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**Hexagonal Sodium Yttrium Fluoride Based Green and Blue Emitting Upconversion Phosphors.** — Pure hexagonal $Na_{3x}Ln_{2-x}F_6$ (Ln: Y, Nd, Er, Tm, Yb; x = 0.45) phosphor powder samples are synthesized from $Ln_2O_3$, $Na_2CO_3$, HBr, and HF in $H_2O$ (550—540 °C, 40 h). As revealed by powder XRD the samples crystallize in the space group $P6_3/m$ with Z = 1. The samples doped with 18% Yb + 2% Er and 25% Yb + 0.3% Tm show the highest upconversion efficiencies for green and blue emission, respectively. The obtained phosphor materials show no degradation under high-power IR laser excitation. — (KRAEMER*, K. W.; BINER, D.; FREI, G.; GUEDEL, H. U.; HEHLEN, M. P.; LUETHI, S. R.; Chem. Mater. 16 (2004) 7, 1244-1251; Inst. Chem. Biochem., Univ. Bern, CH-3012 Bern, Switz.; Eng.) — W. Pewestorf