

ALISE

H2020 - GA n°666157

Fraunhofer IWS

Holger Althues

Fraunhofer IWS – Institute for Material and Beam Technology

Location: Dresden, Germany

Employees: 200 (+ 210 research assistants)

Budget: 23,7 Mio. €

Lab space: 8400 m²

Aim: Applied R&D



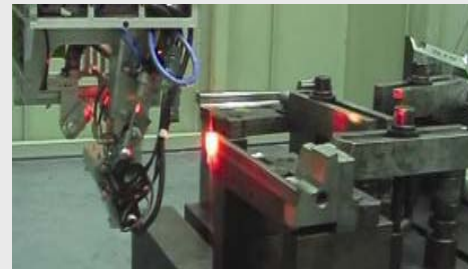
Fraunhofer IWS – Business fields

Laser materials processing

Cutting / Ablation



Surface treatment



PVD- and nanotechnology



Joining



Thermal coating and generating



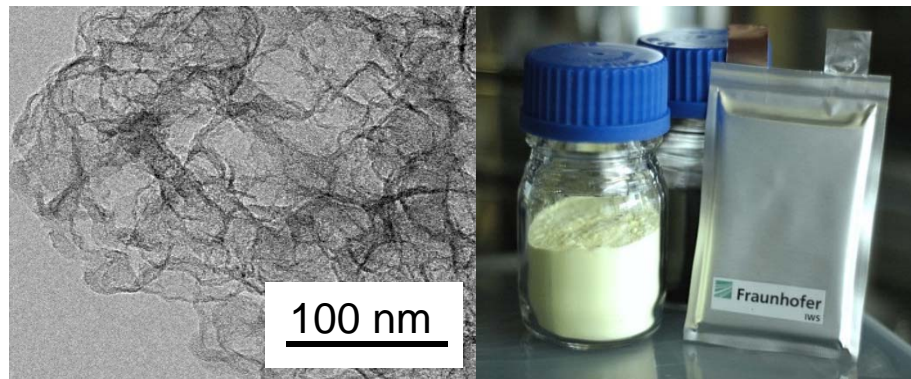
Chemical surface and reaction technology



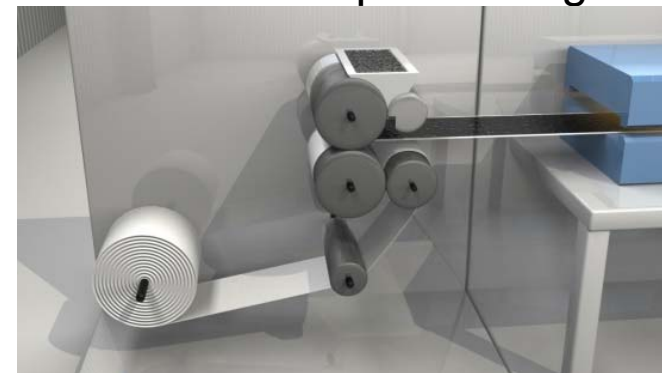
Materials, compound and process characterization

Fraunhofer IWS – Battery Research center

Material development



Electrode processing



Cell processing



What we offer:

