

## Horizon 2020 LC-BAT-5 Cluster Symposium on Next-Generation Lithium-Ion Batteries

The symposium is organised by the projects of the LC-BAT-5 cluster – SeNSE, 3beLiEVe, COBRA and HYDRA. It will take place in the framework of the [Swiss Battery Days 2022](#) and offers you not only the opportunity to meet the LC-BAT-5 Cluster partners in person, but also to exchange ideas with the European battery community from research and industry.

**When:** 31 August 2022, 13:30-17:10

**Where:** Empa Akademie, Duebendorf, Switzerland ([venue](#))

**Registration:** Participation at the Horizon 2020 LC-BAT-5 Cluster Symposium is free of charge. If you would like to attend, please send a short email to [stephan.fahlbusch@empa.ch](mailto:stephan.fahlbusch@empa.ch) for organisational reasons. You will not receive a confirmation email.

If you would also like to attend the Swiss Battery Days 2022, please register [here](#) (a registration fee applies, also for SeNSE and LC-BAT-5 Cluster partners).

### Programme

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**13:30 Welcome address Horizon 2020 LC-BAT-5 battery project cluster session**

Ruben-Simon Kühnel, Empa, SeNSE project

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**13:40 (Invited) A novel carbon material as conductive additives for slurry formulations**

Florian Klunker, Steven D. Lacey, M. Schauer, Francesco Bizzotto, Ruben-Simon Kühnel, Corsin Battaglia, Huntsman Advanced Materials, Nanocomp Technologies Inc., Empa, SeNSE project

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**14:10 Graphite-based anodes with recycled silicon for lithium-ion batteries**

Guiomar Hernandez, Ane Muguruza, Iratxe de Meatz, Jekabs Grins, Gunnar Svensson, Mads Heints, Marthe Emilie M. Buan, Anne-Karin Soiland, Uppsala University, CIDETEC, COBRA project

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**14:25 Pre-lithiation additives for the positive electrode to compensate for active lithium losses in Si-based lithium ion battery cells**

Aurora Gomez-Martin, Maïke Michelle Gnutzmann, Egi Adithma, Lars Frankenstein, Bastian Heidrich, Martin Winter, Tobias Placke, MEET, University of Münster, Helmholtz-Institute Münster, Forschungszentrum Jülich, SeNSE project

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**14:40 Multifunctional ethoxy(pentafluoro)cyclotriphosphazene additive enables safe carbonate electrolytes for silicon-graphite/nickel-rich NMC lithium-ion batteries**

Sufu Liu, Gerrit Homann, Rabeb Grissa, Konstantin Egorov, Yuanye Huang, Corsin Battaglia, Ruben-Simon Kühnel, Empa, SeNSE project

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**14:55 Title tba**

3beliEVe project

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**15:10 Coffee and exhibition**

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**15:40 Temperature-driven chemical segregation and doping in cobalt-free lithium-rich layered oxides and its influence on electrochemical performance**

Kunkanadu Rajappa Prakasha, Jekabs Grins, Aleksander Jaworski, Thomas Thersleff, Gunnar Svensson, Leif Olav Josang, Anne Dalager Dyril, Andreas Paulus, Dries De Sloovere, Jan D'Haen, Marlies K. Van Bael, An Hardy, Hemesh Avireddy, Joan Roman Morante, Jordi Jacas Biendicho, IREC, Stockholm University, Ceramic Powder Technology, Hasselt University, Imec, COBRA project

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**15:55 Environment friendly water-based cathode production from cobalt-free lithium-rich layered oxides for pouch cells testing**

Hongmei Wang, Vassilios Siozios, Reinhard Mörtel, Andreas Würsig, Fraunhofer ISIT, COBRA project

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**16:10 High-areal-capacity nickel-rich NMC water-based electrodes with excellent long-term cycling stability**

Yuri Surace, Nicolas Eshraghi, Damian Cupid, AIT, SeNSE project

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**16:25 Title tba**

3beliEVe project

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**16:40 Innovative hybrid high voltage electrodes based on LMNO/LFP materials for lithium ion batteries**

Roberto Colombo, Daniele Versaci, Julia Amici, Silvia Bodoardo, Carlotta Francia, Federico Bella, Nadia Garino, Politecnico di Torino, HYDRA project

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**16:55 Closing remarks**

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**17:10 End of symposium**

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