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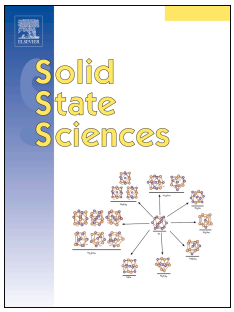

Co-precipitation synthesis, humidity sensing and photoluminescence properties of nanocrystalline Co^{2+} substituted zinc(II)molybdate ($Zn_{1-x}Co_xMoO_4$; x = 0, 0.3, 0.5, 0.7, 1)

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Graphical Abstract

SEM image of ZnCM-4 showed that the surface is well covered, good interconnectivity and uniform particle sizes were observed which is found to be a higher sensing factor towards humidity. The bar diagram showed the sensing factor vs composites code. Schematic diagram of sensing mechanism of surface adsorption on water molecules by Grotthus chain mechanisam of humidity sensing at metal oxide surface. Emission spectra of ZnCM-2, ZnCM-3, ZnCM-4 and CoM-5 composites excited at 520 nm.