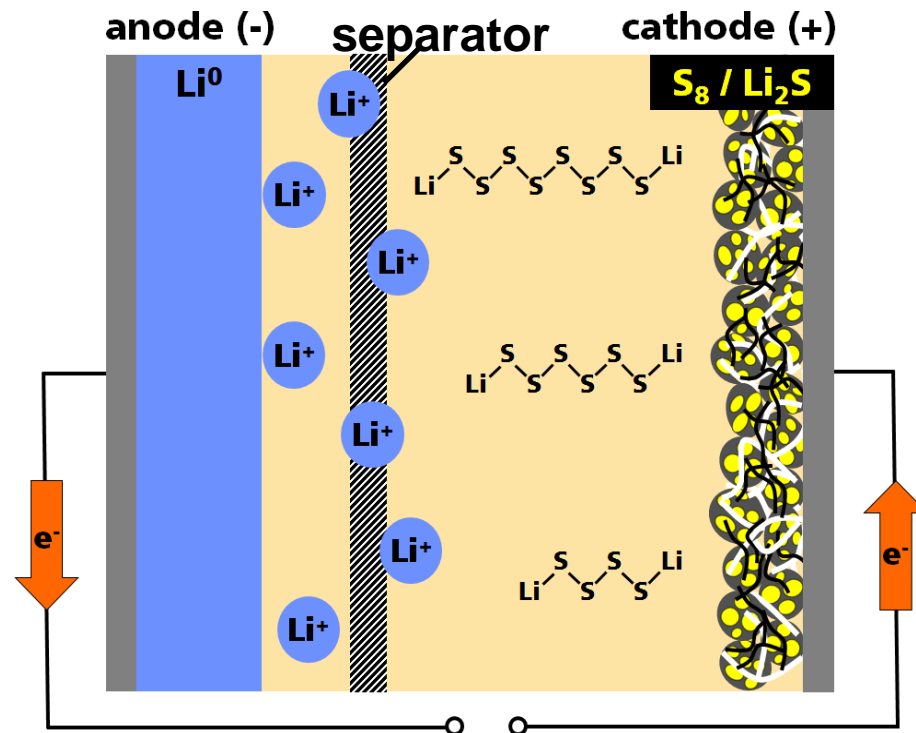
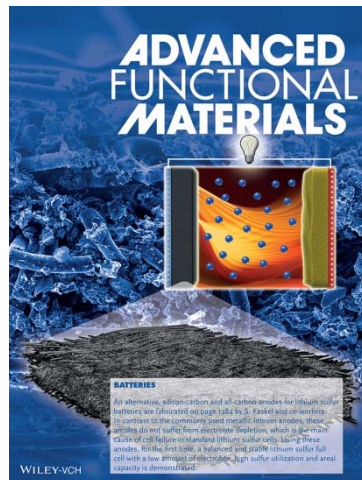
- Tailored materials
- Electrode and cell manufacturing
- Evaluation of materials and cell components
- Customized **Lithium-Sulfur** prototype cells

Fraunhofer IWS – Experience in Li-S-Battery development

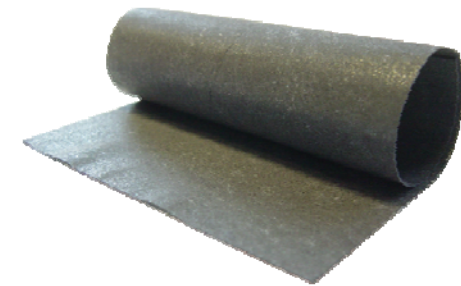
Ion-selective separators



Alternative anode materials



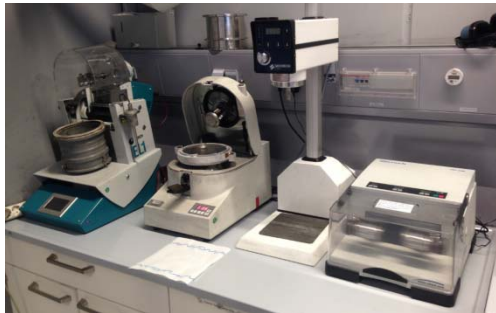
Dry processed porous carbon cathodes



S. Thieme *et al.*, *J. Mater. Chem. A*, **2013** 1, 9225–9234, DOI:10.1039/c3ta10641a
 J. Brückner *et al.*, *Adv. Funct. Mater.*, **2014** 24 9, 1284–1289, DOI:10.1002/adfm.201302169
 I. Bauer, *J. Pow. Sour.*, **2014**, 251 417–422, DOI: 10.1016/j.jpowsour.2013.11.090

Fraunhofer IWS – Equipment and facilities

■ Electrode manufacturing



Material processing

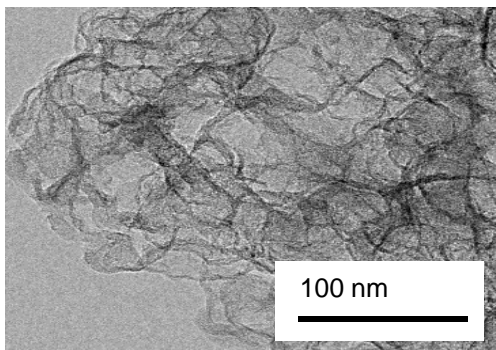


Roll-to-roll coating



250 kN calander

■ Evaluation of materials and cell components for Li-S-cells



*Material characterization
(TEM, SEM, BET)*



Coin and pouch cell tools



> 200 cycling channels

Persons



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