

# High Flux Isotope Reactor at Oak Ridge National Laboratory



The United States' highest flux reactor-based source of neutrons for condensed matter research

**Fixed-Incident-Energy  
Triple-Axis  
Spectrometer •  
HB-1A**

Low-energy excitations,  
magnetism, structural  
transitions

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**Polarized Triple Axis  
Spectrometer •  
HB-1**

Polarized neutron studies of  
magnetic materials, low-energy  
excitations, structural transitions

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**Neutron Powder  
Diffractometer •  
HB-2A**

Structural studies, magnetic  
structures, texture and phase  
analysis

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**US/Japan WAND •  
HB-2C**

Diffuse-scattering studies of  
single crystals and time-resolved  
phase transitions

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**Future Development •  
HB-2D**

**Neutron Residual Stress Mapping  
Facility • HB-2B**

Strain and phase mapping in  
engineering materials

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**Triple-Axis  
Spectrometer •  
HB-3**

Medium- and high-resolution  
inelastic scattering at  
thermal energies

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**Four-Circle  
Diffractometer •  
HB-3A**

Small unit-cell crystal  
structural studies,  
particularly H-bonding

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**Future  
Development •  
CG-4A**

**Future  
Development •  
CG-4B**

**US/Japan Cold  
Neutron  
Triple-Axis  
Spectrometer •  
CG-4C (2010\*)**

High-resolution inelastic  
scattering at cold  
neutron energies

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**Future  
Development •  
CG-4D**

**Cold Neutron  
Source**

**General-Purpose SANS •  
CG-2**

Polymer blends, flux lattices in high-Tc  
materials, soft materials processing  
and structure

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**Future Development •  
CG-1**

**Bio-SANS • CG-3**

Proteins and complexes,  
pharmaceuticals,  
biomaterials

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\* Scheduled commissioning date.

**LEGEND**

- Installed, commissioning, or operating
- In design or construction
- Under consideration

