

Luminescence

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**Multiwavelength Excited White-Emitting Phosphor  $\text{Dy}^{3+}$ -Activated  $\text{Ba}_3\text{Bi}(\text{PO}_4)_3$ .** — Powders of the title phosphor are prepared by solid state reaction of a stoichiometric mixture of  $\text{BaCO}_3$ ,  $\text{Bi}_2\text{O}_3$ ,  $\text{NH}_4\text{H}_2\text{PO}_4$ , and  $\text{Dy}_2\text{O}_3$  (500 °C for 5 h and 1250 °C for 3 h). The optimized phosphor of composition  $\text{Ba}_3\text{Bi}(\text{PO}_4)_3:0.08\text{Dy}^{3+}$  exhibits several excitation bands from 300 to 500 nm and very good luminescence properties. Under UV excitation at 348 and 387 nm it displays warm white luminescence with dominating emissions at 418.6 and 575 nm. The chromaticity coordinates are very close to "ideal white" in the chromaticity diagram suggesting that  $\text{Ba}_3\text{Bi}(\text{PO}_4)_3:0.08\text{Dy}^{3+}$  is suitable as a warm white component for phosphor converted white light emitting diodes. — (LIU, Q.; LIU\*, Y.; YANG, Z.; HAN, Y.; LI, X.; FU, G.; J. Alloys Compd. 515 (2012) 16-19, <http://dx.doi.org/10.1016/j.jallcom.2011.11.114> ; Coll. Phys. Sci. Technol., Hebei Univ., Boading 071002, Peop. Rep. China; Eng.) — W. Pewestorf