

EMSL Proposal - Necessary Information

To use the EMSL facility, prospective users are asked to submit a proposal form. Following submission of a proposal, proposal authors will receive a prompt confirmation of receipt of the electronic proposal. After a thorough peer review, the authors will be advised whether the proposed use has been approved.

Submit a User Proposal

An EMSL user proposal requires a lot of detailed information. To aid the process, we suggest you collect the necessary information before you begin filling out the proposal form, which is outlined below. This PDF/paper version of the EMSL online user proposal is provided as a convenient way for potential authors to prepare ahead of time the information needed for their proposal. **You will still be required to enter the actual information using the online system.**

Proposal Primary Author*

The lead professor(s) or advisor(s) of students or of post-docs should be listed as the primary author.

Is this participant the primary author of this proposal? Yes No

Will this participant be visiting EMSL? Yes No

Prefix: Dr. Mr. Mrs. Ms.

First Name

Middle Name
(No initials; if no middle name, use "NMN")

Last Name

Suffix

Primary Citizenship

Dual Citizenship

Profession:

- High School Student
 Undergraduate Student
 Graduate Student
 Postdoc
 Faculty/Staff
 Research Scientist/Engineer
 Professional
 Self-Employed
 Retired
 Other (please specify): _____

Phone Number (including area code)

Fax Number (including area code)

E-mail Address

Institution Information

Type of Institution: Academia Battelle Columbus DOE Lab (other than PNNL)
 Foreign National Laboratory Other Government Agency PNNL EMSL (if line staff)
 Private Industry Other (please specify): _____

Institution Name

Department

Business Address

City

State/Province
(only if U.S. or Canada)

Postal Code

Country

**In addition to the Proposal Primary Author, the above information will be required for each proposal participant. You may find it helpful to make additional copies of this page and complete one for each author you plan to list on the proposal.*

Proposal Details

Proposal Title: _____

Abstract: (500 word limit, you will need to cut and paste this on the online form. **NOTE:** Abstracts for standard open and science theme proposals that are not proprietary will appear on the EMSL website.)

Proposed Research file: (you will need to attach a file (.pdf or .doc) describing the proposed research, limited to three pages)

Additional Files: (e.g. CVs, images, etc). Authors can add any supplemental information they think is necessary but there is no guarantee that the reviewers will read it.

Preferred Start Date: _____

Preferred End Date: _____

Primary Research Area:

- | | |
|--|--|
| <input type="checkbox"/> Biological and Live Sciences
(Excludes medical applications) | <input type="checkbox"/> Chemistry
(excludes Materials Chemistry) |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Engineering |
| <input type="checkbox"/> Environmental Sciences | <input type="checkbox"/> Materials Sciences
(includes Condensed Matter Physics & Materials Chemistry) |
| <input type="checkbox"/> Medical Applications | |
| <input type="checkbox"/> Optics | <input type="checkbox"/> Polymers |
| <input type="checkbox"/> Physics (excludes Condensed Matter Physics) | <input type="checkbox"/> Other |

What Type of Access are you requesting?

- Standard Rapid*
*Proposal must clearly justify why Rapid Access is needed
*Limited to a Open Call/General type/Non-proprietary status (see categories below)

What Call for Proposals are you responding to?

- | | |
|---|--|
| <input type="checkbox"/> Open | <input type="checkbox"/> Science Theme Call: Biological Interactions and Dynamics |
| <input type="checkbox"/> Capabilities-based | <input type="checkbox"/> Science Theme Call: Geochemistry/Biogeochemistry and Subsurface Science |
| <input type="checkbox"/> Computationally Intensive Research | <input type="checkbox"/> Science Theme Call: Science of Interfacial Phenomena |

What Type of Proposal are you submitting?

- General Partner (requires an initial Letter of Intent)
 Resource Owner (for instruments co-owned with EMSL)

What is the Proprietary Status of your proposal?

- Non-proprietary Proprietary

Is this proposal associated with a National Science Foundation Supplemental Funding Request?

