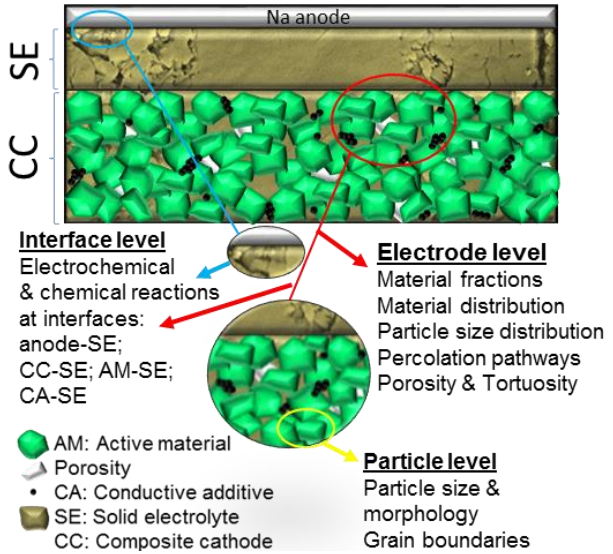
Solid State Na Ion Batteries (Na-SSBs)

Sustainable energy storage solutions require more abundant and less critical materials than lithium for the environment. Therefore, post-Li batteries (e.g. Na-ion batteries) are of great significance. Additionally, the development of solid state batteries (SSBs) could help in overcoming the main problems of conventional batteries containing liquid electrolytes, i.e. (i) safety concerns- explosion or fire due to leakage, (ii) low energy density- impossible to use Li or Na as anode.

In recent years, the IMFAA at Aalen University of Applied Sciences has set up an excellently equipped battery laboratory in which conventional LiB and SSB materials can be analyzed and developed. In research projects following topics are of interest;

- Synthesis of sodium solid electrolyte powders (e.g. Na_3PS_4).
- Manufacturing of ceramic separators and composite cathodes.
- Electrochemical characterization of electrolytes, electrodes and cells.
- Microstructure-property relationship investigations at multiple level (e.g. Electrode level)
- Innovative manufacturing processes for solid state battery components.

https://wp.technologyreview.com/wp-content/uploads/2022/02/tr10-grid-battery-16x9-1.png?fit=1080,607



Zukunftsweisende Forschung in den Batterielaboren am IMFAA

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