Institute for Machine Tools and Indsutrial Management (*iwb*)
TUM School of Engineering and Design
Technical Univeristy of Munich

SA/MA – Roll-to-roll separator fabrication for solid-state batteries

Motivation

At the *iwb* we are investigating the production of high-energy-density solid-state batteries as the successor of the currently dominant lithium-ion battery. Through our collaborative research project with the TUMint Energy Research GmbH and BMW AG, we carefully research all fabrication steps of sulfide-based solid-state batteries for large-scale production.

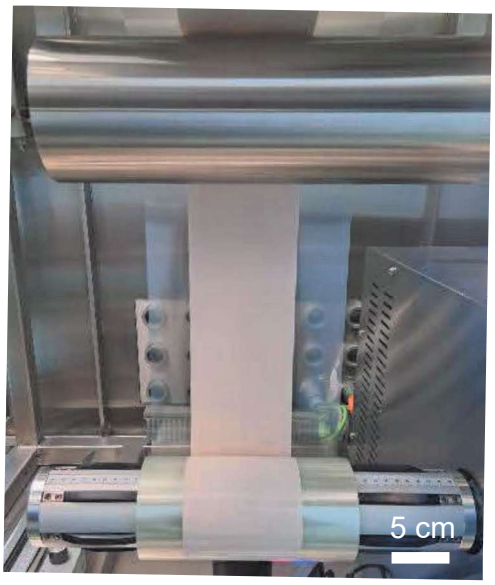

Figure 1: Roll-to-roll coated separator for sulfide-based solid-state batteries

Scope of work

In this work, you will research the coating and drying process of the separator for the sulfide-based solid-state battery. The key parameters of the processes will be identified and carefully analyzed through experimental work at the *iwb* pilot line. The results of this work will allow to identify the most suitable processes for obtaining high-quality components for continuous component production. A close collaboration with industry partners will allow you to gain valuable insights into large-scale production of these batteries.

Profile requirements

- High motivation in developing battery technologies
- Strong initiative and structured and independent work
- Very good English and German skills (spoken and written)
- Previous basic lab experience

Contact

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