



# Workshop on battery testing procedures

Wednesday 21<sup>st</sup> of May from 10:00 to 16:00

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The procedures and methods of the lithium ion battery performance and performance degradation testing are not standardized and differ significantly between different research groups. In consequence, different testing procedures can lead to different and sometimes erroneous test results. Thus, a lot of caution and a *priori* knowledge is needed in order to assure on the one hand high quality results and reasonable test time on the other hand.

The goal of this workshop is to discuss, reflect and share the knowledge and experience on different battery testing protocols in the Danish Battery Society.

## Tentative agenda:

- 10:00-11:00 Battery cells' connection methods, battery holders, low resistance cell connection for EIS and internal resistance measurements, battery testing stations, etc.
- 11:00-12:00 Methods for battery cell capacity and OCV and quasi OCV measurements (tempering times, C-rates, pulse lengths, etc.)
- 12:00-13:00 *Lunch*
- 13:00-14:00 Internal resistance and EIS measurements, (tempering times, C-rates, etc.). Abuse tests.
- 14:00-15:00 Battery cells calendar and lifetime testing (optimal test matrices, reference performance test procedures, accelerated lifetime tests, cells allocation for experiments, etc.)
- 15:00-16:00 Thermal characterization of the lithium ion batteries (heat capacity, emissivity, thermal conductivity, entropic heat coefficient, heat generation measurement, battery cell temperature monitoring, temperature sensor placement, etc.)