

Postdoc Research Group Freunberger: Metal-sulphur electrochemistry

- Klosterneuburg (Vienna), Austria
- € 69'188* gross/year

The group of Stefan Freunberger ([group website](#)) is looking for an outstanding postdoctoral researcher interested working on a frontier topic of sulphur redox chemistry at the Institute of Science and Technology Austria. Exploiting sulphur redox chemistry in batteries may enable a step change in energy storage but reaction mechanisms are poorly known, causing poor capacity, rate capability and cycle life. We have previously used combined diffractive and spectroscopic methods to elucidate important reaction steps ([link](#)). The aim of the post is to close critical knowledge gaps in metal-S electrochemistry with both solid-state conversion and with liquid electrolytes.

We shall use operando TEM, SAXS/WAXS and spectroscopies together with sophisticated data analysis as key tools, complemented by a suite of in/ex-situ methods and synthesis. To gain a deeper understanding, we will collaborate with groups specialized in quantum chemical calculations and data science.

Your profile

- PhD in Chemistry, Materials Science, or Chemical Engineering or related field
- Commitment to research excellence with a proven relevant track record in leading journals
- Experience in physical chemistry, electrochemistry, and coupled spectroscopic, diffractive, and microscopic techniques
- Experience in inorganic and organic syntheses under inert conditions
- Experience in battery electrochemistry, ideally also S electrochemistry
- Experience in machine learning and quantum chemical methods is a strong plus

Application documents: Please send a single pdf document containing your cover letter, CV, publication list, and contact information of 2 to 3 references.

To submit your application please email: stefan.freunberger@ist.ac.at. Please use the position name above as your subject line.

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