

Baden-Württemberg

The German Southwest.



Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)

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Overcharge Protection of Li-Ion Batteries with RSA



Accumulators Materials Research Safety considerations are important for secondary lithium ion batteries (LIB) used in stationary and mobile applications which require high energy and power. Overcharge is one of the dangerous conditions that threaten the life of LIBs with irreversible heat evolving reactions. Redox shuttle additives (RSAs) provide intrinsic overcharge protection. They remain inactive during normal cell operation and only become active under overcharge. The principal advantages of RSAs are the reversibility of the overcharge protection mechanism, easiness of application and their low cost.



Nobel Laureates 2013