

Laboratory Experiment Proposal Submission

Experimental Details

Experiment location: A115
Experiment title: Infiltrating Carbon Aerogels with Lithium Borohydride
Experiment date: 3 December or later
Experiment contactname: Nina Verdal
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Chemicals Used

<u>Chemical Name</u>	<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>	<u>Special Hazards</u>
Lithium Borodeuteride	3	3	2	NONE
Carbon Aerogel	0	0	0	
Deuterium Gas	0	4	0	NONE

Reactants and Resulting Samples

<u>Chemical Name</u>	<u>Hazardous?</u>	<u>Known Hazards</u>
Lithium Borodeuteride Infiltrated Carbon Aerogels	Y	Releases hydrogen (deuterium) gas when exposed to water

Required Safety Equipment

- Glove Hot
- Lab Coat

Required Laboratory Equipment

- Drying Oven
- Glovebox
- Vacuum Pump

Experimental Write Up

Carbon aerogel and lithium borodeuteride will be sealed in a tube in an inert gas glove box and transferred to a gas line. Deuterium gas will flow over the sample as it is heated to 320 deg C, the melting point of lithium borodeuteride. The aerogel wicks up the liquid lithium borodeuteride within five minutes of melting. The tube will be sealed and transferred to the inert atmosphere glove box.

Experimenter Signature: _____

Date: _____

Lab Responsible Signature: _____

Date: _____