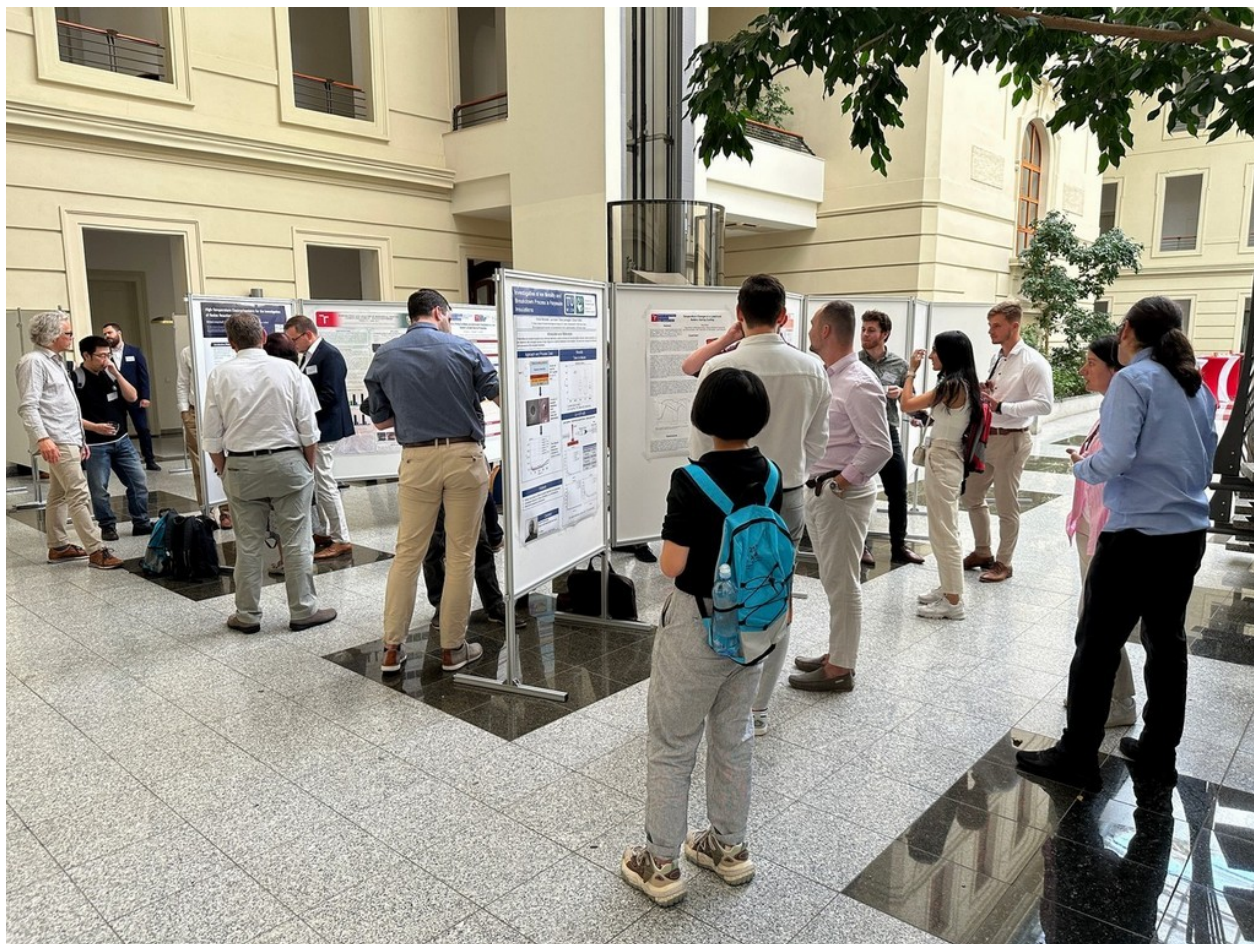


# The 25th ABAF International Conference

## Final Report for the International Society of Electrochemistry

Brno University of Technology, Faculty of Electrical Engineering and Communication, has been active in the research of materials for electrochemical power sources for over 50 years. Since 2000, the Department of Electrical and Electronic Technology has been organizing the ABAF ("Advanced Batteries, Accumulators and Fuel Cells") conference series. These conferences are focused on electrochemical power sources, energy storage, renewable energy, corrosion, and other electrochemical processes.



The jubilee 25th year of the conference took place from August 25 to 28, 2024, in Brno, Czech Republic. Ninety-five participants represented a wide range of countries, underscoring the conference's international character. Countries represented included Austria, Czech Republic, Germany, Ireland, Poland, South Korea, Slovakia, Turkey, the United Kingdom and Ukraine.

In addition to the academic program, attendees enjoyed a cultural and social program that included an excursion to the Museum of Aviation and Ground Technology, a tour of the Brno underground and a laser show featuring Tesla coils. Evenings were further enhanced by dinners held at iconic local venues, providing opportunities for networking and informal discussions among participants.

One of the highlights of the conference was the "Best Poster by Young Scientists" competition, sponsored by the International Society of Electrochemistry. Open to students and researchers under the age of 35, the winners were selected through a vote by all conference participants. While every participant received at least one vote, four posters clearly stood out. Their authors were awarded prizes including e-book readers, electronics, luxury pens, and confectionery.

First prize was awarded to David Trochta from Brno University of Technology for his work *"Advanced In-Situ SEM Analysis of Electrode Structural Changes in Li-ion Coin Cells During Cycling"*. Second place went to Michael Georg Stadt from Vienna University of Technology for his research *"High-Temperature Electrochemistry for the Investigation of Redox Reactions on Metal Surfaces"*. Miljana Vuksanovic from the Austrian Institute of Technology secured third place with her study *"Shellac – Application of a Sustainable Biopolymer as a Binder for Si/Gr-Anodes in Li-Ion Batteries"*, and Martin Spurný from the University of Chemistry and Technology in Prague took fourth place for his poster *"Solid-State Composite Materials for Redox-Mediated Flow Batteries"*.



The conference proceedings culminated in the publication of a special issue of Monatshefte für Chemie - Chemical Monthly in May 2025. The organizers would like to express their sincere gratitude to the sponsors who supported the 25th ABAF conference. These included Pragolab, ChromSpec, BioLogic, Czech Battery Cluster, EVC Group, EV Battery and Foxconn. Their contributions helped ensure the smooth running of the event.

Preparations are already underway for the next edition. The 26th ABAF International Conference will take place once again in Brno, from August 31 to September 3, 2025. As in previous years, the conference will bring together researchers, industry professionals, and students to share knowledge and foster collaboration in the field of electrochemical power sources.