

Novel ^{37}Ar Calibration in XENON1T & XENONnT

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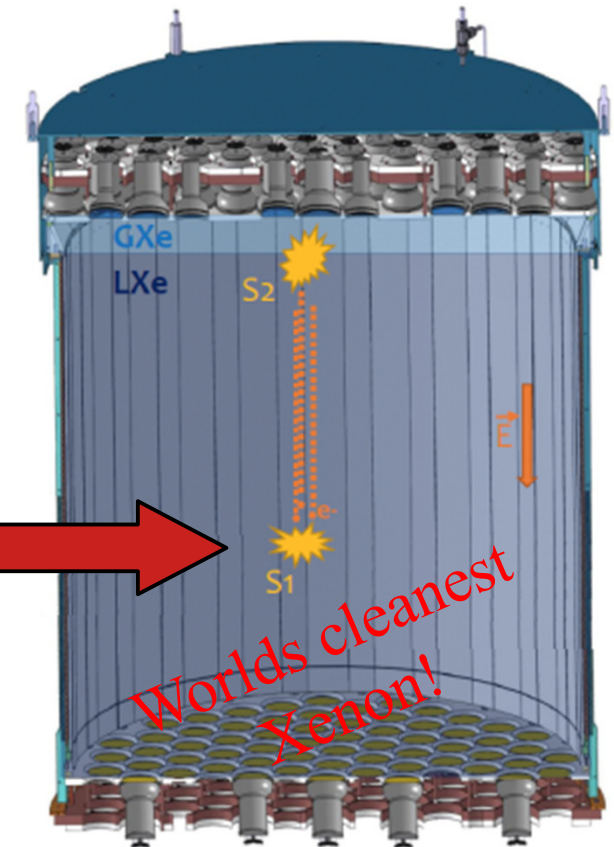
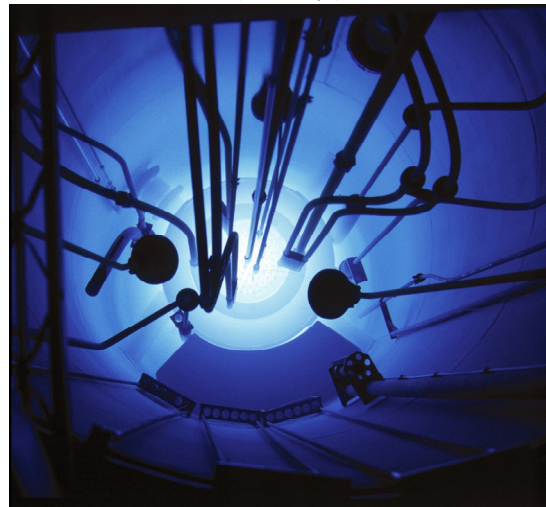


New very low energy, 2.82 keV and 0.27 keV,
calibration source for LXe TPCs.

Production in Mainz in the TRIGA reactor:



Enriched ^{36}Ar (> 99%)

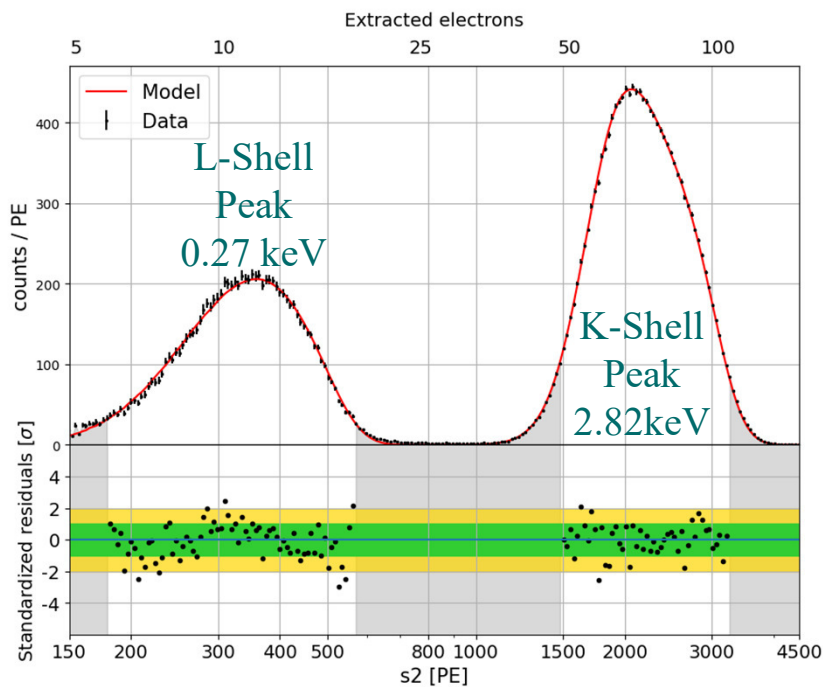


Cleaning up after calibration: Removal of ^{37}Ar via cryogenic distillation!

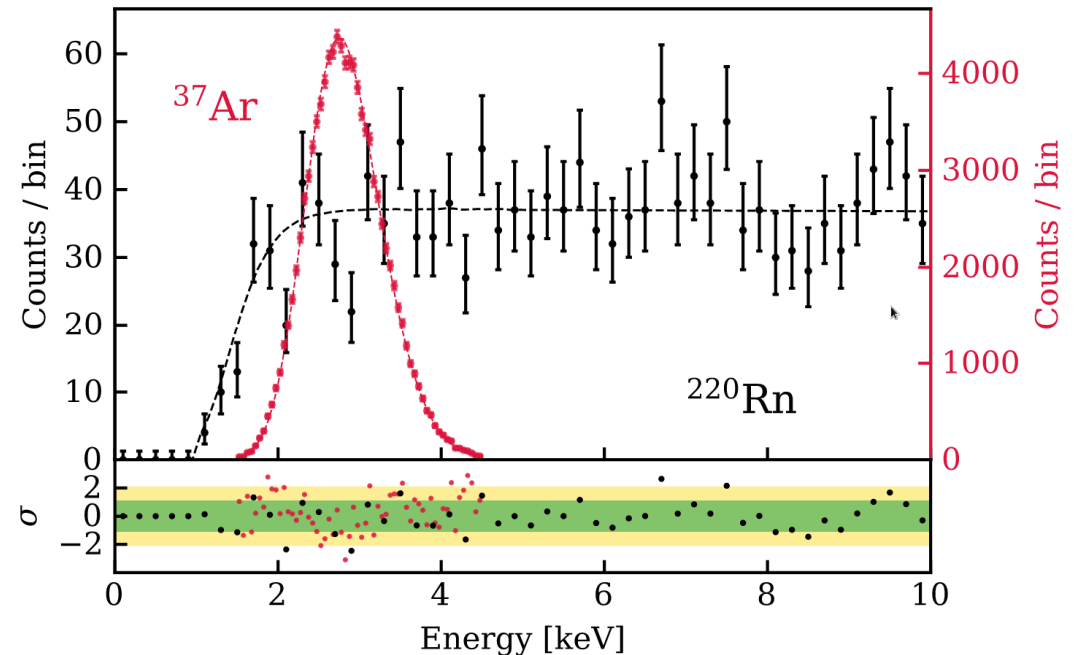
⇒ More in the paper!

Calibration performed in XENON1T & XENONnT
 \Rightarrow Both lines at 2.82 keV and 0.27 keV detected!

XENON1T:



XENONnT:



New results for photon- and electron-yields of ^{37}Ar .

\Rightarrow More in the paper!