- Yes No

<http://www.nsf.gov/pubs/2004/nsf04025/nsf04025.htm>

Will you desire the assistance of EMSL staff in obtaining and interpreting the results?

- Yes No

In your proposal, be sure to specify how many labor hours you are requesting (e.g., "Need 8 hrs of consultant time to be trained to use X-ray Diffractometer" or "Trained to run accelerator, but need help analyzing the data").

EMSL Resources

If you know which EMSL resources you would like to use during your proposal, please indicate them in the list below by entering an estimate for the number of hours you plan to use the resource *for the first year* of your proposal.

Computing

Capability Development

_____ Computing: Altix1 cluster

_____ Computing: Grapes Server

Data File Storage

_____ Computing: Data File Storage (NWfs)

Graphics

_____ Computing: 16-Processor Linux Cluster (piceis)

_____ Computing: SGI 16-processor Graphics Server (NWWvisus)

_____ Graphics & Visualization Lab

Small Clusters

_____ Computing: NW-ICE

_____ Computing: Spokane cluster

Supercomputing

_____ Computing: MPP2 (HP 1960-Processor Linux Cluster)

_____ Computing: Chinook (HP 2310-Node Linux Cluster)

Deposition/Microfabrication

Ion/Molecular Beam Spectrometry

_____ Ion Accelerator, Beam Lines, and End Stations

_____ Surface Dynamics/Ion Deposition System

Microfabrication

_____ Electron Microscope: Dual-Beam FIB/SEM

_____ Microfabrication Laboratory (Clean Room)

Thin Film Deposition

_____ Deposition: Chemical Vapor, Oxide Metalorganic

_____ Deposition: Molecular Beam Epitaxy #1

_____ Deposition: Molecular Beam Epitaxy #2

_____ Deposition: Pulsed Laser Deposition System

Kinetics and Reactions

Surface Processes

_____ Atmospheric Pressure Reactor System

_____ Catalysis: UHV Model Catalysts, High Pressure

_____ Electron and Photon Stimulated Desorption (BES 2)

_____ Energetic Processes (Surfaces/Solids) Instrumentation

_____ Liquid-Beam Source

_____ Molecular Beam Kinetics (BSK)

_____ Molecular Beam Kinetics (ICS1-1)

_____ Molecular Beam Kinetics (ICS1-2)

_____ Surface Dynamics/Ion Deposition System

_____ Transient Kinetic Analysis (TKA)

Aerosol Particle Characterization

_____ Electron Microscope: Scanning, Environmental, Field Emission (FEI)

_____ Mass Spectrometer: Single Particle Mass Spectrometer (SPLAT II)

_____ Spectrometer: Second Harmonic Generation

_____ Spectrometer: Fluorescence, time-resolved

Gas Phase Clusters

_____ Mass-Selected Ion Deposition System – Electrospray Source

_____ Photoelectron Spectroscopy - Electrospray Source

_____ Photoelectron Spectroscopy - Low Temperature

_____ Photoelectron Spectroscopy of Atomic Clusters – Laser Vaporization Source

Solution Phase

_____ Spectrometer: Fluorescence, time-resolved

_____ Spectrometer: Stopped-Flow, Absorbance, BioLOGICSFM-400

Mass Spectrometry

Aerosol Particle Characterization

- _____ Mass Spectrometer: Laser Desorption - Ion Trap
- _____ Mass Spectrometer: Aerosol - time-of-flight - high resolution
- _____ Mass Spectrometer: Aerosol - time-of-flight - standard
- _____ Mass Spectrometer: Linear Ion Trap Quadrupole (LTQ) Orbitrap MS for environmental research
- _____ Mass Spectrometer: Single Particle Mass Spectrometer (SPLAT II)
- _____ Mass-Selected Ion Deposition System – Electro spray Source
- _____ Mass Spectrometer: Proton Transfer Reaction (PTRMS)

Biological

- _____ Mass Spectrometer: Fourier Transform
- _____ Mass Spectrometer: Ion Mobility

