SCCER Summer School - Energy Storage in Batteries: Materials, Systems, and Manufacturing

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Ageing and Safety of Cell

Tuesday, 12 July 2016 10:45 (1h 45m)

In this module we will study the different causes of aging of rechargeable batteries (SEI layer formation, electrode dissolution, etc.), and the influence of operational parameters (depth of discharge, temperature, current and current ripples) for the most important cell chemistries. The difference between the capacity fade due to calendar life vs. cycle life is addressed. Finally the contribution of each component to battery safety and the selection criteria for types of rechargeable batteries regarding the costs, safety and capacity fading is discussed in this lecture.

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