

## Post-Doctoral Researcher in Solid-State Li-ion batteries

Duration – 2 years

Available from 01/01/2027

### Context

Do you want your work to have an impact on the ongoing Energy Transition? Atomic Energy and Alternative Energies Commission, Laboratory for Innovation in Technology for Energy and New materials (CEA/LITEN) located in Grenoble, France, is one of the world's leading centers for the battery research with excellent facilities both for fundamental and industry-grade purposes. In the frame of emergent need for greener energy, one of our missions is to facilitate implementation of electric transport via advancing rechargeable batteries. LITEN is an active member of Carnot Energies du Futur - The Carnot Institute for New Energy Technologies ([Home - Institut Carnot](#)). We are looking for a highly motivated post-doctoral researcher to work on a Carnot project dedicated to the development of air-stable solid electrolytes for Li-ion batteries to further facilitate their practical implementation. The project suggests chemical modification of the electrolyte, its advanced characterization using a set of physico-chemical methods including dynamic nuclear polarization (DNP)-enhanced solid-state nuclear magnetic resonance (NMR) measurements and representative tests in small-scale batteries. A multidisciplinary team is involved in the project with much excellence and expertise in the topic. An example of a recent related research can be found here: <https://doi.org/10.1016/j.ensm.2025.104742>. New ideas, publications, patents and participation at international conferences are targeted.

### Role of the candidate

- Propose, design and conduct the experiments with respect to the aims of the project and state-of-the-art
- Continuous literature screening during the project and making a review
- Work in the multidisciplinary environment
- Data treatment, writing of reports with respect to deadlines, scientific publications and patent proposals
- Presenting the results internally and externally

### Candidate's profile:

- PhD (less than 3 years ago) in Materials Chemistry, Physical Chemistry, or Electrochemistry.
- Knowledge of rechargeable batteries and a solid understanding of the associated scientific and technological challenges are essential.
- Knowledge of Organic Chemistry, thin films, and/or NMR spectroscopy is an advantage.

- Proven hands-on experience with battery characterization techniques (at least some of the following): X-ray diffraction (XRD), Raman spectroscopy, ionic conductivity measurements, NMR.
- Excellent laboratory skills, with a strong commitment to laboratory safety regulations.
- Excellent written and verbal communication skills in English; knowledge of French would be an asset.
- Ability to work effectively both independently and as part of a team, with appropriate support from the project team.
- A rigorous approach to research, along with creativity and scientific curiosity, is highly valued.

### **Guarantees and benefits**

Stable 2-year post-doc position

Salary starting from 40.8k€ per year

A working contract at CEA offers good work-life balance, professional training to strengthen your skills or acquire new ones, excellent medical insurance, subsidies for the use of public transport (85%) and the staff canteen, holidays and a variety of cultural and sports activities. Home working is authorized under certain conditions. Grenoble is located in French Alps providing an easy access to activities in the mountains.

### **How to apply**

A detailed CV with a motivation letter and 3 names of referees including one from the last position, are required at the first stage. Please, send them to the following addresses: [Irina.profatilova@cea.fr](mailto:Irina.profatilova@cea.fr); [Vasily.tarnopolskiy@cea.fr](mailto:Vasily.tarnopolskiy@cea.fr). The selected candidates will be asked to present shortly their previous research and to discuss on challenges related to the proposed project during the interview. Please note that the applicants are subject to administrative screening (background checks) and to medical fitness check. We are committed to equal opportunities and diversity and therefore welcome applications from all suitably qualified candidates.