

Post Irradiation Examination of Radioactive Materials at CANS

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Hot-cell Facilities:

Five hot cells for receiving, CNC machining, materialographic sample preparation, opto-digital microscopy inspection, and hydraulic unit for mechanical testing.

Dual –beam System: FIB & SEM

1. High resolution image acquisition of surface topography
2. Electron probe microanalysis (EPMA) for elemental analysis
3. Electron Backscatter diffraction (EBSD) provides crystallographic data
4. FIB milling and gas assisted deposition
5. FIB site-specific sample preparation (TEM, EBSD, and APT samples)
6. FIB 3D Tomography

Positron Annihilation Spectroscopy: characterization of voids and defects in solids

Atom Probe Tomography (APT): compositional analysis at atomic resolution