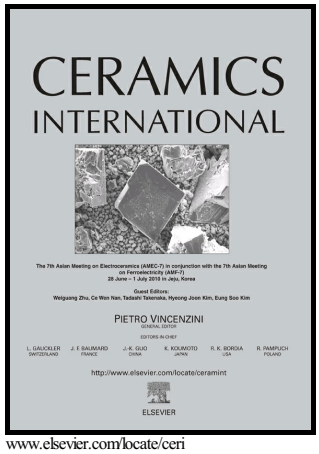

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Abstract

Up-conversion phosphor is a potential candidate as non-contact temperature sensor because of its unjammable and unique detection abilities. In this work, we investigate the influence of Yb^{3+} concentration on the emission color, thermal sensing and optical heater behavior of Er^{3+} doped $Y_6O_5F_8$ phosphor. Our results show that the emission