Combustion-synthesized LiMn-based spinel nanostructures as cathode materials for lithium-ion batteries

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Research Highlights

- Combustion-synthesized Li-Mn spinel-based cathode nanostructures
- Nanorods resulted in better electrochemical behavior vs. bulk commercial spinels
- Doping with Cu and Al ions further improved the insertion/extraction process of Li
- Exceptional stability obtained at high rates
- Li$_{1.068}$Al$_{0.099}$Mn$_{1.901}$O$_4$ nanostructure showed the highest electrochemical reversibility