

# Advanced Battery Power – Kraftwerk Batterie

Automotive and Energy Supply Solutions – Lösungen für Automobil und Energieversorgung



## Termin

**Mi. 02.04.2025, 10:00 Uhr –**  
**Do. 03.04.2025, 16:45 Uhr**

## Veranstaltungsort

Eurogress Aachen  
Monheimsallee 48  
52062 Aachen

## Teilnahmegebühren

|                          |                                                   |
|--------------------------|---------------------------------------------------|
| <b>Präsenz-Teilnahme</b> | 1.465,00 €*<br><a href="#">Für HDT-Mitglieder</a> |
| <b>Online-Teilnahme</b>  | 1.095,00 €*<br><a href="#">Für HDT-Mitglieder</a> |



Weitere Informationen und die Möglichkeit zur Online-Buchung **Ihrer Teilnahme finden Sie auf der [Veranstaltungs-Webseite](#).**

Stand: 04.11.2025, 09:35 Uhr

## Advanced Battery Power – Kraftwerk Batterie

Die internationale Konferenz [Advanced Battery Power](#) der Kooperationspartner HDT, CARL & ISEA (RWTH Aachen), MEET Batterieforschungszentrum (Universität Münster) und das Helmholtz Institut bringt Fachleute aus Wissenschaft, Forschung und Entwicklung entlang der gesamten Wertschöpfungskette von Batterien und Batterietechnologie zusammen. Aktuellste Forschungsergebnisse und Informationen aus erster Hand und branchenübergreifende Inhalte über alle Aspekte der Batterieentwicklung, der Batterieproduktion und des Batterieeinsatzes hinweg, machen den Anspruch und den Reiz der Fachtagung aus. Internationale Keynotes bieten zusätzliche Einblicke in die neuesten Entwicklungen. Tagungssprache ist Englisch.

### **Batterietagung 2025 in Aachen**

Die Batterietagung besteht aus dem deutschsprachigen [Batterietag NRW](#) und der internationalen, englischsprachigen Konferenz [Advanced Battery Power](#). Am 01.04.2025 finden parallel zum Batterietag NRW [fachspezifische Online-Seminare](#) statt. Eine begleitende Produktausstellung findet an allen drei Tagen statt.

### **Zum Thema**

Lithium-Ionen-Zellen: Materialien und Verbesserung der Eigenschaften  
Jenseits und neben der Lithium-Ionen-Technologie  
Batterien für 12-V- und 48-V-Stromversorgungssysteme  
Batteriesysteme  
Automobil und mobile Anwendungen  
Stationäre Batteriesysteme  
Produktion, 2nd Life und Recycling von Batteriesystemen und Zellen Märkte

### **Zielsetzung**

Zur 17. internationalen Fachtagung treffen sich Wissenschaftler, Entwickler und Ingenieure aus allen Bereichen des Wertschöpfungskreislaufs von Batterien im Eurogress Aachen, um sich über die neuesten Ergebnisse im Bereich Batterieforschung und Batterieanwendungen auszutauschen.

## Programm

03.04.2025

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17:30–19:00      Guided tours through the CARL  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Exclusively for participants. The number of participants is limited. Online registration (free of charge) is...

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17:00–17:00      Bus departure in front of the congress building  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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16:45–17:00      End of conference  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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16:30–16:45      Synthesis and Outlook  
**Katharina Hill**  
HDT  
**P&K Chat\_K2**  
**P&K Chat\_Brüssel**  
**P&K Chat\_Europa**  
**Katharina Röder**  
HDT  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Dirk Uwe Sauer**  
RWTH Aachen

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16:25–16:30      Short break  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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16:05–16:25      ProZell Cost Model: A Comprehensive Approach to Pricing and Optimizing Battery Cell Production  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Kashfia MahinTechnische Universität Braunschweig Session chairs: Dr. Volker Hennige | Dr. Alexander Warnecke

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15:45–16:05 | <p>Physics-based learning for advanced battery modeling</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>PhD Yicun HuangChalmers University of Technology Session chairs: Dr. Volker Hennige   Dr. Alexander Warnecke</p>                               |
| 15:25–15:45 | <p>Cloud-based Battery Analytics - Big data and data science improving Safety, and State of Health (SoH)</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Gerhard SchagerlAVL List GmbH Session chairs: Dr. Volker Hennige   Dr. Alexander Warnecke</p> |

16:05–16:25 Recycling of electrode production scrap: Development of dry, solvent-based and thermal mechanical processes for direct recycling

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Marco Ahuis, M.Sc.TU Braunschweig, Institut für Partikeltechnik Session chairs: Prof. Dr. Jens Tübke | Prof....

