

## **PhD Fellowship in Hybrid Polymer Electrolytes for Solid State Batteries**

A PhD Fellowship in Energy Storage is available at the Basque Center for Macromolecular Design and Engineering, POLYMAT Fundazioa and at CIDETEC Foundation.

The main goal of this PhD thesis will be to develop novel hybrid block polymers stable to high voltage cathodes ( $> 4.5V$  Li/Li<sup>+</sup>), with special attention to micro homogeneity, self-healing, and Li protection. The most promising materials will be used for the development of SPE with wide electrochemical stability window, good mechanical properties, good compatibility with lithium metal anode, and high ionic conductivity. Special attention will be paid to the development of an unambiguous evaluation method of the electrochemical stability of the synthesized solid polymer electrolytes. Finally, the developed SPE will be evaluated in high voltage solid-state batteries with lithium metal anode and thick high voltage cathodes.

Applicants must have a BSc and MSc in Chemistry or similar with a strong background in Polymer Science, Materials Science and Electrochemistry. Those with experimental and communications skills, and enthusiasm for research and innovation to carry out a challenging 3-year research project are encouraged to apply. Successful candidate will be incorporated into a multidisciplinary and multicultural battery R&D team.

Applications will be considered upon arrival including:

1. (i) a cover letter highlighting their interest in the position.
2. (ii) curriculum vitae.
3. (iii) a short description of previous research (1-2 Pages).
4. (iv) the names and contact addresses (e-mail) of two academic referees.

Applications should be addressed to Dr. Irune Villaluenga (irune.villaluenga@polymat.eu) and/or Dr. Andriy Kvasha (akvasha@cidetec.es) before the 31/03/2021.