- _____ Mass Spectrometer: Linear Ion Trap
- _____ Mass Spectrometer: Time-of-Flight (ToF)
- _____ Mass Spectrometer: Triple Quadrupole
- _____ Mass Spectrometer: FT-ICR, 6 Tesla (for Ion Surface Collisions)

Other

- _____ Analytical: Inductively Coupled Plasma-Mass Spec (ICP-MS)
- _____ Mass Spectrometer: Isotope Ratio
- _____ Mass Spectrometer: Secondary Ion (SIMS), TOF
- _____ Mass Spectrometer: Time of Flight Secondary Ion (ToF SIMS) – 2007

Sample Preparation

- _____ Free Flow Electrophoresis

Microscopy

Aerosol Particle Characterization

- _____ Electron Microscope: Scanning, Environmental, Field Emission (FEI)
- _____ Mass Spectrometer: Single Particle Mass Spectrometer (SPLAT II)

Optical

- _____ NMR Spectrometer: 500 MHz WB Bruker Advance Imaging
- _____ Microscope: Fluorescence - Single-Molecule
- _____ Microscope: Fluorescence - Single-Molecule / Patch Clamp
- _____ Microscope: Raman Confocal
- _____ Spectrometer: FTIR - standard
- _____ Spectrometer: FTIR - high resolution
- _____ Spectroscopy: Fluorescence, time-resolved
- _____ Spectrometer: Laser Induced Breakdown (LIBS)
- _____ Spectrometer: Fluorescence, cryogenic
- _____ Spectroscopy: Fluorescence, time-resolved

- _____ Tissue-Culture Facility Electron

Electron

- _____ Electron Microscope: Photoemission (PEEM)
- _____ Electron Microscope: Scanning, Field Emission (LEO)
- _____ Electron Microscope: Transmission, High Resolution
- _____ Electron Microscope: Dual-Beam FIB/SEM
- _____ Electron Microscope: Transmission, Cryo

Scanning Probes

- _____ Microscope: Scanning Probe: AFM Compound
- _____ Microscope: Scanning Probe - AFM, Bioscope
- _____ Microscope: Scanning Probe - DI Nanoscope IIIa Multimode
- _____ Microscope: Scanning Probe - Dynamic Force
- _____ Microscope: Scanning Probe - STM/AFM, PicoSPM
- _____ Microscope: Scanning Probe - Variable Temperature
- _____ Microscope: Scanning Probe - Variable Temperature UHV

Subsurface Flow and Transport

Analytical

- _____ Analytical: Chromatograph: Ion #1
- _____ Analytical: Chromatograph: Gas/Mass Spec System 20
- _____ Analytical: Chromatograph: Liquid #1
- _____ Analytical: Inductively Coupled Plasma-Mass Spec (ICP-MS)
- _____ Analytical: Total Organic Carbon Analyzer (TOC)

Flow Cells

- _____ SFTEL: Flow Cells

Other

- _____ SFTEL: Microfluidics for Flow & Transport
- _____ SFTEL: Hydraulic Property Apparati

