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# Photoinduced effects and light emission in Ga-La-S:Pr/sup 3+/ glass

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## Abstract

The absorption and radiation spectra of Ga-La-S-O glasses with fixed cation ratio Ga/La=0.7/0.3 and two oxygen content 0.65 Wt % and 2.95 Wt % were studied for two Pr/sup 3+/ doping levels of 0.1 and 1.0 Wt %. Presence of oxygen induces blue shift of the fundamental absorption edge and results in lowering of the low-energy components of the Pr/sup 3+/ absorption bands. The glasses show bright luminescence due to Pr/sup 3+/ ion emission similar to that in other glasses. The effect of oxygen on the luminescence spectra is determined by decreasing of host glass self-absorption of the short-wavelength bands, which became visible with oxide content growing.