

Abstract Submitted
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Broad white light emission from sol-gel derived α - $\text{Y}_2\text{Si}_2\text{O}_7$ Nanoparticles activated with Yb^{3+} and Er^{3+} ions¹ JOSEPH LIGUORI, Boston College, MURAT ERDEM, Marmara University, BRYAN SITT, BALDASARE DI BARTOLO, Boston College — We have observed white up conversion emission in sol-gel derived α - $\text{Y}_2\text{Si}_2\text{O}_7$ nano powders activated with ytterbium and erbium ions when excited with the 950 nm emission of a laser diode. The emission intensities of each Er^{3+} transition decreased when the pumping power was increased from 1.7 to 2.5W with the observation of the bright wide band even at atmospheric pressure condition. When the sample was under very low pressure at 0.03 mbar and the pumping power was set from 0.9 to 2.5 Watt, the white emission brightness increased.

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