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15:05–15:25 POLIDEMO: an innovative mechanical-electrochemical model for lithium-ion batteries degradation

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Davide ClericiPolitecnico di Torino Session chairs: Dr. Volker Hennige | Dr. Alexander Warnecke

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15:45–16:05      Sustainable Lithium Iron Phosphate (LFP) Battery Recycling via Hydrometallurgical Water Leaching and Precipitation  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Ayesha Tasawar|ME - Process Metallurgy and Metal Recycling, Institute and chair at RWTH Aachen University...

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15:25–15:45      SisClever process: simultaneous recovery of metals from electronic waste to high purity and high concentration via solvent extraction  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Marc Philippart de Foy|Université de Liège Session chairs: Prof. Dr. Jens Tübke | Prof. Dr....

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15:05–15:25      Fluorines in the battery supply chain  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Ph.D. Jacqueline Edgel Imperial College London Session chairs: Prof. Dr. Jens Tübke | Prof. Dr. Heiner...

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16:05–16:25      Characterisation of structural and chemical changes from the macroscopic to the nanoscopic scale of Li-ion batteries for a battery ageing database  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Dr. Ute Golla-Schindler University Aalen Session chairs: Prof. Gregory Offer | Prof. Dr. Egbert Figgemeier

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15:45–16:05      How Electrolytes Shape Battery Degradation: An experimental and modeling work  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
PhD Jingwen Weng | Imperial College London Session chairs: Prof. Gregory Offer | Prof. Dr. Egbert Figgemeier

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15:25–15:45      Multi-scale battery degradation – Exploring coupled electrochemical and mechanical effects  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
PhD MEng Billy Wulmer | Imperial College London Session chairs: Prof. Gregory Offer | Prof. Dr. Egbert...

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15:05–15:25      10 Years of Uninterrupted Shelf Storage: How Long-Term Calendar Aging Affects the Performance of Commercial LFP/C Cells

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Veronika Vachenauer, M.Sc. Technical University of Munich Session chairs: Prof. Gregory Offer | Prof. Dr. Egbert...

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14:05–15:05      Coffee break | Exhibition | Poster Session 4 (even poster numbers)

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:45–14:05 | <p>Designing a Setup to Study the Influence of Pressure on Solid-State Battery Materials at Electrode Level</p> <p><b>Katharina Hill</b><br/>HDT</p> <p><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.</p> <p><b>Katharina Röder</b><br/>HDT</p> <p><b>Sascha Bauer</b><br/>HdT</p> <p><b>Vanessa Wach</b><br/>Haus der Technik e. V.</p> <p><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Tejaswini Kumbharde, M.Sc.Fraunhofer-Institut für Chemische Technologie (ICT) Session chairs: Dr. Holger Althues   Dr. Jörg...</p> |
| 13:25–13:45 | <p>All solid-state battery with dry process composite cathode design</p> <p><b>Katharina Hill</b><br/>HDT</p> <p><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.</p> <p><b>Katharina Röder</b><br/>HDT</p> <p><b>Sascha Bauer</b><br/>HdT</p> <p><b>Vanessa Wach</b><br/>Haus der Technik e. V.</p> <p><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>PhD Fu-Ming WangNational Taiwan University of Science and Technology Session chairs: Dr. Holger Althues  ...</p>                                                          |

13:05–13:25 High-energy solid-state batteries by production of mechanically stabilized, thin SE–films in a roll-to-roll process and investigation of their long-term stability

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Maria RosnerTU Dresden / Fraunhofer IWS Session chairs: Dr. Holger Althues | Dr. Jörg Huslage

12:45–13:05 a-SiNx as a Next Generation Anode Material for Li-Ion and Solid-State Batteries

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Moritz LoewenichUniverstiy Duisburg-Essen Session chairs: Dr. Holger Althues | Dr. Jörg Huslage

13:45–14:05      Diverse or unified? Cell format & capacity progression with design analysis of newly released cells in Asia

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Luke HuElectroder Session chairs: Prof. Dr. Petr Novák | Dr. Falko Schappacher

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13:25–13:45      Tailoring Electrolytes For High-Power High-Load Li-Ion Extruded Electrode Batteries

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Dr. Christian KrauseAsahi Kasei Europe GmbH Session chairs: Prof. Dr. Petr Novák | Dr. Falko...

