

## Making a Grätzel Cell – RISK ASSESSMENT

Hazard	Likelihood and Seriousness of Injury	Control measures	Assessment of remaining risk
<b>Handling of glass electrodes and equipment</b>	Possible, serious injury unlikely	Explain potential for cuts during experiment.	Low
<b>Use of hotplate up to temperatures of 100 °C</b>	Possible, serious injury unlikely	Explain potential for burns. Ensure tweezers are used to remove hot slide. Ensure hotplate is switched off when not in use and keep unnecessary items at safe distance.	Medium
<b>Use of chemicals</b>	Possible, serious injury unlikely	Safety glasses must be worn at all times. Careful handling. See additional risk assessment form.	Low

**Title: Grätzel Cell**

**Assessor's Name: Madeleine Morris**

**Signature:**

**Supervisor's Signature:**

**Date: 08/06/12**

Quantity	Carcinogen, teratogen, mutagen	Toxic/very toxic	Harmful/irritant	Explosive	Pyrophoric	Flammable/highly flammable	Oxidising	Corrosive	Lachrymator	Other (please specify)
Titanium dioxide										
Acetic acid			X			X		X		
Iodine solution										
Raspberries										
Level of supervision (see Safety Handbook)	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>			

Heating	Cryogenics	Pressure	Vacuum	Other Equipment:
Safety Glasses	Labcoat	Fume hood	Safety screen	Gloves (type):
Face mask	Dust mask	Overnight permit	Other Controls:	
Emergency procedures:	Standard procedures.			
Disposal procedures:	<b>All chemicals can be washed down the sink with plenty of water. Cells can be disposed of in a glass bin.</b>			
First aid:	Standard procedures.			
Extra precautions:	<b>Care and supervision needed when using hotplate. Care needed with glass electrodes and equipment. Any breakages to be cleared up by volunteer or staff member.</b>			

**Scheme of Work/Procedure:**

See instruction sheet.