



Newsletter issue 12

Welcome...

... to the 12th and final issue of the MeBattery newsletter! **After 3.5 years, MeBattery has come to an end.** It was such an exciting ride. Find out more about the results in our recently released video interviews. Facts and figures are summed up in an infographic. And publications continue to be released. So, keep an eye open! With this, it's time to say goodbye. **There is much potential in mediated redox-flow batteries, so we hope to be around in the future!**

Final MeBattery Meeting & project closure



On 28-29 October 2025, the MeBattery consortium gathered for their **final meeting** hosted by the ICCRAM team at **Burgos University** in Spain. The meeting focused on the preparation of the final review meeting putting the results of the project in the center of the discussions.

[Read more](#)

Interview series about project results

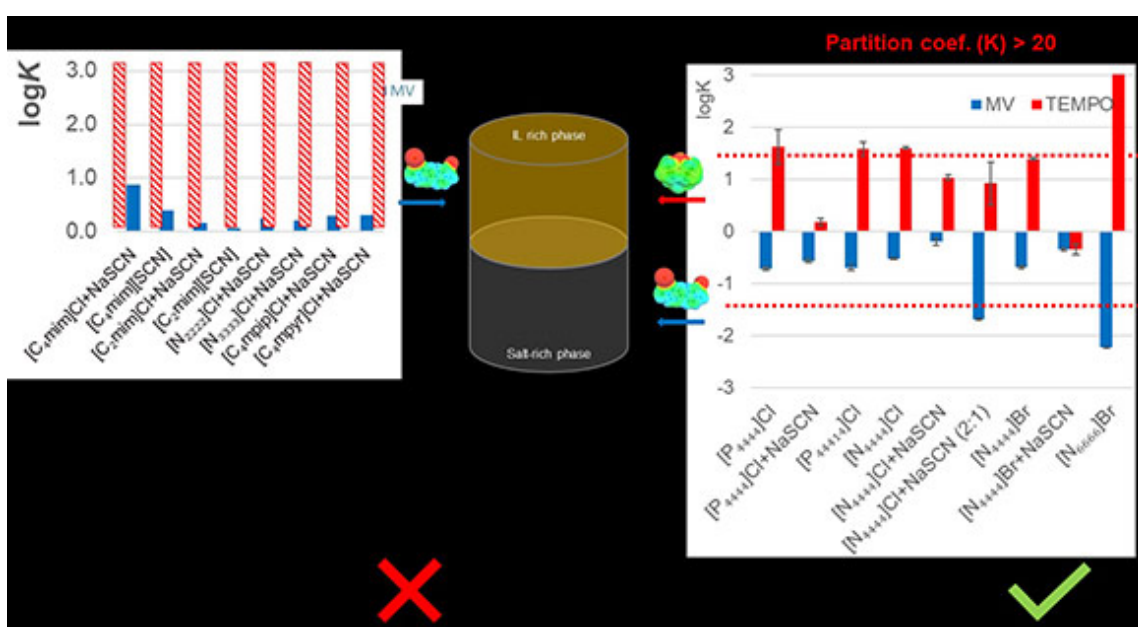


Over the past few weeks, we have successively released **5 interviews** focusing on the project's major achievements, insights into research techniques and the potential impact of MeBattery.

[Watch the videos here](#)

Publication:

**Tuning biphasic electrolytes for membrane-free redox flow batteries:
influence of sodium thiocyanate on partition and viscosity**