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13:05–13:25      Achieving Stable Cycling Performance of Silicon Anode for Lithium-Ion Batteries by Optimized Electrochemical Pre-Lithiation

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Shiho HondaForschungszentrum Jülich GmbH HIMS/IMD-4, RWTH Aachen ISEA Session chairs:  
Prof. Dr. Petr Novák |...

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12:45–13:05      On the challenge of developing scalable and sustainable Aluminum-Ion batteries: From Active to Passive Materials

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Martin EckertFraunhofer-Institute for Integrated Systems and Device Technology IISB Session chairs: Prof. Dr. Petr Novák...

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13:45–14:05 Individual cell temperature online monitoring with low installation effort and high robustness

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Stephan Friedl | Airbus Session chairs: Dr. Eberhard Meißner | Dr. Dominik Schulte

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13:25–13:45 Towards Reliable BMS Algorithms: Overcoming Challenges in State Estimation

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Franziska Berger | Institut für Stromrichtertechnik und Elektrische Antriebe, RWTH Aachen University  
Session chairs: Dr. Eberhard Meißner...

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:05–13:25 | <p>Lithium-ion Battery Diagnostics with Mechanical Measurements</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <hr/> <p>Ph.D. Davide Clerici Politecnico di Torino Session chairs: Dr. Eberhard Meißner   Dr. Dominik Schulte</p>                               |
| 12:45–13:05 | <p>Opportunities for online diagnostics of safety critical ageing conditions: What about OCV-ICA?</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <hr/> <p>Dr. Preben J. S. VielFE - Institute for Energy Technology Session chairs: Dr. Eberhard Meißner...</p> |

11:00–12:45      Poster Session 3 (uneven poster numbers) | Exhibition | Lunch Break

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

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10:25–11:00      The Role of Control in the Clean Energy Revolution: the Lithium-Ion Battery Case Study

**Katharina Hill**

HDT

**P&K Chat\_K2**

**P&K Chat\_Brüssel**

**P&K Chat\_Europa**

**Katharina Röder**

HDT

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

**Ph.D. Simona Onori**

Stanford University Green Earth Sciences Bldg

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10:10–10:25      Coffee break and Exhibition  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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09:35–10:10      R&D introduction from CATL  
**Katharina Hill**  
HDT  
**P&K Chat\_K2**  
**P&K Chat\_Brüssel**  
**P&K Chat\_Europa**  
**Katharina Röder**  
HDT  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.  
**Dr. Xiaojian Wang**  
Contemporary Amperex Technology GmbH

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09:00–09:35 From fundamental materials science and physics to novel earth-abundant cathode materials for li-ion batteries

**Katharina Hill**

HDT

**P&K Chat\_K2**

**P&K Chat\_Brüssel**

**P&K Chat\_Europa**

**Katharina Röder**

HDT

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Gerbrand Ceder**

Lawrence Berkeley National Laboratory

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08:45–09:00 Welcome to the second day

**Katharina Hill**

HDT

**P&K Chat\_K2**

**P&K Chat\_Brüssel**

**P&K Chat\_Europa**

**Katharina Röder**

HDT

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. Martin Winter**

Universität Münster

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02.04.2025

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19:00–21:30      Evening reception  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
The evening event will take place in the Coronation Hall of Aachen City Hall, Markt,...

