

Profile SFR-75

MCF

USA

GENERAL INFORMATION

NAME OF THE FACILITY MSTD Materials Characterization Facility
ACRONYM MCF
COOLANT(S) OF THE FACILITY n.a.
LOCATION (address): Oak Ridge National Laboratory (ORNL)
OPERATOR Center for Nanophase Materials Sciences, CNMS
CONTACT PERSON Karren L. More, One Bethel Valley Rd, Oak Ridge, TN37831-6064
(name, address, institute, function, telephone, email): ORNL, 865-574-7788, morekl1@ornl.gov

STATUS OF THE FACILITY Available for users who submitted proposal to CNMS
Start of operation (date): n.a.

MAIN RESEARCH FIELD(S)

- Zero power facility for V&V and licensing purposes
- Design Basis Accidents (DBA) and Design Extended Conditions (DEC)
- Thermal-hydraulics
- Coolant chemistry
- Materials
- Systems and components
- Instrumentation & ISI&R

TECHNICAL DESCRIPTION

Description of the facility

The MSTD Materials Characterization Facility (MCF), formerly the Shared Research Equipment (ShaRE) User Facility, at the Oak Ridge National Laboratory (ORNL) is one of three Electron Beam Microcharacterization Centers supported by the Scientific User Facilities Division of the Office of Science, U.S. Department of Energy. Since its inception in 1977, the ShaRE User Facility has provided access to a suite of advanced instruments and staff scientists for the μm to-Å-scale characterization of materials. The following instruments are available: Atom Probe Facility, Scanning Electron Microscopes, Scanning/Transmission Electron Microscopes, and Additional EM Specimen Preparation Facilities.

Acceptance of radioactive material

No

Scheme/diagram

n.a.

3D drawing/photo



FIG. 1. View of the FEG-SEM facility equipped with EDS and EBSD (left) and 200kV TEM facility equipped with EDS (right)

COMPLETED EXPERIMENTAL CAMPAIGNS: MAIN RESULTS AND ACHIEVEMENTS

PLANNED EXPERIMENTS (including time schedule)

TRAINING ACTIVITIES

ShaRE staff members will train users accordingly.

REFERENCES (specification of availability and language)

<http://web.ornl.gov/sci/share/index.shtml>