

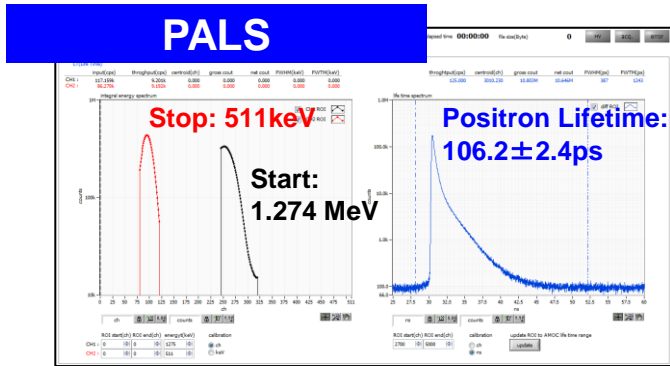
DPALMS-LCA

This is a device which integrates measuring equipment and power supply equipment necessary for positron annihilation method which can analyze molecular level nanoscale space structure. In **lifetime measurement**, high-speed pulse signals from two BaF₂ scintillators are captured by 3 Gbps board to calculate lifetime. In **CDB measurement**, coincidence is taken from two HPGe semiconductor detectors, and a two-dimensional histogram is generated from the crest value. Furthermore, **AMOC measurement** that correlate the lifetime and momentum are also realized by combining these modules.

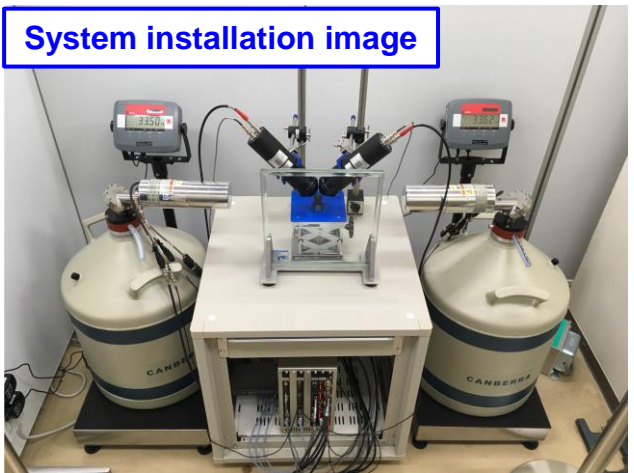
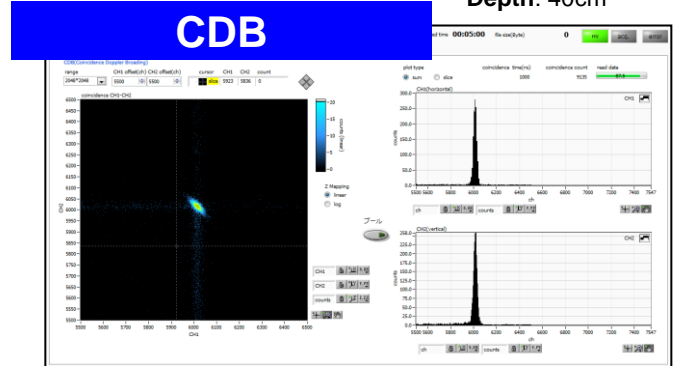
Function	- LIFETIME Measurement - Single spectrum measurement, Doppler spread measurement - AMOC measurement
ADC	2 channel 3 Gbps 8-bit for LIFETIME 2 channel 100 Msps 14-bit for CDB
Time resolution	FWHM < 170 ps *Depends on the detector
Energy resolution	1.69 keV (1.33 MeV @ ⁶⁰ Co)
LIFETIME	Positron Lifetime: 106.2 ± 2.4 ps , Standard material stainless steel o-Ps Lifetime: 1.62 ± 0.05 ns , Standard material quartz glass (Silica) Long LIFETIME measurement support Measurement time range: < 1100 ns (8192 ch.)
High Voltage Power Supply	2CH: +5000 V / CH for Ge semiconductor detectors *With preamplifier power supply 2CH: -4000 V / CH for photomultiplier tubes
Communication I/F	Ethernet (TCP/IP)
Software	Data acquisition and device control application software



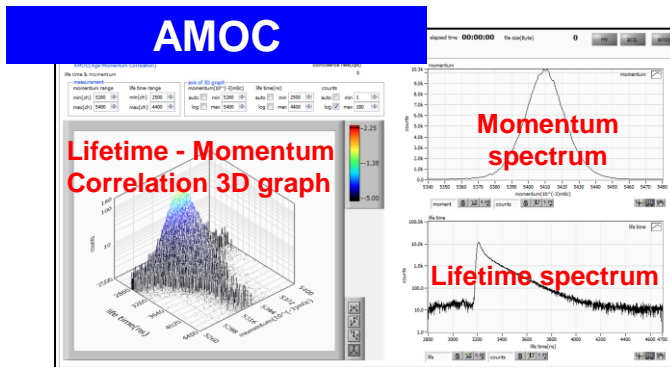
Height: 32 cm,
Width: 17 cm,
Depth: 40cm



Radiation source: ²²Na, Sample: **Polycarbonate**



*Images is for illustration purpose.
*Please note that contents may change without prior notice.



Sample: **Silica**