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10:00–10:10      Welcome  
**Katharina Hill**  
HDT  
**P&K Chat\_K2**  
**P&K Chat\_Brüssel**  
**P&K Chat\_Europa**  
**Katharina Röder**  
HDT  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Dirk Uwe Sauer**  
RWTH Aachen

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|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15:35–15:55 | <p>RLPGen: A method to synthesize Representative Battery Load Profiles</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <hr/> <p>Konrad KatzschkeVolkswagen AG Session chairs: Prof. Dr. Stefano Passerini   Dr. Peter Pilgram</p>                                                          |
| 15:35–15:55 | <p>The Rolling Intrinsic Strategy in High-Frequency Intraday Electricity Trading for a Battery as a Dynamic Program</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <hr/> <p>David SchaureckerETH Zurich Session chairs: Prof. Dr. Hans-Georg Schweiger   Dr.-Ing. Michael Stapelbroek</p> |

15:35–15:55      Evaluation of Optimal Experimental Design applied to real-world Li-ion Battery Aging Study  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Prof. Oliver BohlenInstitute for Sustainable Energy Systems Session chairs: Prof. Dr.-Ing. Andreas Jossen | Prof....

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10:10–10:15      Greetings  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.

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10:15–10:20      Greetings  
**Katharina Hill**  
HDT  
**P&K Chat\_K2**  
**P&K Chat\_Brüssel**  
**P&K Chat\_Europa**  
**Katharina Röder**  
HDT  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.  
**Dr. Jan Henning Behrens**  
Bundesministerium für Bildung und Forschung

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10:20–10:55      Predicting the lifetime of lithium ion batteries: understanding and modelling degradation  
**Katharina Hill**  
HDT  
**P&K Chat\_K2**  
**P&K Chat\_Brüssel**  
**P&K Chat\_Europa**  
**Katharina Röder**  
HDT  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Sascha Bauer**  
HdT  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Gregory Offer**  
Imperial College London

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15:55–16:15      Machine learning-based lifelong estimation of lithium plating potential: A path to health-aware fastest battery charging

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Yizhou Zhang, M.Sc.Chalmers University of Technology Session chairs: Prof. Dr. Stefano Passerini | Dr. Peter...

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15:55–16:15      Coupling of offshore & offgrid wind power & PtX-processes, supported by a MWh-scale battery for safety, stand-by energy & PtX-process support

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Willi PetersDECHEMA-Forschungsinstitut Session chairs: Prof. Dr. Hans-Georg Schweiger | Dr.-Ing. Michael Stapelbroek

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15:55–16:15      Monte Carlo method for assessing the uncertainty in battery models – measurement accuracy and fitting process limiting design processes and battery management systems

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Dr.-Ing. Simon SchwunkPorsche AG Session chairs: Prof. Dr.-Ing. Andreas Jossen | Prof. Dr.-Ing. Ulrike Krewer

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13:15–13:35      Solvent-free direct recycling of NMC cathode material from end-of-life Li-ion batteries

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Max LarryUniversity of Liege Session chairs: Prof. Maria Rosa Palacin Peiró | Philipp Wunderlich

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13:15–13:35 CT-Based Quality Control for Prismatic Cells  
**Katharina Hill**  
 HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
 Haus der Technik e. V.  
**Katharina Röder**  
 HDT  
**Sascha Bauer**  
 HdT  
**Vanessa Wach**  
 Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
 Haus der Technik e.V.  
 Daniel EvansTechnische Universität Berlin Session chairs: Prof. Dr. Heiner Hans Heimes | Prof. Jens Tübke

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13:15–13:35 Physics-based model approach for optimization of the formation step  
**Katharina Hill**  
 HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
 Haus der Technik e. V.  
**Katharina Röder**  
 HDT  
**Sascha Bauer**  
 HdT  
**Vanessa Wach**  
 Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
 Haus der Technik e.V.  
 Elixabete AyerbeCIDETEC Energy Storage Session chairs: Horst Mettlach | Dr. Thomas Soczka-Guth

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16:15–16:35      Multi-analytical characterization of temperature dependent aging mechanisms in commercial Lithium-ion batteries with Si/graphite anodes

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Dr. -Ing Jihed AyariHelmholtz Institute Ulm for Electrochemical Energy Storage (HIU) Session chairs:  
Prof. Dr....

