Novo Nuclear

EPR Dose Pellets (Alanine-based)

Alanine-based EPR Dose Pellets are passive dosimeters used for accurate measurement of absorbed radiation dose using Electron Paramagnetic Resonance (EPR) spectroscopy. The pellets are manufactured under controlled conditions to ensure reproducibility, stability, and linear dose response.

Parameter	Specification
Dosimetric Material	L-α-Alanine (high purity)
Measurement Technique	Electron Paramagnetic Resonance (EPR)
Pellet Shape	Cylindrical
Pellet Diameter	4.5 – 5.0 mm
Pellet Thickness	2.5 – 3.0 mm
Pellet Mass	65 – 75 mg
Dose Range	0.1 Gy to 100 kGy
Dose Response	Linear over specified dose range
Radiation Types	Gamma rays, X-rays, Electron beams
Signal Stability	Long-term stable at room temperature
Reproducibility	≤ ±2 % (batch-to-batch)
Shelf Life	≥ 5 years

Applications: Radiation processing, medical and industrial dosimetry, accident dosimetry, retrospective dose assessment.

Manufacturer: Novo Nuclear
Website: https://novonuclear.com