photons/MeV
<b>Pulse shape discrimination</b>	:	Well possible to discriminate neutrons from gammas



### Performance

<b>Energy resolution (662 keV)</b>	:	4.5 – 5.5% FWHM depending on geometry
<b>Thermal Neutron peak</b>	:	3.1 – 3.3 MeV

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