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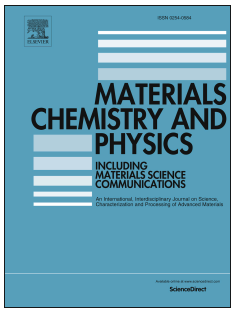

Color selection and red fluorescence enhancement through the controllable energy transfer in $Na_xCa_{1-2x}WO_4:Eu_x^{3+}$ Phosphor for UV converted LEDs

Wenyu Li, Minghua Yang, Fengwen Kang, Guohuan Sun

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1. Eu^{3+} doped $Na_xCa_{1-2x}WO_4:Eu_x^{3+}$ phosphors were synthesized by high temperature solid state reaction
2. Simultaneous enhanced Eu^{3+} red fluorescence and tunable colors were achieved.
3. Time-resolved PL results reveal that the energy transfer between the $CaWO_4$ host and Eu^{3+} dopant begins to occur at $t = 5$ μs.
4. a feasible profile that bases on the energy transfer was established.
5. The energy transfer between host and Eu^{3+} dopant was found to be inefficient and controllable.

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