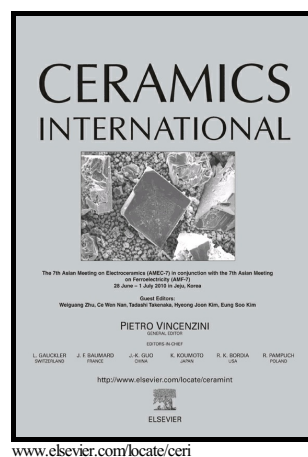


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Studies on spinel cobaltites, MCo_2O_4 (M=Mn, Zn, Fe, Ni and Co) and their functional properties

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Abstract

Optimization of electrodes for charge storage with appropriate processing conditions places significant challenges in the developments for high performance charge storage devices. In this article, metal cobaltite spinels of formula MCo_2O_4 (where M=Mn, Zn, Fe, Ni and Co) are synthesized by oxalate decomposition method followed by calcination at three typical temperatures, viz. 350, 550, and 750°C and examined their performance variation when used as anodes in lithium ion batteries. Phase and structure of the materials are studied by powder x-ray diffraction (XRD) technique. Single phase MnCo_2O_4 , ZnCo_2O_4 and Co_3O_4 are

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