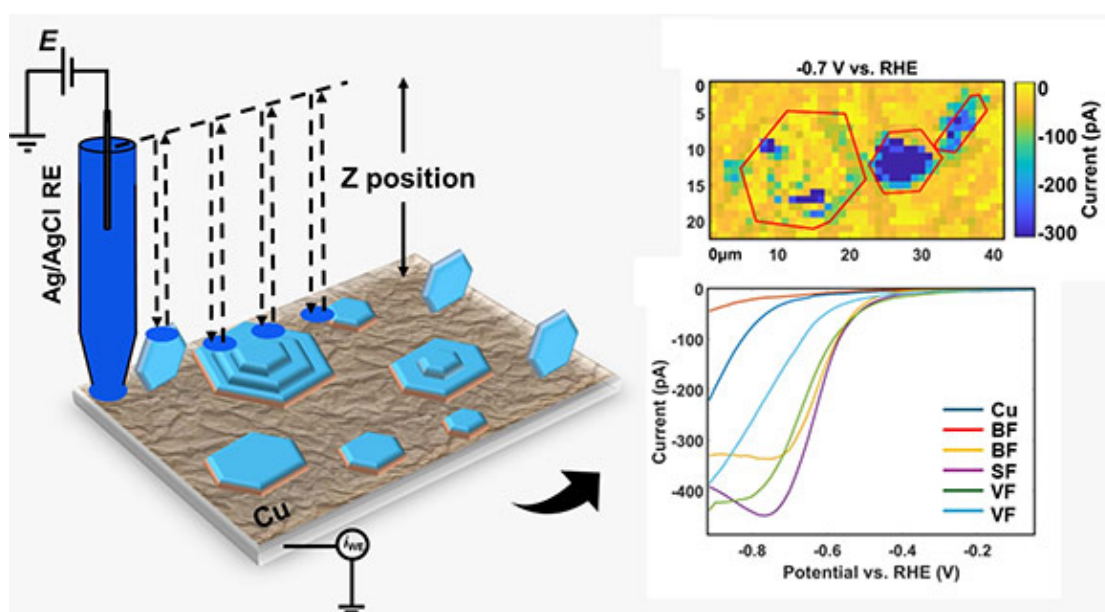


Murilo L. Alcantara, Paula Navalpotro, Gabriel Camilo, Marco Prazeres, Catarina M.S.S. Neves, Ana Maria Ferreira, Edgar Ventosa, Rebeca Marcilla, João A.P. Coutinho

While membrane-free redox flow batteries (RFBs) offer a promising alternative to conventional systems, achieving low cross-contamination of redox-active species while maintaining low viscosity remains a challenge. This study investigates the effect of sodium thiocyanate (NaSCN) on the partitioning of methyl viologen (MV) and TEMPO, and on the thermophysical properties of aqueous biphasic systems (ABS) designed for membrane-free RFBs.

The full publication is available here

Publication: Insight into Mo₂C Nanoplates Growth

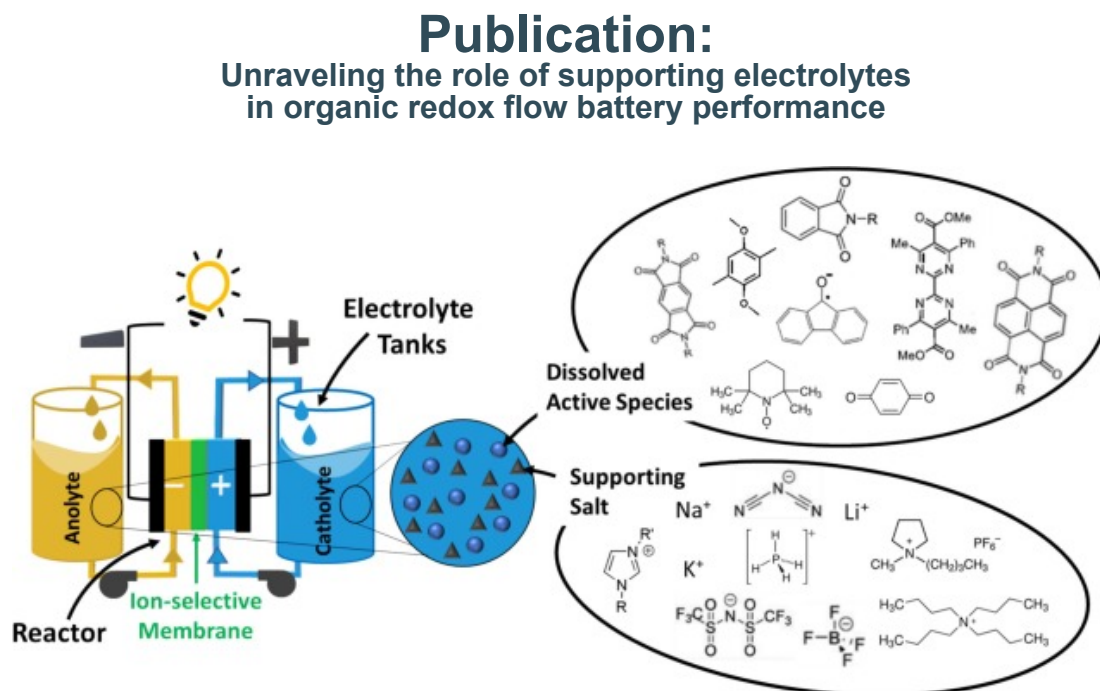


Geovane Arruda de Oliveira, David E. Sanchez, Alexander J. Sredenshek, Andres Fest, Moonjoo Kim, Carla Santana Santos, Mauricio Terrones, Wolfgang Schuhmann, Daniel Grasseschi

