

Cell design and electrode manufacturing

Date and time: 9 November 2021 – 14:00 - 15:30pm

Electrode and cell production is a multistep and complex topic. A great number of parameters influence the performance, safety, and longevity of assembled cells during the production process. This virtual training aims to give an overview of the steps and possibilities of the electrode and cell production, showing the most important factors of each process step as well as available machines and process variations. This training is beneficial to engineers, chemists, researchers, and scientists interested in or working within the battery field.

In short, this virtual training will focus on the following areas:

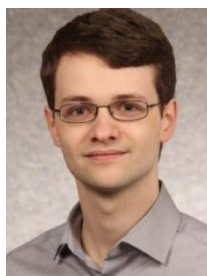
- Slurry production (Dry and wet mixing)
- Electrode production (Coating, Drying, Calendering)
- Stack assembly (Cutting, Stacking, Tab welding)
- Cell manufacturing (Post drying, Pouch preparation, Electrolyte wetting, Sealing)
- Formation and finishing (Formation, Gas removal)

Learning outcomes

This virtual training empowers you to:

- understand the electrode and cell manufacturing process
- make estimates about the influence of process variations on the electrode and cell properties
- develop knowledge about possible machinery for small or larger scale production as well as measurement techniques

Who are the experts?



Robin Moschner has a master's in biological and chemical Engineering at TU Braunschweig. He is currently a research associate at the battery process engineering division of institute for particle technology (iPAT - TU Braunschweig) since 2018. Since 2019 he has the project responsibility of EVOLi²S (Evaluation of the technical and economic advantages of the open-cell module for lithium-ion and lithium-sulphur batteries with regard to stationary and mobile applications).



Dr. Iker Boyano has a PhD in Physical Chemistry, (University of the Basque Country, 2003). He is Research Scientist and Project Manager in lithium ion batteries at CIDETEC for 15 years. Nowadays, his research focuses on Lithium ion and Post lithium ion batteries, as Team Leader in the battery cell manufacturing pilot plant. Dr Boyano has participated in several scientific R&D projects supported by industrial partners and national and international entities. He has authored more than 20 SCI papers.

