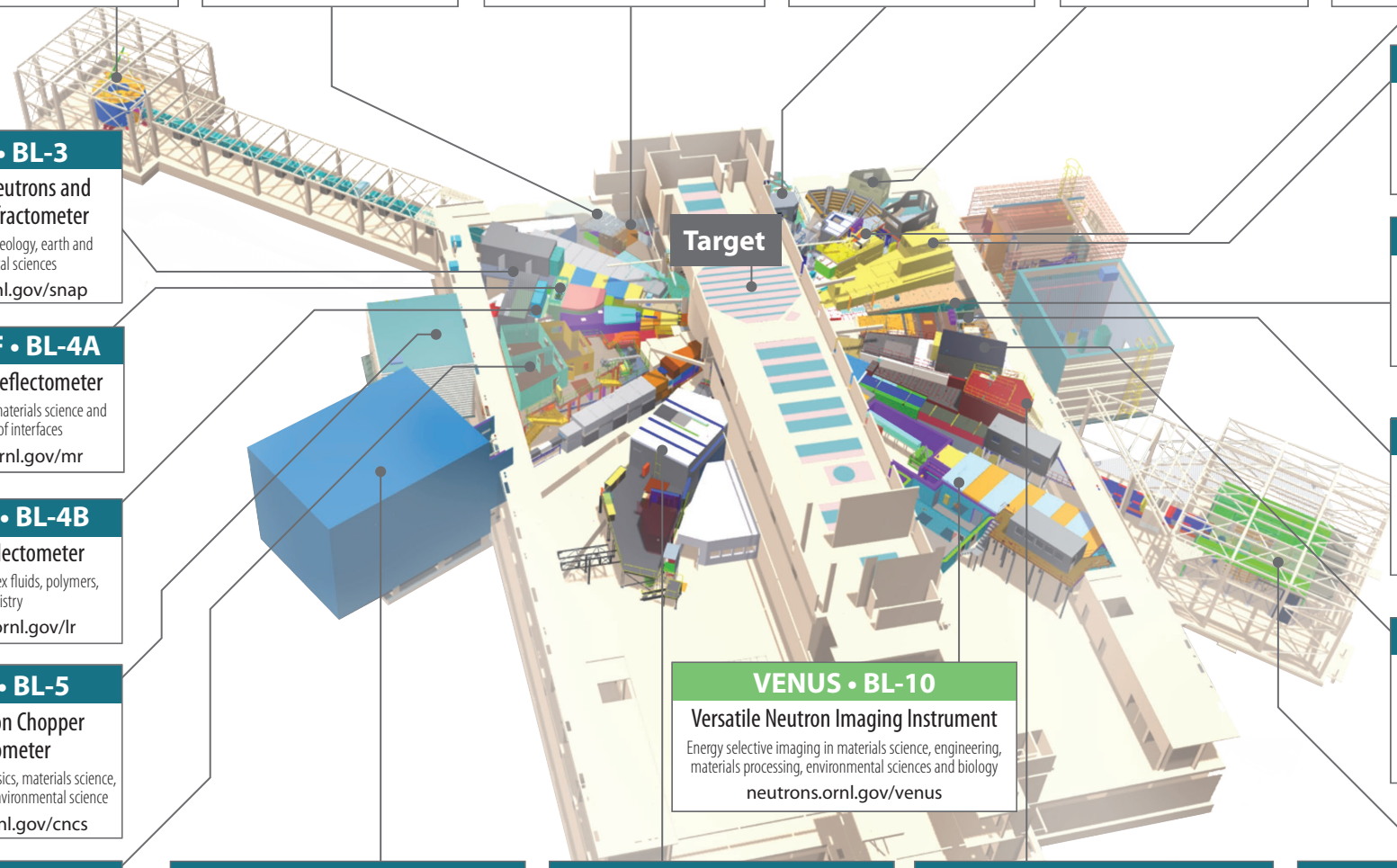
OAK RIDGE National Laboratory | SPALLATION NEUTRON SOURCE