The publication with the full title of "Insight into Mo₂C Nanoplates Growth by Means of Scanning Electrochemical Cell Microscopy for High-Resolution Electrocatalytic Hydrogen Evolution Activity Mapping" examines the hydrogen

evolution reaction (HER) activity of α -Mo₂C nanoplates with controlled sizes synthesized by chemical vapor deposition.

The full publication is available here

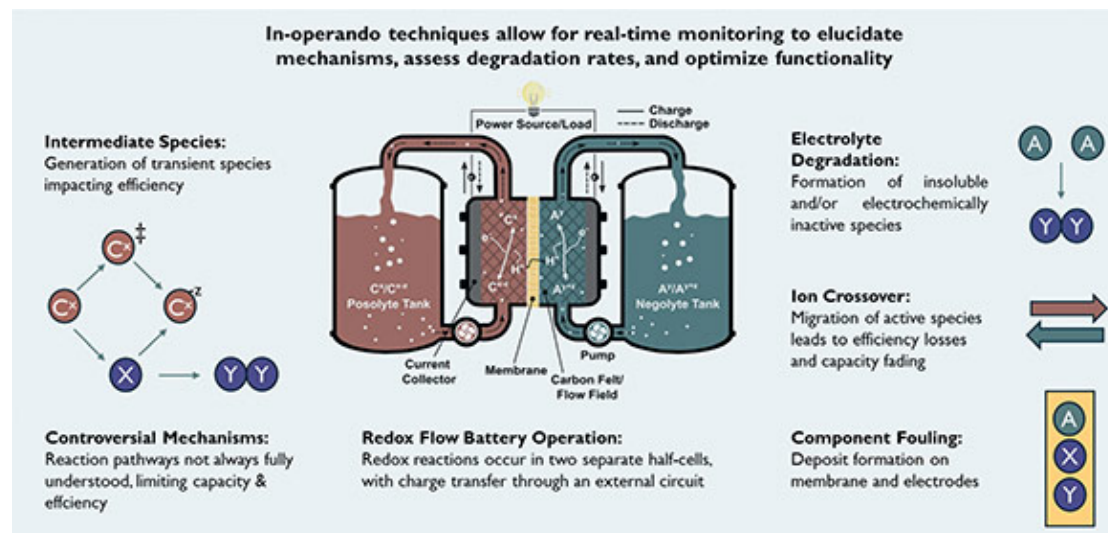


Paula Navalpotro, Andreas Mavrantoukakis, Rebeca Marcilla

This review highlights how the choice of supporting electrolyte - solvent and salt - critically influences the performance, stability, and efficiency of organic redox flow batteries, underscoring the need for interdisciplinary research to optimize these systems.

The full publication is available here

Publication:
Monitoring chemical processes in redox flow batteries employing in situ
and in operando analyses



Ahmad Alem, Pooria Poormehrabi, Jonas Lins, Lukas Pachernegg-Mair, Christine Bandl, Virginia Ruiz, Edgar Ventosa, Stefan Spirk, Torsten Gutmann

MeBattery and the **VanillaFlow** project, with which MeBattery has cooperated in MDLES portfolio, have published a joint publication in *Energy and Environmental Science*. The publication outlines how in situ and in operando analytical techniques enable real-time monitoring of electrochemical processes in redox flow batteries, providing critical insights into reaction mechanisms, electrolyte behavior, and performance optimization.

The full publication is available [here](#)

MeBattery at the 76th ISE Annual Meeting



IMDEA Energy and **Ruhr University Bochum** participated in the 76th ISE Annual Meeting on 7-12 September 2025 in Mainz, Germany. They gave two oral presentations and showed one poster with MeBattery results.

[Read about the 76th ISE Annual Meeting](#)

We hope that you enjoyed this exciting journey with us!



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EURICE - European Research and Project Office GmbH

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