

Center for Sustainable Energy at Notre Dame (ND Energy)

Name: _____ ND ID#: 901 _____
Status: REU Undergraduate Graduate Faculty Post Doc

Materials Characterization Facility (MCF)

Laboratory Policy and User Agreement Contract

For access to the ND Energy Materials Characterization Facility (MCF) and use of the MCF Laboratory, read and initial each statement below and indicate your agreement to abide by each policy by initializing each statement and signing the agreement at the end.

SAFETY

1. Enclosed shoes (no sandals, sling backs, or crocs), ankle-long pants (no shorts) and protective eyewear must be worn at all times in the laboratory. Gloves must be worn always when handling your samples, as well as any materials or chemicals. Protective eyewear, lab coats and gloves must be worn any time you are working in the wet chemistry laboratory and/or handling hazardous chemicals. Hair must be pulled back. _____
2. MCF provides users with the following Personal Protective Equipment (PPE): eye glasses, nitrile gloves, and disposable lab coats. If other protective equipment must be used during sample handling and measurement (e.g. goggles, face shield, respirator), it is the user's responsibility to provide this equipment. In this case, the user must get approval from the facility manager to use their own PPE prior to starting his/her experiment. _____
3. No eating or drinking in the laboratory. All consumable goods, including wrappers and containers, must be left outside of the laboratory. _____
4. If a laboratory accident occurs, respond to all health and safety concerns first. If an emergency arises, call **911** from the laboratory phone or **574-631-5555** from a cell phone. Spills must be cleaned properly. A spill kit is located in lab. Inform facility manager of all accidents as soon as possible (**office: 574-631-1493; cell: 574-229-2936; e-mail: ilightca@nd.edu**). Call Risk Management for proper procedures at **574-631-5037** or after 5:00 p.m. at **574-631-5555**. _____
5. **All** containers that you bring to the MCF must be labeled with "**contents, your last name and your PI's last name and date**". If you bring samples with complex composition, you need to provide the following information to the facility manager. _____
 - Name of compound(s) (if known)
 - Drawing of chemical structure (if known)
 - Identification of possible hazards:
 1. Reactivity (is it air and/or moisture sensitive, instable, corrosive, acid base, strong reducing or an oxidizing agent?)
 2. Flammability
 3. Health hazards (is it carcinogenic, strong acid/base, endocrine disruptor, biohazard, etc.?)
 4. Radioactivity
 - Required Personal Protective Equipment (PPE) to handle compound other than gloves, lab coat and safety glasses.
6. Users must provide MSDS datasheets for all chemicals they bring to the MCF. _____

7. If you intend to store your chemicals at the MCF, you must get the facility manager's permission. All chemicals must be signed (see paragraph 5) and stored properly, according to the safety regulations, depending on the hazard identification. _____
8. It is the responsibility of the user to inform the laboratory manager of all safety concerns regarding their sample handling and testing at the MCF prior to the experiment. _____
9. Project leaders, professors, and researchers are responsible for the proper training of their students and staff in safe laboratory practices, including the handling, transporting, and disposal of (bio) hazardous materials. _____
10. Highly toxic substances (toxicity grade 4) and samples that are explosive and/or flammable when in contact with air or moisture must be handled exclusively in the glove box. Only micro quantities (volumes below **0.2 ml** or masses below **1 mg**) are allowed to be taken out of the glove box in the securely sealed containers for measurements. _____
11. Sharps containers are located in all labs. Glass sharps and disposable glassware must be disposed only into the container with indicator "Glass sharps". Syringes with sharp needles, metal and other non-glass sharps should be disposed only into the container with indicator "Needles". _____
12. Solid waste contaminated with hazardous chemicals and materials must be disposed in the designated waste bags stored in the fume hood (wet chemistry lab). Liquid waste should be disposed in the designated containers in the fume hood. MCF provides containers for non-chlorinated organics, chlorinated organics, acidic waste and basic/alkaline waste. If waste does not fit into one of the MCF designated waste streams (e.g. Hg or Cd contaminated wastes, radioactive or biological waste), the user must provide information from Risk Management on the appropriate disposal, provide the appropriate container, and properly label the waste for disposal. _____
13. When transferring or filling liquid nitrogen, the user must always wear eye glasses, a face shield, and cryogenic gloves (provided by the MCF). _____
14. No laboratory items are to be taken in to or disposed of in the MCF office area. _____
15. The user is not allowed to move or disconnect any equipment in the MCF including pressurized gas cylinders. If the user suspects a gas leak, he/she should immediately notify the facility manager. _____
16. The user must have a current record of a laboratory safety class or a laboratory safety refresher prior to being allowed to use MCF equipment or the wet chemistry lab. _____
17. The user transporting, handling and testing radioactive samples must have a current record of a radiation safety class or refresher. Samples of radioactive materials may only be transported on campus by a means that is in compliance with University policy. Radioactive or potentially radioactive samples should be brought to the MCF in proper containers and handled in the designated area only (marked with a floor tape). Samples may not be placed outside the designated area. When working with potentially radioactive materials, the designated area must be chain restrained from the rest of the laboratory. Following the testing and removal of radioactive substances, the user must conduct a swipe test of exposed areas of the lab and/or instrument. _____