World's most intense pulsed, accelerator-based neutron source

NEUTRONS.ORNL.GOV



BASIS • BL-2
Backscattering Spectrometer
Dynamics of macromolecules, constrained molecular systems, polymers, biology, chemistry, materials science
neutrons.ornl.gov/basis

NOMAD • BL-1B
Nanoscale-Ordered Materials Diffractometer
Liquids, solutions, glasses, polymers, nanocrystalline and partially ordered complex materials
neutrons.ornl.gov/nomad

USANS • BL-1A
Ultra-Small-Angle Neutron Scattering Instrument
Life sciences, polymers, materials science, earth and environmental sciences
neutrons.ornl.gov/usans

ARCS • BL-18
Wide Angular-Range Chopper Spectrometer
Atomic-level dynamics in materials science, chemistry, condensed matter sciences
neutrons.ornl.gov/arcs

SEQUOIA • BL-17
Fine-Resolution Fermi Chopper Spectrometer
Dynamics of complex fluids, quantum fluids, magnetism, condensed matter, materials science
neutrons.ornl.gov/sequoia

VISION • BL-16B
Vibrational Spectrometer
Vibrational dynamics in molecular systems, chemistry
neutrons.ornl.gov/vision

NSE • BL-15
Neutron Spin Echo Spectrometer
High-resolution dynamics of slow processes, polymers, biological macromolecules
neutrons.ornl.gov/nse

SNAP • BL-3
Spallation Neutrons and Pressure Diffractometer
Materials science, geology, earth and environmental sciences
neutrons.ornl.gov/snap

HYSPEC • BL-14B
Hybrid Spectrometer
Dynamics of quantum materials with optional polarization analysis
neutrons.ornl.gov/hyspec

MAGREF • BL-4A
Magnetism Reflectometer
Condensed matter, materials science and magnetism of interfaces
neutrons.ornl.gov/mr

FNP • BL-13
Fundamental Neutron Physics Beam Line
Fundamental properties of neutrons
neutrons.ornl.gov/fnpb

LIQREF • BL-4B
Liquids Reflectometer
Interfaces in complex fluids, polymers, chemistry
neutrons.ornl.gov/lr

TOPAZ • BL-12
Single-Crystal Diffractometer
Atomic-level structures in chemistry, biology, earth science, materials science, condensed matter physics
neutrons.ornl.gov/topaz

CNCS • BL-5
Cold Neutron Chopper Spectrometer
Condensed matter physics, materials science, chemistry, biology, environmental science
neutrons.ornl.gov/cncs

VENUS • BL-10
Versatile Neutron Imaging Instrument
Energy selective imaging in materials science, engineering, materials processing, environmental sciences and biology
neutrons.ornl.gov/venus

EQ-SANS • BL-6
Extended Q-Range Small-Angle Neutron Scattering Diffractometer
Polymers, soft materials and colloidal systems, materials science, life science, earth and environmental sciences
neutrons.ornl.gov/eqsans

VULCAN • BL-7
Engineering Materials Diffractometer
Mechanical behaviors, materials science, materials processing
neutrons.ornl.gov/vulcan

CORELLI • BL-9
Elastic Diffuse Scattering Spectrometer
Detailed studies of disorder in crystalline materials
neutrons.ornl.gov/corelli

MANDI • BL-11B
Macromolecular Neutron Diffractometer
Atomic level structures of proteins, macromolecules and DNA
neutrons.ornl.gov/mandi

POWGEN • BL-11A
Powder Diffractometer
Atomic-level structures in chemistry, materials science, and condensed matter physics including magnetic structure
neutrons.ornl.gov/powgen

Operating instrument in user program
Under construction

22-G00104_v2/jdh

The Spallation Neutron Source is a facility of Oak Ridge National Laboratory, managed by UT-Battelle for the US Department of Energy.