**JOB DESCRIPTION**

Postdoctoral Researcher in Rational Design Synthetic Chemistry and Electrochemistry, Department of Chemistry

Vacancy Ref: A3549

<table>
<thead>
<tr>
<th>Job Title:</th>
<th>Research Associate</th>
<th>Present Grade:</th>
<th>6</th>
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<tbody>
<tr>
<td>Department/College:</td>
<td>Chemistry</td>
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<tr>
<td>Directly responsible to:</td>
<td>Dr Kathryn Toghill</td>
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<tr>
<td>Supervisory responsibility for:</td>
<td>Part responsible for some PhD students and project students</td>
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**Other contacts**

- **Internal:** Dr John Hardy
- **External:**

**Major Duties:**

**Research:**

1. To design, synthesize and fully characterize electrochemically active inorganic and organic compounds with specific electron donating properties.

2. Evaluate a range of heterogeneous and homogeneous catalysts with the donor solutions, supporting and directing the work of other group members where interests overlap.

3. Undertake diagnostic electrochemical experiments, such as voltammetry, impedance spectroscopy and dynamic kinetic methods. Must be able to effectively and accurately analyse the data generated.

4. Design and improve bulk electrolysis static and flow cell experiments. Includes the fabrication and installation of suitable electrochemical flow cell testing systems and the use of gas diffusion electrodes.

**Leadership:**

5. To supervise project students and PhD students.

6. To contribute to the day-to-day running of the physical/analytical laboratory, including the upkeep of safety documentation.

7. Participate in regular project meetings with colleagues at Lancaster and prepare and present talks, posters and reports to disseminate the results of these studies, externally and internally.

8. Preparation of journal papers for publication of project findings.

9. Contribute to writing research proposals that build on the expertise developed in this project.