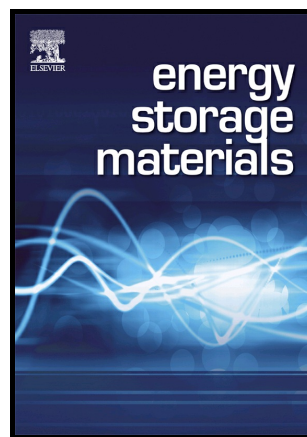


## Author's Accepted Manuscript

Structural and Mechanistic Revelations on High Capacity Cation-disordered Li-rich Oxides for Rechargeable Li-ion Batteries

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**Structural and Mechanistic Revelations on High Capacity Cation-disordered  
Li-rich Oxides for Rechargeable Li-ion Batteries**

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**Abstract**

High capacity cation-disordered Li-rich oxides not only enlarge the chemical design space of cathode materials, but also play an important role in promoting the development of high energy density Li-ion batteries. However, there are still some issues, such as capacity degradation, that impede their practical applications. In-depth understanding of the structure and mechanisms in cation-disordered Li-rich oxides is favorable for their further performance optimization. Herein, taking the new designed high capacity (~280 mAh/g) disordered  $\text{Li}_{1.2}\text{Ti}_{0.35}\text{Ni}_{0.35}\text{Nb}_{0.1}\text{O}_{1.8}\text{F}_{0.2}$  as a model

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