

Internal Use only:

Proposal Number:

Date Rec: \_\_\_\_\_

Date Analysed: \_\_\_\_\_

Data Emailed: \_\_\_\_\_

Return Requested?  Yes  No

*(Note: The proposal will be assessed by the panel without sight of the pages identifying the researchers involved)*

## Section A: Project Title

Project Title	RCUK Grant Reference (if applicable)

## Section B: Proposal Details

### 1. Name and email address of the Principal Investigator (PI) for this proposal

Title	Name	Email Address

### 2. Contact details of PI

Postal Address	Contact Telephone Number
	Postcode

By ticking this box, I give Cardiff PiFM consent to store the above details to enable tracking and discussion of our project data. I understand that my details will not be used for communication other than those explicitly stated at <http://www.pifm.uk/mailling-list2/>

### 3. Co-investigators

Please list the primary investigator (PI) and up to two Co-I's. All visitors to Cardiff should be either PI or Co-I. These researchers (including students) are authorised by the PI to liaise with Cardiff PiFM.

Role (PI or CoI)	Primary Co-I Name	Email Address	Telephone N <sup>o</sup>
Role	Additional Co-I Name	Email Address	Telephone N <sup>o</sup>

**PDR** – Postdoctoral Researcher **PGR** – Postgraduate Researcher **ACD** – Permanent Academic **NUK** – Non-UK based Researcher

By ticking this box, I/we give Cardiff PiFM consent to store the above details to enable tracking and discussion of our project data. I understand that my details will not be used for communication other than those explicitly stated at <http://www.pifm.uk/mailling-list2/>

4. Has your research group previously made use of the Cardiff PiFM facilities?  Yes  No

5. Is this proposal a:

Rapid response proposal (4-24 hours instrument time)

Standard proposal (1-5 days instrument time)

Block allocation proposal (more than one visit)

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6. Please briefly detail any publications that resulted from previous analyses performed at the Cardiff PiFM facility, this may include publications submitted or in press.  
By submitting this form you consent to having these publications listed on the Cardiff PiFM website as promotion for the facility.

Corresponding Author (Typically project PI)	Journal	Volume	Pages	Year

7. Will one or more investigators attend the analysis in Cardiff or send samples via post?  
 Attend (recommended)     Send samples via post (not available for block allocation)

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# Proposal

*(The proposal will be assessed by the panel without the previous pages identifying the researchers involved)*

Project Title	RCUK Grant Reference (if applicable)

- i. **Abstract.** Please provide a short description of your proposal, you should include background to the proposal, the research question to be addressed and the methodology, including data acquisition and data analysis methods.

- Block allocation** (These should form part of expressed calls and PI's should use the box below to detail the number of visits and expected length of each visit)

- ii. Please tick the general themed area of your research:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Catalysis                    | <input type="checkbox"/> Energy Storage / Battery       | <input type="checkbox"/> Semiconductor          |
| <input type="checkbox"/> Medical / Biological         | <input type="checkbox"/> Novel Materials & Biomaterials | <input type="checkbox"/> Electronics            |
| <input type="checkbox"/> Thin Film & Polymer          | <input type="checkbox"/> Geology                        | <input type="checkbox"/> Fibres / Nanomaterials |
| <input type="checkbox"/> Other (please specify) _____ |   |   |

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## Section C: Sample details

Please describe your samples to us in the simplest terms. In the space provided, please detail any extra information that might be useful not covered in your proposal. For example, what is the material of interest, what is the substrate (if any), how will you be preparing your samples for analysis?

