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Title (English) Life time study of novel material for Lithium-ion batteries		
Title (Swedish)		
Abstract <p>The structural changes in Lithium iron phosphate have been studied by in situ X-ray diffraction. Changes in battery state-of-charge by high current pulses and the relaxation at different state-of-charge were examined. Two cells were studied both cycled prior to the in situ experiments, one pre-cycled galvanostatic at low rate (C/10) and the other cycled with a pulse modified galvanostatic pattern. Low rate pre-cycled cells shows structural relaxation phenomena in the zero current periods in-between discharge pulses, where the other cell did not. The relaxation phenomena may be the result of interfering chemical reactions. Also were the thermal stability of cells with different electrolytes examined (LiBOB and LiPF₆).</p>		
Keywords <p>LiFePO₄, in situ x-ray diffraction, Lithium ion batteries, electrolyte stability</p>		
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