

Dr. Eneli Monerjan (née Härk)

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My research is driven by one goal: to understand and describe electrochemical interfaces and charge-transfer processes as they happen, in real time and across length scales, by combining operando measurements at neutron and synchrotron facilities with large datasets and data-driven models.

Education

- 2022 – **Habilitation (in progress)** (Friedrich Schiller University Jena, Germany)
2004 – 2008 **PhD in Physical and Electrochemistry** (University of Tartu, Estonia)
2002 – 2004 **MSc in Physical and Electrochemistry** (University of Tartu, Estonia)

Work experience

- 2021 – **Research Fellow in Physical and Electrochemistry, SAS Instrument Scientist** (HZB, Germany)
– Interfacial electrochemistry of porous carbons, combining operando electrochemical methods (EIS, galvanostatic charge–discharge) with SANS/SAXS at large-scale facilities: Li–S batteries, Na-ion batteries, hard carbons and carbon-supported fuel-cell catalysts.
– **PI in the M-ERA.NET project CoLi-SCo** on Li–S batteries (2024–2027) and participant in multiple national and international projects.
– Collaborations: **German Aerospace Center (DLR)**, Cologne, aerogel-based Li–S cells studied by operando SAXS; **Justus Liebig University Giessen**, non-graphitic carbons and SAS porosity analysis; also **FSU Jena** and **University of Tartu**.
– Master's courses at FSU Jena (2022–); PhD, MSc and BSc supervision at HZB.
2014 – 2020 **Guest Postdoc (2014–2017), Postdoc and SANS Instrument Scientist (2017–2020)** (HZB, Germany)
2005 – 2017 **Institute of Chemistry** (University of Tartu, Estonia; Master's teaching 2008–2014)

ISE and professional service

- ISE member since 2004. **Regional Representative of Estonia** for two terms (2014–2018). Organised the 5th Baltic Conference on Electrochemistry (2008), an ISE-sponsored meeting. Invited speaker, 42nd ISE Topical Meeting, Espoo (2026).
- Programme Committee and organiser, LEAPS-INNOV Battery Forum (2024–). Member of ECS, EERA and BEPA. Expert reviewer for NCN Poland, the Estonian Science Prize and EU funding programmes.

Achievements

- About 130 publications; 1,679 citations, h-index 27, i10-index 46 (Google Scholar). IAAM Scientist Medal (2019); University of Tartu Badge of Distinction (2014).
- Selected invited talks: 42nd ISE Topical Meeting, Espoo (2026); TN 2025, Buenos Aires (2025); NEPHEWS Workshop, Nairobi (2025); lecturer at KTH Stockholm (2025); International Operando Battery Days, Grenoble (2024); ICTP–WE Heraeus Conference, Trieste (2024); German Zeolite Conference, Jena (2024); Workshop on Battery Science, Istanbul (2024); ANSTO–HZB Neutron School (2022).

Selected latest papers

- Glatthaar, ..., **Härk**, Keiderling, Smarsly, "Design strategies for non-graphitic carbons with closed ordered mesoporosity: model systems for porosity analysis," *J. Mater. Chem. A* (2026), doi:10.1039/d6ta02931k
- Lühns, Kalder, **Härk**, Sebastiani, Partovi-Azar, "Quantum Chemical Investigation of the Interaction of Sodium Ions with Hard Carbon-Based Systems," *J. Phys. Chem. C* (2026), doi:10.1021/acs.jpcc.5c07586
- Jäger, Teppor, ..., Kochovski, **Härk**, "Small-Angle X-ray Scattering Monitoring of Porosity Evolution in Iron–Nitrogen–Carbon Electrocatalysts," *ACS Nano* (2025), doi:10.1021/acsnano.5c14955