



## 4<sup>th</sup> online Public Workshop

### *Advanced battery testing: nano-electrochemistry, metrological cell EIS and pilot line tests*

Free virtual workshop on Nov 16, 2022 (2 pm CET)

Login data (Zoom) will be sent to registered participants only

#### Organizers:

Chao Zhang & Gabriela Ventura Silva (BLB/TUBS, Germany)

Ferry Kienberger (Keysight Technologies, Austria)

Broadband frequency electrochemical characterization techniques from nano- to macroscale and transferring them to in-line testing and pilot lines are at the heart of NanoBat. This is the 4<sup>th</sup> workshop in a series focusing on nano-electrochemistry, metrological cell test, and pilot-line applications. Presenters are from University and Research Centers, as well as from Large Industry and OEM.

In this 4<sup>th</sup> workshop we are focusing on **three main parts:**

1. Nano-electrochemistry of aging related processes
2. Metrology Cell Characterization using EIS
3. Pilot Line Cell Testing Methods & Beyond Lithium

If you are interested to attend, please register for the workshop on the [NanoBat website](#).

Administrative contact: Gerald Kada [gerald.kada@keysight.com](mailto:gerald.kada@keysight.com)



Wednesday, November 16, 2022 14:00 – 17:20 CET		
Time	Topic	Speaker
14:00-14:15	<b>Welcome by the Organizers</b>	<b>Gabriela Ventura Silva</b> (TU Braunschweig) & <b>Ferry Kienberger</b> (Keysight)
14:15-14:35	<b>Keynote:</b> Battery research in Germany and at TU Braunschweig	<b>Nicolas von Drachenfels</b> (TU Braunschweig)
<b>Session I – Nano-Electrochemistry</b>		<b>Chair: Nawfal AZR Smith</b>
14:35-14:55	<b>Talk:</b> The scanning droplet cell system for investigating the properties of the solid electrolyte interphase (SEI)	<b>Edgard Ventosa</b> (University of Burgos)
14:55-15:15	<b>Talk:</b> Nanoscale electrochemical impedance spectroscopy	<b>Georg Gramse</b> (University of Linz)
15:15-15:25	<b>Q&amp;A</b>	<b>All</b>
<b>Session II – Metrological Cell Characterization</b>		<b>Chair: Chao Zhang</b>
15:25-15:45	<b>Talk:</b> Cell electrochemical impedance spectroscopy (EIS) round robin	<b>Arnd Leike</b> (BMW Munich)
15:45-16:05	<b>Talk:</b> Metrological uncertainty for EIS	<b>Amin Moradpour</b> (Keysight Austria)
16:05-16:15	<b>Q&amp;A</b>	<b>All</b>
<b>Session III – Pilot Line Cell Testing</b>		<b>Chair: Gerald Kada</b>
16:15-16:35	<b>Talk:</b> Advanced investigation of the electrolyte-Mg anode interphase for the development of Mg-ion batteries	<b>Martina Romio</b> (Austrian Institute of Technology)
16:35-17:00	<b>Talk:</b> Quality control in the lamination of electrodes and separators for LiBs <b>Video Demo:</b> BLB virtual tour - pilot line as battery production research center	<b>Chao Zhang</b> (TU Braunschweig)
17:00-17:10	<b>Q&amp;A</b>	<b>All</b>
17:10-17:20	<b>Discussion &amp; meeting closure</b>	<b>All</b>
<b>End of workshop</b>		

**Inscription to the workshop is free of charge.**

