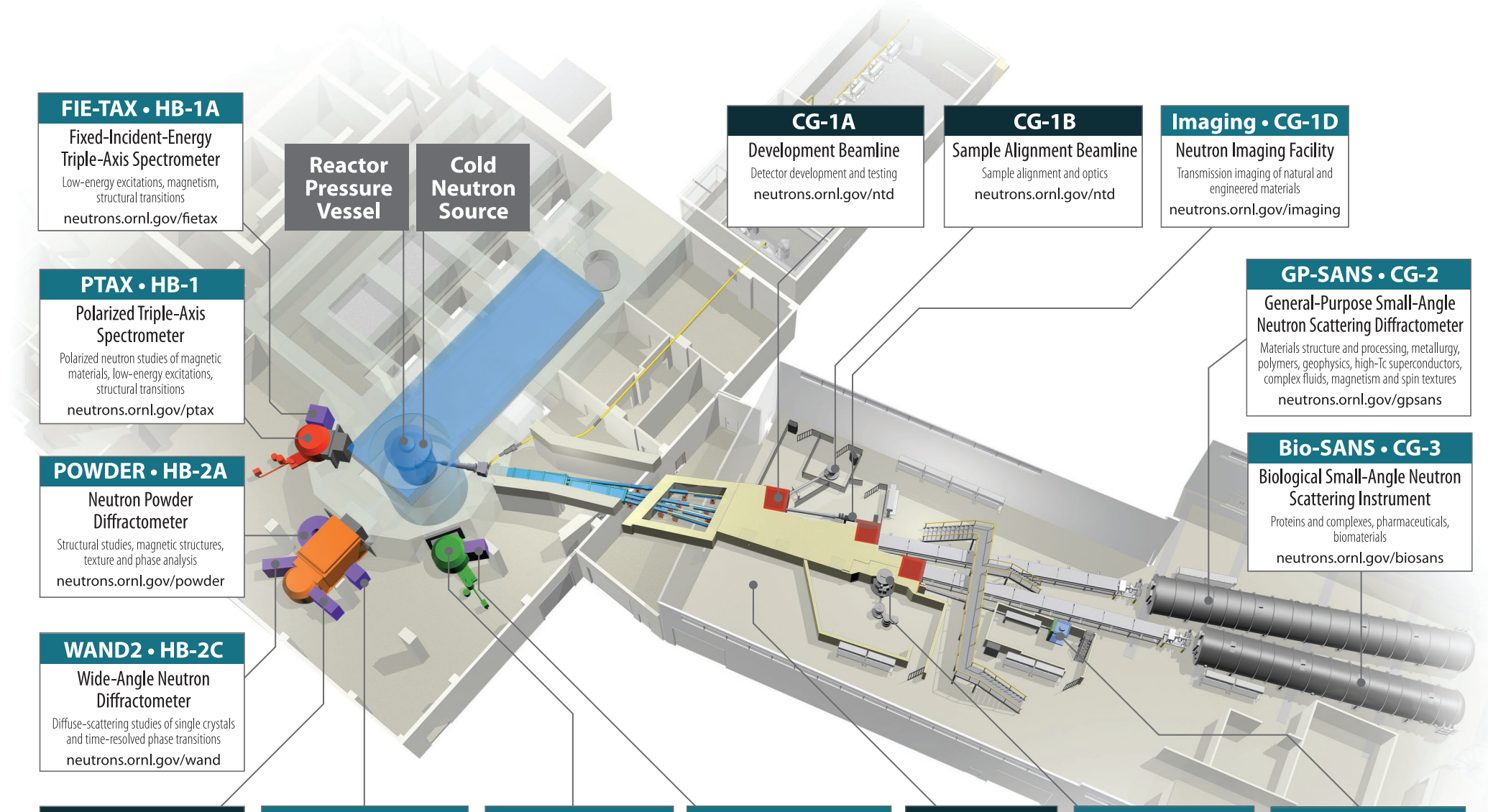
OAK RIDGE National Laboratory | HIGH FLUX ISOTOPE REACTOR

The United States' highest flux reactor-based neutron source

NEUTRONS.ORNL.GOV



FIE-TAX • HB-1A
Fixed-Incident-Energy Triple-Axis Spectrometer
Low-energy excitations, magnetism, structural transitions
neutrons.ornl.gov/fietax

PTAX • HB-1
Polarized Triple-Axis Spectrometer
Polarized neutron studies of magnetic materials, low-energy excitations, structural transitions
neutrons.ornl.gov/ptax

POWDER • HB-2A
Neutron Powder Diffractometer
Structural studies, magnetic structures, texture and phase analysis
neutrons.ornl.gov/powder

WAND2 • HB-2C
Wide-Angle Neutron Diffractometer
Diffuse-scattering studies of single crystals and time-resolved phase transitions
neutrons.ornl.gov/wand

CG-1A
Development Beamline
Detector development and testing
neutrons.ornl.gov/ntd

CG-1B
Sample Alignment Beamline
Sample alignment and optics
neutrons.ornl.gov/ntd

Imaging • CG-1D
Neutron Imaging Facility
Transmission imaging of natural and engineered materials
neutrons.ornl.gov/imaging

GP-SANS • CG-2
General-Purpose Small-Angle Neutron Scattering Diffractometer
Materials structure and processing, metallurgy, polymers, geophysics, high-Tc superconductors, complex fluids, magnetism and spin textures
neutrons.ornl.gov/gpsans

Bio-SANS • CG-3
Biological Small-Angle Neutron Scattering Instrument
Proteins and complexes, pharmaceuticals, biomaterials
neutrons.ornl.gov/biosans

HB-2D
Polarized Neutron Development Station
Development of new components and techniques for utilizing polarized neutrons
neutrons.ornl.gov/ntd

HIDRA• HB-2B
High Intensity Diffractometer for Residual stress Analysis
Strain, texture, and phase mapping in engineering materials
neutrons.ornl.gov/hidra

TAX • HB-3
Triple-Axis Spectrometer
Medium- and high-resolution inelastic scattering at thermal energies
neutrons.ornl.gov/tax

DEMAND • HB-3A
Dimensional Extreme Magnetic Neutron Diffractometer
Small unit-cell nuclear & magnetic structural studies
neutrons.ornl.gov/demand

CG-4B
Polarized Neutron Development Station
Development of larmor precession techniques
neutrons.ornl.gov/ntd

CTAX • CG-4C
Cold Neutron Triple-Axis Spectrometer
High-resolution inelastic scattering at cold neutron energies
neutrons.ornl.gov/ctax

IMAGINE • CG-4D
Laue Diffractometer
Atomic resolution structures in biology, chemistry and complex materials
neutrons.ornl.gov/imagine

22-G00105/jdh

Operating instrument in user program
Operating development beamline

The High Flux Isotope Reactor is a facility of Oak Ridge National Laboratory, managed by UT-Battelle for the US Department of Energy.