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16:15–16:35      ISEA battery revenue index - towards transparent estimation of trading revenues

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Jonas BruckschISEA Session chairs: Prof. Dr. Hans-Georg Schweiger | Dr.-Ing. Michael Stapelbroek

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16:15–16:35 | <p>Simulating the Impact of Electrolyte Motion on Li-Ion Battery Performance</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Marcel RoggeTechnical University of Munich (TUM) Session chairs: Prof. Dr.-Ing. Andreas Jossen   Prof. Dr.-Ing....</p> |
| 13:35–13:55 | <p>Insights into the mechanism of carbon nanotubes in silicon-based anodes</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Dr. Ziyang HeTsinghua University Session chairs: Prof. Maria Rosa Palacin Peiró   Philipp Wunderlich</p>                 |

13:35–13:55 Challenges in cell manufacturing: Why are Western players struggling so much while Asian competition is slowly taking over?

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Markus HackmannP3 Group Session chairs: Prof. Dr. Heiner Hans Heimes | Prof. Jens Tübke

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13:35–13:55 How to design a zero-degradation battery: compensating for loss of lithium inventory in LFP cells with LFO additives

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Sunil Kumar RawatImperial College London Session chairs: Horst Mettlach | Dr. Thomas Soczka-Guth

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10:55–11:30      Leveraging LCA for sustainable batteries – a chance to accelerate

**Katharina Hill**

HDT

**P&K Chat\_K2**

**P&K Chat\_Brüssel**

**P&K Chat\_Europa**

**Katharina Röder**

HDT

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

**Dr. Hans Beyer**

Webasto Group Battery Systems Business Development

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16:35–16:55      Unveiling Behavioral Patterns in BEV Operation

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Robin SaamVolkswagen AG Session chairs: Prof. Dr. Stefano Passerini | Dr. Peter Pilgram

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16:35–16:55      How the main aging mechanism in 1st life usage influences the safety in 2nd life applications  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Dr. rer. nat. Thomas WaldmannZSW – Zentrum für Sonnenenergie- und Wasserstoff-Forschung,  
Baden-Württemberg Session chairs: Prof....

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16:35–16:55      Global Aging Behavior and Local Aging in Lithium-Ion Batteries due to Inhomogeneous Temperature Distribution  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Lisa CloosKarlsruhe Institute of Technology (KIT) Session chairs: Prof. Dr.-Ing. Andreas Jossen |  
Prof. Dr.-Ing....

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|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:55–14:15 | <p>Investigation of localized high-concentration electrolyte-induced interphases in lithium metal batteries</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Dominik WeintzHelmholtz-Institut Münster, FZ Jülich Session chairs: Prof. Maria Rosa Palacin Peiró<br/>  Philipp Wunderlich</p>                  |
| 13:55–14:15 | <p>Strategies for an industry-suited production process for LIB anodes with a high content of pre-lithiated SiO-C</p> <p><b>Katharina Hill</b><br/>HDT<br/><b>P&amp;K Chat_Europa</b><br/><b>P&amp;K Chat_Brüssel</b><br/><b>P&amp;K Chat_K2</b><br/><b>Dipl.-Ing. Bernd Hömberg</b><br/>Haus der Technik e. V.<br/><b>Katharina Röder</b><br/>HDT<br/><b>Sascha Bauer</b><br/>HdT<br/><b>Vanessa Wach</b><br/>Haus der Technik e. V.<br/><b>Prof. Dr. rer. nat. Werner Klaffke</b><br/>Haus der Technik e.V.</p> <p>Dr. rer. nat. Alice HoffmannZentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg Session chairs: Prof. Dr. Heiner...</p> |

13:55–14:15      Investigation of a charging anomaly in aged commercial NCA / C-Si lithium-ion cells  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Timo RuewaldBatterieIngenieure GmbH Session chairs: Horst Mettlach | Dr. Thomas Soczka-Guth

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16:55–17:10      Coffee break and Exhibition  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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14:15–14:35      Enhancing battery safety in Sodium-Ion Batteries: Introduction of a novel additive to suppress sodium plating and improve Lifespan

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Jonathan BätthgeE-Lyte Innovations GmbH Session chairs: Prof. Maria Rosa Palacin Peiró | Philipp Wunderlich

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14:15–14:35      The battery passport: from regulatory compliance to a circular economy enabler

**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

Dr.Ing. Francesco MaltoniFEV Europe GmbH Session chairs: Prof. Dr. Heiner Hans Heimes | Prof. Jens Tübke

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14:15–14:35      Influence of Formation-Temperature on Cell Performance and Degradation  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.  
  
Sebastian KlickISEA, RWTH Aachen Session chairs: Horst Mettlach | Dr. Thomas Soczka-Guth

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11:30–13:15      Poster Session 1 (even poster numbers) | Exhibition | Lunch Break  
**Katharina Hill**  
HDT  
**P&K Chat\_Europa**  
**P&K Chat\_Brüssel**  
**P&K Chat\_K2**  
**Dipl.-Ing. Bernd Hömberg**  
Haus der Technik e. V.  
**Katharina Röder**  
HDT  
**Sascha Bauer**  
HdT  
**Vanessa Wach**  
Haus der Technik e. V.  
**Prof. Dr. rer. nat. Werner Klaffke**  
Haus der Technik e.V.

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17:10–17:45 Battery Digitalization with Artificial Intelligence

**Katharina Hill**

HDT

**P&K Chat\_K2**

**P&K Chat\_Brüssel**

**P&K Chat\_Europa**

**Katharina Röder**

HDT

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr.-Ing. Weihang Li**

RWTH Aachen

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09:00–10:00 Registration

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

**Vanessa Wach**

Haus der Technik e. V.

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14:35–15:35 Coffee break | Exhibition | Poster Session 2 (uneven poster numbers)

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

17:45–17:50 End of the First Day

**Katharina Hill**

HDT

**P&K Chat\_Europa**

**P&K Chat\_Brüssel**

**P&K Chat\_K2**

**Dipl.-Ing. Bernd Hömberg**

Haus der Technik e. V.

**Katharina Röder**

HDT

**Sascha Bauer**

HdT

**Vanessa Wach**

Haus der Technik e. V.

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

## Referenten

KH

**Katharina Hill**

HDT

Eventmanagement

PC

**P&K Chat\_K2**

PC

## P&K Chat\_Brüssel

PC

## P&K Chat\_Europa

KR

## Katharina Röder

HDT

DH

## Dipl.-Ing. Bernd Hömberg

Haus der Technik e. V.

SB

## Sascha Bauer

HdT

Veranstaltungsplanung und Betreuung

PO

## Ph.D. Simona Onori

Stanford University Green Earth Sciences Bldg

### **Associate Professor of Energy Science and Engineering, Stanford University**

Simona Onori is an Associate Professor in Energy Science and Engineering at Stanford University, where she also holds a courtesy appointment in Electrical Engineering. She is the Director of the Stanford Energy Control Lab and a Senior Fellow at the Precourt Institute for Energy at Stanford. She is an SAE Fellow, Simona serves as the Editor-in-Chief of the SAE International Journal of Electrified Vehicles and was a Distinguished Lecturer for the IEEE Vehicular Technology Society from 2020-2022. She has been a Senior Member of the IEEE since 2015. Simona's work has earned her several prestigious awards, including the 2020 U.S. Department of Energy Clean Energy Education & Empowerment (C3E) Award in the Research category, the 2019 Board of Trustees Award for Excellence from Clemson University, and the 2017 NSF CAREER Award. Additionally, she received the 2018 Global Innovation Contest Award from LG Chem and the SAE Ralph R. Teetor Educational Award. As an advisor, her students have received the 2017 IEEE CCTA Best Paper Award and the 2021 IEEE Transaction on Control System Technology Outstanding Paper Award.

Simona holds a Laurea Degree in Computer Science from the University of Rome "Tor Vergata," an M.S. in Electrical Engineering from the University of New Mexico, and a PhD in Control Engineering from the University of Rome "Tor Vergata."

Her research centers on the modeling, control, and estimation of energy systems, with a particular focus on hybrid electric vehicles and electrochemical processes like battery technologies. Simona has co-authored a book and several book chapters on hybrid vehicles and has more than 200 publications in peer-reviewed journals and conference proceedings. She is a Senior Member of IEEE, past chair of the IEEE CSS Technical Committee on Automotive Controls, and vice-chair of the IFAC Technical Committee on Automotive Controls TC 7.1.