NMR and EPR

EPR

____ EPR Spectrometer Pulsed, ENDOR/ELDOR

High-Resolution Liquids

____ NMR Spectrometer: 500 MHz NB CMX for Liquids (and solids)

____ NMR Spectrometer: 600 MHz NB Varian Inova

____ NMR Spectrometer: 600 MHz NB Varian Inova -Cryoprobe

____ NMR Spectrometer: 600 MHz NB Varian LC-NMR System -
metabolomics cryoprobe

____ NMR Spectrometer: 750 MHz NB (17.6 Tesla) Varian Inova

____ NMR Spectrometer: 800 MHz (18.8 Tesla) Varian Inova

____ NMR Spectrometer: 900 MHz (21.1 Tesla)

Imaging

____ NMR Spectrometer: 2 Tesla Horizontal Bore Varian UniPlus
(Imaging)

____ NMR Spectrometer: 500 MHz WB Bruker Advance Imaging

Radiological

____ NMR Spectrometer: 300 MHz WB Tecmag Discovery (radioactive
samples)

____ NMR Spectrometer: 500 MHz NB CMX for Liquids (and solids)

Solid-State

____ NMR Spectrometer: 300 MHz WB CMX for Solids (and liquids)

____ NMR Spectrometer: 300 MHz WB Tecmag Discovery (radioactive
samples)

____ NMR Spectrometer: 500 MHz NB CMX for Liquids (and solids)

____ NMR Spectrometer: 500 MHz WB Varian NMR System (solids)

____ NMR Spectrometer: 750 MHz NB (17.6 Tesla) Varian Inova

____ NMR Spectrometer: 800 MHz (18.8 Tesla) Varian Inova

____ NMR Spectrometer: 900 MHz (21.1 Tesla) Radiological

Spectroscopy/Diffraction

Electron

____ Electron Spectrometer: Auger/Scanning Auger

____ Electron Spectrometer: HREELS, UHV Surface Chemistry

____ Electron Spectrometer: XPS/AES (Kratos multitechnique)

____ Electron Spectrometer: Scanning Multiprobe Surface Analysis
System - Versaprobe

____ Electron Spectrometer: XPS High Resolution (Quantum

____ Photoelectron Spectroscopy - Electrospray Source

____ Photoelectron Spectroscopy - Low Temperature

____ Photoelectron Spectroscopy of Atomic Clusters – Laser
Vaporization Source

Infrared

____ Spectrometer: FTIR - standard

____ Spectrometer: FTIR - high resolution

Ion/Molecular Beam Spectrometry

____ Ion Accelerator, Beam Lines, and End Stations

____ Surface Dynamics/Ion Deposition System

Mössbauer

____ Spectrometer: Mössbauer

Optical Spectrometers

____ Microscope: Raman Confocal

____ Spectrometer: Fluorimeter

____ Spectrometer: Circular Dichroism

____ Spectrometer: Stopped-Flow, Absorbance, BioLOGICFSM-400

____ Spectroscopy: Fluorescence, time-resolved

____ Spectrometer: Laser Induced Breakdown (LIBS)

____ Spectrometer: Fluorescence, cryogenic

____ Spectrometer: Fluorescence, picosecond

____ Spectrometer: Second Harmonic Generation

X-ray Diffractometers

____ X-ray Diffraction: Special Applications

____ X-ray Diffraction: Four-Circle

____ X-ray Diffraction: General Purpose

____ X-ray Diffraction: Microbeam

____ X-ray Diffraction: Single Crystal

Proposal Funding

Funding Agencies:

Select the funding agencies associated with your proposed research.

- Department of Defense
- DOE, Office of Advanced Scientific Computing Research
- DOE, Office of Biological & Environmental Research
- DOE, Office of Environmental Management
- DOE, Office of Nonproliferation & National Security
- DOE, Other: _____
- Environmental Protection Agency
- Foreign Government Agency
- Industry, Foreign
- Industry, U.S.
- LDRD, Other National Lab
- LDRD, PNNL
- National Aeronautics and Space Administration
- National Institutes of Health
- National Science Foundation
- Nuclear Regulatory Commission
- Other U.S. Government Agency: _____
- University, Foreign
- University, U.S.
- Other (please specify): _____

Work Package # (required for PNNL employees so the EMSL Business Office can verify if the work is government or private)

Materials & Equipment

- Will your research involve the use of human blood, tissues, DNA, cells, cell lines, or human biological samples in any form? Yes No
- Does your work involve the use of live animals? Yes No
- Will you be bringing or sending any chemicals to the EMSL facility? Yes No
- Will you be bringing or sending any samples to the EMSL facility? Yes No

If you intend to bring or send any chemicals, samples, or equipment to EMSL for this proposed research, please list it here. If you are bringing computers that will need to connect to the PNNL network, please list them as well. **Note: Do not ship any equipment, chemicals or samples to EMSL/PNNL without first coordinating with your host or the User Support Office, (509) 371-6003. Users are responsible for adhering to all Department of Transportation regulations.**

Comments/Additional Needs

If you have any additional needs or comments regarding the proposal or the process, please enter them here:

