

French - German opportunities of cooperation to face the European revolution in neutron science



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Aging induced morphology changes in silicon-based anodes

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Although a silicon-based electrode is a promising candidate as anode in Li-ion batteries, repeated cycling results in significant morphological changes of the silicon particles leading to formation of highly porous silicon structures. We applied small-angle neutron scattering (SANS) with selective contrast matching to provide quantitative insights into the solid-electrolyte-interphase (SEI) coverage around the silicon particles and filling of the evolving porosity within the electrode.

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