DW

## Dr. Xiaojian Wang

Contemporary Ampere Technology GmbH

PC

## Prof. Gerbrand Ceder

Lawrence Berkeley National Laboratory

### UC Berkeley / Lawrence Berkeley National Laboratory

Gerbrand Ceder is the Samsung Distinguished Professor of Engineering at UC Berkeley and a Senior Faculty Scientist at LBNL where he combines theory, computation, machine learning, and experiments to develop novel materials for energy storage. He has published over 550 papers with over 130,000 citations and a Hirsch index of 180. He holds more than 50 US and foreign patents. He is a member of the National Academy of Engineering of the US, the Royal Flemish Academy of Belgium for Science and The Art, and the American Academy for the Arts and Sciences. He is a Fellow of MRS, APS, TMS, and ECS, and has received awards from the Electrochemical Society, the Materials Research Society, the Metals Minerals and Materials Society, and the International Battery Association. He is a scientific advisor to multiple companies in the energy storage and materials design space. He leads the Department of Energy program on Earth-Abundant cathode materials (DRX+) and was active in formulating the US Materials Genome Initiative.

PW

## Prof. Dr. Martin Winter

Universität Münster

University of Münster | FZ Jülich & MEET | Helmholtz Institute Münster

PL

## Prof. Dr.-Ing. Weihan Li

RWTH Aachen

### Center for Ageing, Reliability and Lifetime Prediction of Electrochemical and Power Electronic Systems (CARL), RWTH Aachen

#### Institute for Power Electronics and Electrical Drives (ISEA), RWTH Aachen University

Prof. Dr.-Ing. Weihan Li is a Junior Professor and the head of the "Artificial Intelligence and Digitalization for Batteries" research group at the Center for Aging, Reliability, and Lifetime Prediction of Electrochemical and Power Electronic Systems (CARL) at RWTH Aachen University. He earned his Ph.D. with honors in Electrical Engineering and Information Technology from RWTH Aachen University in 2021, following a Master's degree in Automotive Engineering and Transport from RWTH Aachen in 2017 and a Bachelor's degree in Automotive Engineering from Tongji University in 2014. Prof. Li has conducted research at Imperial College London, the Massachusetts Institute of Technology, and in the industry. He has received numerous awards, including the Highly Cited Researchers 2024 recognition from Clarivate, the BMBF BattFutur Junior Research Group Grant (2.2 million euros), the Körber Foundation's German Study Award, the Reichart Prize from the Academy of Non-profit Sciences in Erfurt, the vgbe Innovation Award, the Battery Young Research Award, the RWTH Innovation Award, the Theodore von Kármán Fellowship, and the Umbrella Award, among others.

DB

## Dr. Hans Beyer

Webasto Group Battery Systems Business Development

Head of Cell and Module

### Webasto Group

As Head of Cell and Module in the division Electrification/Batteries at Webasto Group, Dr. Hans Beyer leads the EU development team for system integration of battery cells considering cell technology and safety, as well as mechanical, electric and thermal aspects.

After receiving his PhD in Chemistry from Technical University of Munich (TUM) in 2010, he pursued a postdoc in Li-Air, Li-S and Li-Ion battery research at the TUM Chair of Technical Electrochemistry (Prof. Dr. H.A. Gasteiger) until 2018. In parallel he co-founded a startup developing and producing custom made skis. He joined Webasto Group in 2018 as Development Engineer Cell and Module and became Senior Expert for Battery Cell Technology and Integration in 2021 before taking over his current assignment in 2022. He is author of 18 scientific publications.

PO

**Prof. Gregory Offer**

Imperial College London

Imperial College London

DB

**Dr. Jan Henning Behrens**

Bundesministerium für Bildung und Forschung

PS

**Prof. Dr. rer. nat. Dirk Uwe Sauer**

RWTH Aachen

RWTH Aachen University | ISEA &amp; FZ Jülich | Helmholtz Institute Münster | Beirat

PK

**Prof. Dr. rer. nat. Werner Klaffke**

Haus der Technik e.V.

Geschäftsführender Vorstand

Haus der Technik e. V., Essen

PK

**Prof. Dr. Werner Klaffke**

Haus der Technik

Geschäftsführender Vorstand

VW

**Vanessa Wach**

Haus der Technik e. V.

## Hinweise

Tagungssprache ist Englisch.

Es gelten Sonderkonditionen für Hochschulangehörige und Studierende ohne Abschluss. Bei der Anmeldung zum Studentenpreis wird ein Nachweis benötigt (z. B. eine Semesterbescheinigung).