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Authors: Guohua Li, Qi Li, Liping Li, Jianming Fan, Qingqin Ge, Dongjiu Xie, Jing Zheng, Guangshe Li



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Surface Element Segregation and Electrical Conductivity of Lithium Layered Transition-metal Oxide Cathode Materials

Guohua Li¹, Qi Li¹⁺, Liping Li^{1,2*}, Jianming Fan¹, Qingqin Ge³, Dongjiu Xie¹, Jing Zheng¹,
Guangshe Li^{2*}

¹Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences,

Fuzhou 350002, P.R. China; E-mail: lipingli@fjirsm.ac.cn

²States Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of

Chemistry, Jilin University, Changchun 130012, P.R. China; E-mail:guangshe@jlu.edu.cn

³Thermo Fisher Scientific China, Building 6, No. 27, Xin Jinqiao Road, Shanghai, China 201206

⁺Present address: Department of Microtechnology and Nanoscience, Chalmers University of Technology, Gothenburg, 41296 Sweden

Highlights

- Surface element segregation is uncovered for layered transition-metal oxides.
- Ni/Mn atoms enrich in surface region, while Co atoms show anti-segregation.
- TMs segregation can be alleviated with increasing Ni/Mn content.
- With the increasing of Ni/Mn content, bulk activation energy increase.

Abstract

Surface element segregation and electric conductivity are critical in determining lithium storage ability of given cathode materials, which are poorly understood and not

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