



## Extended Laboratory Access: Protocol Approval

Student & Badge #: \_\_\_\_\_ Lab Location: \_\_\_\_\_ Date: \_\_\_\_\_

Laboratory Protocol/Procedure: \_\_\_\_\_

The purpose of the *Protocol Form* is to confirm that the proposed laboratory protocol may be safely conducted by appropriately trained students during Extended Laboratory Access hours. Check the category of any of hazards that are a component of the proposed protocol:

### Chemical Hazards:

<ul style="list-style-type: none"><li>○ <b>Pyrophoric Chemicals</b><ul style="list-style-type: none"><li>- Lithium Reagents: RLi (R=alkyls, aryls, vinyls)</li><li>- Metal carbonyls: Lithium carbonyl, Nickel tetracarbonyl</li><li>- Metal hydrides: Potassium hydride, Sodium hydride, Lithium Aluminum hydride</li><li>- Nonmetal hydrides: Arsine, Boranes, Diethylarsine, Diethylphosphine, Germane, Phosphine, Phenylphosphine, Silane</li><li>- Elements: Phosphorus, Cesium, Lithium, Potassium, Sodium, Sodium Potassium Alloy (NaK)</li><li>- Any compound listed as OSHA hazard Class Pyrophoric</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Water Reactive Chemicals</b><ul style="list-style-type: none"><li>- Aluminum Carbide, Calcium, Calcium carbide, Lithium aluminum hydride, Potassium, Sodium</li><li>- Any compound listed as OSHA Hazard Class “substances which in contact with water, emit flammable gases”</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Potentially Explosive Chemicals or Salts</b><ul style="list-style-type: none"><li>- Azide metal (M-N<sub>3</sub>), Nitrate (-ONO<sub>2</sub>), Nitro (-NO<sub>2</sub>), Nitrite (-ONO), Peroxide (-O-O-), Ammonium nitrate, Ammonium perchlorate, Benzoyl peroxide, Dinitrophenol, Nitrocellulose, Picric acid (trinitrophenol), Urea nitrate</li><li>- Perchlorate salts (ClO<sub>4</sub><sup>-</sup>)</li><li>- Any compound listed as OSHA Hazard Class Explosive or Self-reactive</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Acutely Toxic Chemicals</b><ul style="list-style-type: none"><li>- Carbon Monoxide, Cyanide Salts, Digoxin, 2,4-Dinitrophenol, Methyl mercaptan, Nitric oxide, Phosgene, Potassium cyanide, Sodium azide, Sodium cyanide</li><li>- Any chemical with an LD<sub>50</sub> (oral) &lt; 50 mg/kg)</li><li>- Any chemical listed as OSHA Hazard Class Acutely Toxic Category 1 or 2</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Peroxide Forming Chemicals</b><ul style="list-style-type: none"><li>- Isopropyl Ether, Methyl Isobutyl Ketone, Tetrahydrofuran, Acrylonitrile, Methyl Methacrylate, Styrene</li><li>- Any compound listed as OSHA Hazard Class Peroxide</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Strong Corrosives</b><ul style="list-style-type: none"><li>- Hydrochloric acid, Hydrofluoric acid, Nitric acid, Perchloric acid, Phenol, Sulfuric acid, Potassium hydroxide, Sodium hydroxide), or listed as OSHA Hazard Class Corrosive</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Strong Oxidizing Agents</b><ul style="list-style-type: none"><li>- Ammonium perchlorate, Ammonium permanganate, Bromine, Calcium chlorate, Calcium hypochlorite, Chromic acid, Hydrogen peroxide, Oxygen</li><li>- Any compound listed as OSHA Hazard Class Oxidizer</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Strong Reducing Agents</b><ul style="list-style-type: none"><li>- Lithium, Lithium Aluminum hydride, Magnesium, Potassium, Sodium, Sodium borohydride</li></ul></li></ul>
<ul style="list-style-type: none"><li>○ <b>Regulated Carcinogens</b><ul style="list-style-type: none"><li>- Acrylonitrile, Benzene, Formaldehyde, Gallium Arsenide, Inorganic Arsenic, Paraformaldehyde</li></ul></li></ul>



- Any compound listed as OSHA Hazard Class Carcinogen
o Other:

**Process Hazards:**

Can the student rescue themselves in case of an emergency? Yes <input type="checkbox"/> No <input type="checkbox"/>
The <i>Laboratory Emergency Plan</i> is posted near the lab phone with current emergency contact information. Yes <input type="checkbox"/> No <input type="checkbox"/>

**Health and Safety Requirements:**

o Procedures involve high-pressure equipment? Yes <input type="checkbox"/> No <input type="checkbox"/> - If yes, identify specific equipment:
o Procedures involve transferring large quantities [e.g., 10 liters or more] of hazardous materials? Yes <input type="checkbox"/> No <input type="checkbox"/> - If yes, identify specific material:
o Procedures involve handling animals that could cause serious injury? Yes <input type="checkbox"/> No <input type="checkbox"/>
o Procedures involve high voltage, high current? Yes <input type="checkbox"/> No <input type="checkbox"/>
o Other (Please specify):

**Faculty Advisor Approval:**

I have reviewed the <i>Hazard Assessment Form</i> for this procedure, including tasks and hazards involved in the work, consequences resulting for a worst-case scenario, the possibility of accident or incident that would prevent the laboratory personnel from calling for help, the laboratory personnel's training and experience and the time the work is to be conducted. This lab worker has permission to work during Extended Access hours on this procedure.	
Faculty Advisor Signature:	Date:
Print Name:	