Grenoble INP - UGA is a renowned public institution of higher education and research, and a major player in the Grenoble ecosystem. It is the engineering and management institute of Grenoble Alpes University, and plays a leading role in the scientific and industrial community.

Researcher in recycled materials

<table>
<thead>
<tr>
<th>Job reference number</th>
<th>2024-RESEARCHMATSCRAP-LEPMI</th>
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</thead>
<tbody>
<tr>
<td>Research field</td>
<td>Synthesis of recycled active materials for Li-ion batteries</td>
</tr>
<tr>
<td>Host laboratory</td>
<td>LEPMI (UMR 5279Grenoble-INP, UGA et CNRS) <a href="https://lepmi.grenoble-inp.fr/">https://lepmi.grenoble-inp.fr/</a></td>
</tr>
<tr>
<td>Researcher profile</td>
<td>First stage researcher (R1)</td>
</tr>
<tr>
<td>Location</td>
<td>Grenoble, France</td>
</tr>
<tr>
<td>Date of recruitment / contract term</td>
<td>01/07/2024 (24 months)</td>
</tr>
<tr>
<td>Contacts</td>
<td><a href="mailto:lenka.svecova@grenoble-inp.fr">lenka.svecova@grenoble-inp.fr</a> and <a href="mailto:didier.devaux@grenoble-inp.fr">didier.devaux@grenoble-inp.fr</a></td>
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Grenoble INP - UGA is an equal opportunity employer committed to sustainability. Grenoble INP-UGA celebrates diversity and equity and is committed to creating an inclusive environment for all employees. All qualified applications will be considered without discrimination of any kind.
LEPMI is an internationally recognized laboratory whose research activities focus primarily on energy (from materials up to operation of the complete device) and electrochemistry. Since several years now, among the various themes developed within the laboratory, the recycling of lithium battery materials has been one of LEPMI’s strong points. This recycling activity is carried out in close collaboration between the MIEL and EIP teams in the Grenoble part of the laboratory.

**Offer description:**

As part of an ADEME project called SCRAPCO2MET, the LEPMI laboratory, specialist in energy storage systems and their recycling, is looking for a post-doctoral fellow to work on task WP5 of the project. This task is entitled "Synthesis of recycled active materials" and LEPMI is the WP 5 leader. In particular, this WP aims to prepare recycled active materials from the precursors resulting from WP4 of the project by calcination and relithiation in order to transform them into electrochemically active oxides. It will also be necessary to carry out physico-chemical characterizations of the inputs and outputs of this stage (XRD, SEM, acid digestion + AAS /ICP-OES, XPS etc.), their granulometry and electronic conductivity. The materials thus prepared will then be tested in button cells and pouch cells.

In particular, the following work is forecasted:

- Preparation of recycled active materials from the precursors produced in WP4 by calcination and relithiation in order to transform them into electrochemically active oxides.
- Physico-chemical characterization of the inputs and outputs of this stage (XRD, SEM, acid digestion + SAA /ICP-OES, XPS etc.), their granulometry and electronic conductivity, etc.
- Formulation of functional inks (AM/carbon/binder ratio)
- Preparation of button cells (tests vs. a reference electrode)
- Cycling tests
- Post-mortem analyses of cycled cells (SEM, XRD, SEM, AAS/ICP-OES, XPS, etc.)

**Specific requirements or conditions**

Proficiency in English and French is required. In addition, international experience will be a decisive asset.

**Specifics of the position**

Research can be carried out at several sites in Grenoble and St Martin-d'Hères. In addition, given the industrial nature of the project, travel to partner sites (Rhône-Alpes region) is expected. In view of the originality of the protocol, and in agreement with the partners, travel abroad (congresses) may be envisaged.

**Position assigned to a restricted area**: YES

(Device for the protection of the scientific and technical potential of the nation, conditioning the appointment of the researcher to the authorization of the Defense Security Officer).

**How to apply**

Applications must be sent to: lenka.svecova@grenoble-inp.fr

Application deadline 21/06/2024