## Advanced sintering methods for solid-state batteries

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Among possible future electrochemical storage technologies, all-solidstate batteries raise high expectations in terms of energy density and safety, especially when oxide electrolytes are implemented. On the one hand, high-quality free-standing separators are required to enable highcapacity metallic anodes without catastrophic dendrite growth. On the other hand, the combination of solid electrolyte and compatible active cathode materials into thick composites cathodes with percolating pathways for both ion and electron transports is one requirement of vital importance. The quality of the interfaces is crucial to reduce the cell impedance.

In order to achieve these goals as well as to save energy and time during the processing of battery cell components, innovative sintering methods are required. In the talk, recent work on Field Assisted Sintering Technique / Spark Plasma Sintering (FAST/SPS), Cold Sintering and Ultrafast High-Temperature Sintering will be presented.