18. Failure to follow all required safety policies may result in restricting or banning the user access to the MCF. _____
19. The facility user must attend the Risk Management and Safety Laboratory Training Program and provide the MCF manager a copy of his/her general lab safety training card or most recent Safety Refresher Course. Program dates and registration information can be found at: <http://riskmanagement.nd.edu/training>. _____

INSTRUMENT USE

1. Training and authorization by the facility manager is required before use of any MCF instrument. The user should not train other people. **Undergraduate students are not allowed to work alone without supervision or prior approval from the facility manager.** _____
2. To use an instrument, the user must reserve a time through cores.nd.edu. If the user cannot make the appointment, they must cancel their entry as soon as possible. If the user scheduled more than a 4-hour measurement, he/she must notify the laboratory manager about cancellation. Failure to do so may result in extra charges. The instrument log book must be filled out every time the instrument is used. _____
3. No facility repairs or modifications of instruments or computers will be performed by anyone but the facility manager. This includes the installation of any personal software or games on the MCF computers. _____
4. The user must communicate to the facility manager any errors or problems with the instruments as soon as possible after problems occur. _____
5. The user is responsible for backing up data. The laboratory manager will perform regular data removal from all instruments and is not required to contact the user prior to data removal. _____
6. If a user's negligence or impropriety causes any damage, the user may be held monetarily responsible and/or may be banned from the MCF. _____

USER RESPONSIBILITIES

1. The user must leave all instrumentation, bench top areas, and other equipment clean and orderly. It is mandatory to remove all personal items and to clean up when finished each day. Storage of any items in the MCF is not allowed without permission from the facility manager. _____
2. The user must not remove any MCF property from the laboratories without permission from the facility manager. Anything signed out must be returned in a timely fashion in the same condition in which it was loaned, or the user will be responsible for replacement. _____
3. The MCF instruments are not to be used for personal consultation work or research that is not authorized by the University of Notre Dame. _____
4. Laboratory doors must be securely closed when the user departs (even if temporarily). _____

5. The user is responsible for disposing of hazardous waste (including bio-hazardous waste) and for cleaning the MCF equipment and lab space. _____
6. Use of MCF instruments should be explicitly acknowledged in any publications that result from the user's research. _____
7. In case of a tornado or other hazardous weather conditions requiring need for shelter, please leave the laboratory immediately and take the closest stairwell to the basement. When danger has passed, you will be notified via the building announcement system. **This is mandatory – Not optional!** _____

TRAINING

1. All laboratory personnel are required to fulfill specific University enforced training classes and then laboratory specific training. _____

Training description	Frequency of training	Where to get training
Laboratory safety (Parts 1, 2, and 3) - Laser/uv safety, RCRA, UND Emergency action plan, unqualified electrical work, worker access to medical records	1x	ComplyND
Laboratory fundamentals	Yearly	ComplyND
Portable fire extinguisher	Yearly	ComplyND

FACILITY ACKNOWLEDGEMENTS

1. The user should acknowledge the Materials Characterization Facility in all publications that have involved some use of facility equipment and/or instrumentation, or have benefitted from the assistance of the facility manager by using the following statement. _____

We thank the ND Energy Materials Characterization Facility (MCF) for the use of the [\[insert instrument\(s\) here\]](#). The MCF is funded by the Sustainable Energy Initiative (SEI), which is part of the Center for Sustainable Energy at Notre Dame (ND Energy).

POLICY AGREEMENT

I have read and agree to uphold all MCF policies as outlined above and initialed by me. Disregard of these policies could result in the loss of laboratory privileges.

User Signature	Date
Printed Name	Email Address
Department	Campus Phone
User NET ID	Advisor (Please Print)