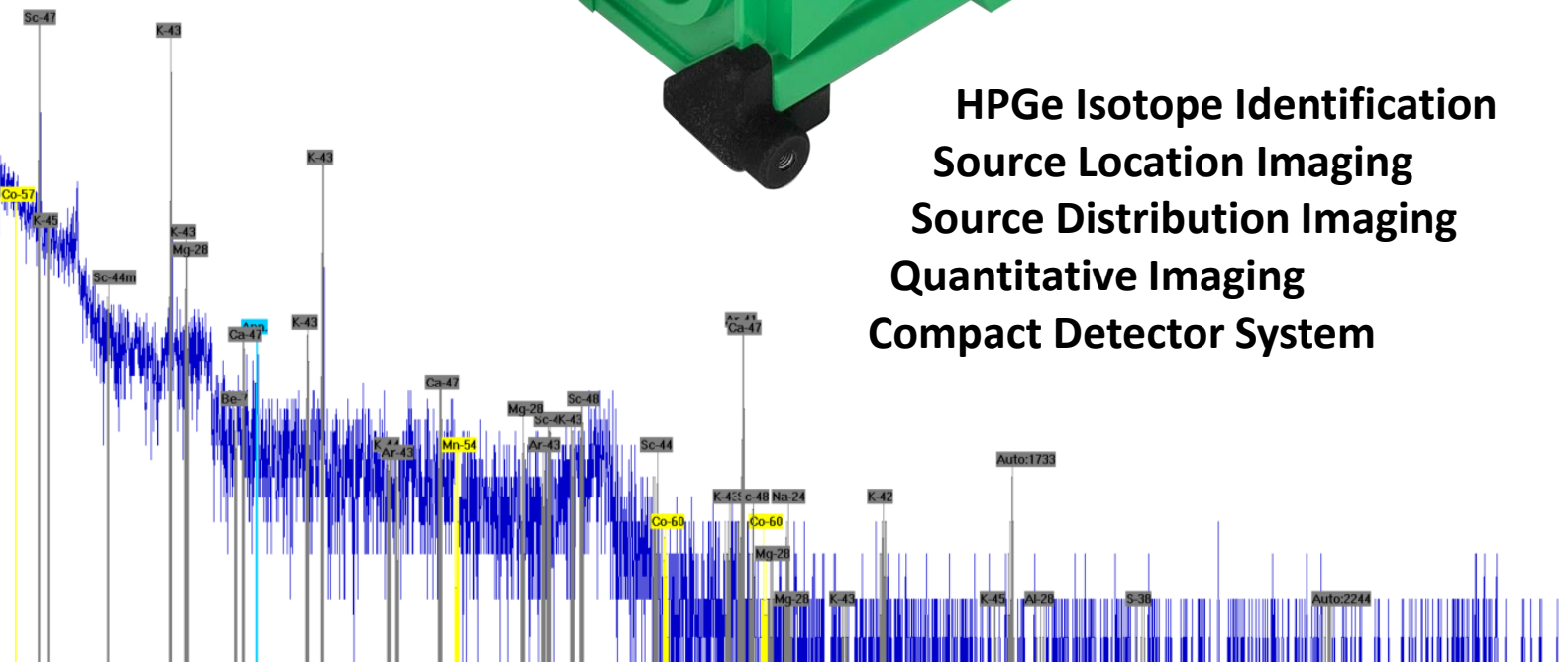


# NP Imager

Nuclear Physics – Radiochemistry Imaging Spectrometer



**HPGe Isotope Identification  
Source Location Imaging  
Source Distribution Imaging  
Quantitative Imaging  
Compact Detector System**



# NP Imager

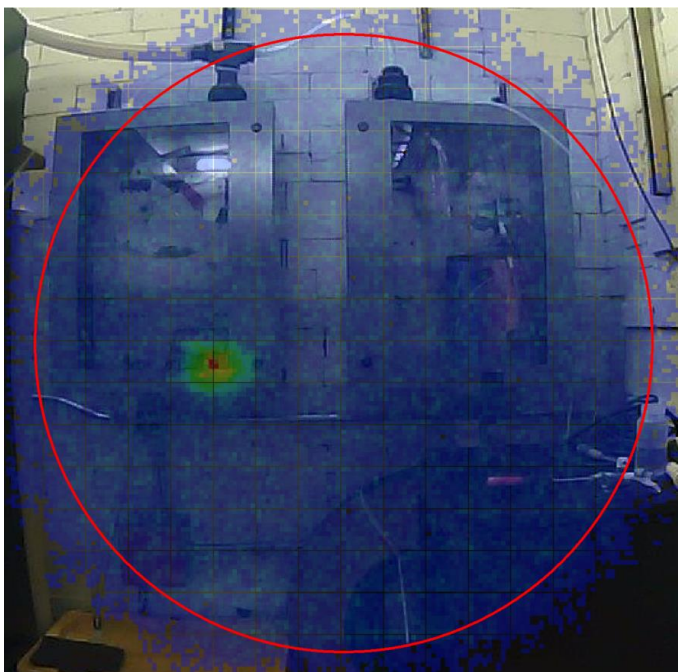


NP Imager Specifications:	
Weight (Detector):	15 lbs. (6.8 kg)
Dimensions (Detector):	10.5" x 8.0" x 5.5" (26 cm x 20 cm x 14 cm)
Battery life:	3 hrs internal (hot swappable), 6-8 hrs external
Power supply:	100-240 VAC, 50-60 Hz
User maintenance:	None
Energy resolution:	FWHM < 2.1 keV at 662 keV
Gamma-ray Compton imaging field of view:	4 $\pi$ (360°)
Optical camera field of view:	2 $\pi$ (180°)
Pinhole imaging field of view:	up to 60° (depends on Zoomfactor)
Zoomfactor Gamma-ray Image Magnification	x1 - x6
Imaging Range:	(10 cm - 50+ meters)
At 10 $\mu$ Ci $^{137}$ Cs at 1 meter (3.3 $\mu$ R/hr, 33 nSv/hr)	
ID time (spectroscopy):	3.7 sec +/- 1 sec (662 keV, 8 $\sigma$ )
Location (imaging) time:	30 sec +/- 13 sec (Compton image)
Exposure rate capacity:	200 kcps (~10% Dead time in 15 mR/hr $^{60}$ Co)
Energy range spectroscopy (16k ch):	30 keV - 3 MeV (12 MeV option)
Energy range Compton Imaging:	150 keV - 3 MeV
Energy range Pinhole Zoomfactor Imaging:	30 keV - 662 keV
Isotope Library:	400 isotopes (Auto detect or user selected)
Isotope Identification:	37 frequently encountered isotopes
Isotope Categories:	SNM, NORM, IND, MED
HPGe detector crystal dimensions:	90-mm diameter, 11-mm thick
Active detector volume / area:	67 cm <sup>3</sup> / 61 cm <sup>2</sup>
Cool-down time:	4 hours
Detector startup time:	2 minutes



Heavy Duty Imaging Gantry

Tablet or Laptop operation



Radioisotope Harvesting Image



Pinhole Imaging Aperture



2590 300 W-hr External battery