

(BL25/2024\_IST-ID)

## Post-Doctoral Research Fellowships

Applications are open for 1 Post-Doctoral Research Fellowship(s), within the framework of project NGS – New Generation Storage/IN+, 1801P.01313, financed by the Resilience and recovery Plan (PRR)-IAPMEI, under the following conditions:

**Scientific Area:** Chemistry and Chemical Engineering

**Admission Requirements:**

- a) to hold a PhD degree obtained in the 3 years previously to the submission of the fellowship application;
- b) to have carried out the research work that led to the PhD degree in a different entity from the host institution of the fellowship;
- c) Not to exceed, with this fellowship contract, including the possible renovations, an accumulated period of 3 years in this type of fellowship, continuously or with interruptions;
- d) Not to have previously held a post-doctoral fellowship from IST-ID.

**Workplan:** The aim of this work is to study the selective extraction/recovery of Li, Co, Mn and Ni from solutions resulting from the leaching of black masses produced in the dismantling of end-of-life Li batteries. Thus, after producing the leachates, it is intended to study the processes for the selective recovery of metals by conventional liquid-liquid extraction, as well as using the innovative eutectic solvents for this purpose. It is also planned to do a preliminary technical and economic evaluation of the use of eutectic solvents compared to conventional processes.

**Legislation and Regulations:** Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

**Workplace:** The work will be developed at the laboratories of CQE and Cerena under the scientific supervision of Prof. Isabel Marrucho and M. Joana Correia

**Duration:** The research fellowship(s) will have the duration of 12 months. It's expected to begin in April 2024, and may be eventually renewed up to the maximum of 24 months.

**Monthly maintenance allowance:** According to the values for Research Fellowships awarded by FCT in Portugal ([https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM\\_atualizacao-2024.pdf](https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf)), the amount of the monthly maintenance allowance is € 1801,00, being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods will be the following: Experience in the area of work, including leaching and extraction with eutectic solvents/solvents (40%), knowledge of the physico-chemical processing of batteries (20%) and scientific CV (40%).

**Composition of the selection Jury:** Isabel Marrucho, Maria Joana Neiva Correia, Maria Rosinda Ismael

**Announcement/ notification of the results:** The final evaluation results will be communicated to all applicants by email.

**Deadlines and procedures of complaint and appeal.** A complaint may be lodged from the final decision within 15 working days, or an appeal to the Executive Board of IST-ID within 30 working days, both counted from the respective notification

**Application deadline and formalization:** The call is open from March 12 until March 25, 2024.



It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/>); ii) *Curriculum Vitae*; iii) academic degree certificate; iv) motivation letter; v) declaration on honour that the applicant does not exceed with this contract an accumulated period of three years in this type of fellowship, continuously or with interruptions, within the technological and scientific system, and that the research work that led to the PhD degree was carried out in a different entity from the host institution of the fellowship.

Applications must be submitted to the email: [isabel.marrucho@tecnico.ulisboa.pt](mailto:isabel.marrucho@tecnico.ulisboa.pt)