**Note:** Typical sample sizes range from a few millimetres to a few centimetres. An ideal size is 10 mm x 10 mm. The longest dimension should be less than 60mm and ideally with a maximum thickness of 20 mm. If you are likely to exceed these dimensions, please speak to Cardiff PiFM staff prior to completing this section

<b>Nature of Sample</b>	<input type="checkbox"/> <b>Solid</b> (includes cats particles on Si Wafer) <input type="checkbox"/> <b>Particulate</b> (i.e. nanoparticles/loose powders/flakes) <input type="checkbox"/> <b>Other</b> (please specify below)		
<b>Total Number of Samples</b>	Please contact Cardiff PiFM Staff if the number of samples is greater than 15		
<b>Typical Sample Size</b>	<b>X (mm):</b>	<b>Y (mm):</b>	<b>Z (thickness) (mm):</b>
<b>Sample Composition</b> (please provide brief details in the right hand panel)	<input type="checkbox"/> <b>Inorganic</b>		
	<input type="checkbox"/> <b>Organic/Polymer</b>		
<b>Please provide any further details you may feel are useful with respect to the analysis of your samples below (e.g. use of conductive clips, cluster etch)</b>			
Are your samples magnetic / likely to respond to a magnetic field?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your samples likely to contain volatile hydrocarbons (e.g. solvents)?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Do your sample contains radioactive species? (detail in space above)			<input type="checkbox"/> Yes <input type="checkbox"/> No

### Elemental Analysis Required (Please detail the high resolution spectra you require recorded & pass energies, Survey scans are always recorded)

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## Control of Substances Hazardous to Health (COSHH)

We have developed the following COSHH assessment form to be associated with your project. As a facility receiving and working with many samples every month, from a diverse range of research fields, we must ensure that we know about the hazards and risks involved with the analysis.

At Cardiff PiFM, we appreciate that some samples are in fact considered non-hazardous, and in these cases we are happy for you to state this on the COSHH assessment, provided that documentation to support this, such as a Material Safety Data Sheets (MSDS), are included. Ultimately, the COSHH assessment is being performed and approved by Cardiff PiFM staff, therefore we request that some of the Hazards, Risks and controls are identified by the researcher sending samples to us, as it is you who is most familiar with the material.

Do **NOT** send samples until you have explicit acceptance from us. If in doubt, please contact us and do not send samples.

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## COSHH Assessment

Sections highlighted in blue are to be completed by the researcher sending the samples to us.

### 1. Project Details

<b>Project Title</b>	
<b>Date of Assessment</b>	
<b>Responsible Person:</b>	Staff of Cardiff PiFM Facility, c/o Prof. Philip Davies (Cardiff PiFM Director)
<b>Location of Work:</b>	Technology Transfer Hub, Cardiff University

### 2. Hazards. Please describe all Hazards associated with your samples

Hazard Type		Describe Hazardous Substance, include any Workplaces Exposure Limits (WEL) as indicated by the appropriate Materials Safety Data Sheet (MSDS)
 Nanoparticles	<input type="checkbox"/> Yes	
 Flammable	<input type="checkbox"/> Yes	
 Corrosive	<input type="checkbox"/> Yes	
 Harmful/Irritant	<input type="checkbox"/> Yes	
 Oxidising	<input type="checkbox"/> Yes	
 Explosive	<input type="checkbox"/> Yes	
 Toxic	<input type="checkbox"/> Yes	
 Carcinogen/Mutagen	<input type="checkbox"/> Yes	
 Radioactive	<input type="checkbox"/> Yes	
 Other Hazards	<input type="checkbox"/> Yes	

### 3. Risks: Please describe all Risks associated with these Hazardous Substances.

<b>Human diseases, illnesses or conditions associated with Hazardous Substances</b>
<b>Potential routes of exposure</b>
<input type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion <input type="checkbox"/> Injection <input type="checkbox"/> Absorption <input type="checkbox"/> Other (select all that apply and detail below)
<b>Maximum amount or concentration used</b>
<input type="checkbox"/> Negligible <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High (detail below)
<b>Potential for exposure to hazardous substances</b>
<input type="checkbox"/> Negligible <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High (detail below)

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**Use of hazardous substances**

Small scale    Medium scale    Large scale    Other (detail below)

Analysis of hazardous substances is limited to small quantities in the lab environment.

