

研究简报

溶剂挥发法制备掺杂激光染料的具有光致发光特性的介孔薄膜

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摘要 本文采用溶剂挥发法制备了掺杂香豆素151的具有介孔结构的透明二氧化硅薄膜, 并对其荧光发光特性进行了研究.

关键词 [激光染料](#) [掺杂](#) [溶剂挥发法](#) [介孔薄膜](#) [光致发光](#)

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Photoluminescence Property of Meso-structure Silica Film Doped with Laser Dye by Solvent Evaporation Method

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Abstract A simple process were applied to the preparation of transparent meso-structure silica film which doped with laser dye at room temperatrue by solvent evaporation method. The SAXRD pattern of the film doped with Cou 151 indicates that the film retain mesopores structures. In the composite, the dye molecules were mono-disperse in the channels of meso-structure silica which was determined by blue shift in UV spectra. Red shift in the PL spectrum was observed for the composite film compared with that of dye/CHCl₃ solution and this strong fluorescence can take an important action in state dye laser and in optical sensors.

Key words [Laser dye](#) [Doping](#) [Solvent evaporation method](#) [Meso-structure silica film](#) [Phololuminescence](#)

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