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Abstract

LiF was used as the Li source to prepare Fe³⁺ red phosphors based on lithium aluminates and an aluminum lithium oxyfluoride. LiF led to the three types of the host materials of α -LiAlO₂, γ -LiAlO₂ and Al₄LiO₆F with the different synthetic conditions. Metastable α -LiAlO₂ crystallized up to 800 °C under Li-rich conditions in the starting mixture (eg. LiF/Al(OH)₃ = 3). α -LiAlO₂ converted to γ -LiAlO₂ above 800 °C. The flux effect of the

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