**Frequency of use**

Daily    Weekly    Monthly    Other (detail below)

One-off analysis of a set of samples, typically limited to a small number of days.

**Who might be at risk**

Staff    Students    Visitors    Public    New/expectant mothers    Other (detail below)

Only Cardiff PiFM staff and visitors to the Cardiff PiFM laboratory will have any opportunity to come in to contact with any potentially hazardous substance

**Assessment of risk to human health (prior to use of controls)**

Effectively zero    Low    Medium/Low    Medium    High (select one)

**Assessment of risk to environment (prior to use of controls)**

Effectively zero    Low    Medium/Low    Medium    High (select one)

**4. Controls to reduce Risk.**

**Please describe all Controls recommended to reduce the Risk associated with these Hazardous Substances.**

**Transport of Hazardous Substances to the facility (describe your packaging and delivery method)**

**Recommended Personal Protective Equipment (PPE)**

Safety glasses    Gloves    Lab coat    Respirator (see RPE section below)    Other (please detail)

**Respiratory Protective Equipment (RPE) (if applicable)**

Disposable mask    Respirator (please detail)    Other (please detail)

**Containment**

Laboratory    Controlled area    Glove box    Fume hood    Other (detail below)

Analysis is performed in the Cardiff PiFM laboratories which are all access-controlled areas suitable for handling of hazardous substances. Where required, glove box and fume hoods are available in the laboratories.

**Storage of Hazardous Substances**

Samples are stored in segregated, cool, dark, dry storage units securely stored within the laboratory environment. Samples are only stored for the duration of the project.

**Waste management and disposal**

Samples may be returned to the user if requested. For non-returns disposal is made in line with RCaH (or partner university) waste disposal protocols as defined in the respective document.

**Instruction, training and supervision**

Special instructions are required to safely carry out the work	No
Special training is required to safely carry out the work	Yes

**Cardiff PiFM staff are all trained in the correct and safe usage of all PiFM instrumentation and associated facilities**

Work may not be carried out without direct personal supervision





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Work may not be started without the advice and approval of a supervisor	<b>No</b>
Work can be carried out without direct supervision	<b>Yes</b>

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## 5. Emergency Procedures

Emergency procedures		
Refer to Material Safety Data Sheet (MSDS) for material under analysis.		
Minor spillage or release		
<b>Specify procedure</b>	Isolate and clean up area with reference to MSDS	
<b>Other actions</b>	Evacuate and secure laboratory / area	<b>No</b>
	Inform competent person (e.g. Director, safety officer, PI)	<b>Yes</b>
Major spillage or release		
<b>Specify procedure</b>	Isolate and clean up area in accordance with MSDS. Note that due to small sample sizes, minor/major are treated equally	
<b>Other actions</b>	Evacuate building by fire alarm	<b>No</b>
	Call security and fire brigade	<b>No</b>
	Inform competent person (e.g. Director, safety officer, PI)	<b>Yes</b>
Fire Precautions		First aid
Due to small quantities, specific fire precautions are not needed.		Refer to MSDS
Emergency contacts		
Name	Position	Telephone
Prof. Philip Davies	Facility Director	029 20 874072
Dr. David Morgan	Technical Manager	029 20 870766
TRH Security / Safety	Security / Safety	Ext

## 6. Assessed Risk Estimation Matrix

Severity of Harm	Likelihood of Harm			
	High	Medium	Low	Negligible
Severe	High	High	Medium	Effectively Zero
Moderate	High	Medium	Low / Medium	Effectively Zero
Minor	Low / Medium	Low	Low	Effectively Zero
Negligible	Effectively Zero	Effectively Zero	Effectively Zero	Effectively Zero

## 7. Approval

Assessor (PI / Assigned User)		
Name	Signature	Date
Assessor (Cardiff Staff Member)		
Name	Signature	Date