

LUMINESCENCE OF ACTIVATED THIN
Bi₄Ge₃O₁₂ FILMS

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The luminescence spectra of thin Bi₄Ge₃O₁₂ films, which are activated by Si, Mn, Tb, and Eu under X-ray, cathodo- and photoexcitation are investigated. The luminescence spectra of activated films, and pure films consist of three bands with maxima at 2.7, 2.4, 2.05 eV under different excitation. The presence of an admixture at most 1.5 mol.% improves the luminescent intensity in thin Bi₄Ge₃O₁₂ films. Under laser excitation in thin Bi₄Ge₃O₁₂ films, which are activated by rare-earth ions Tb³⁺ and Eu³⁺, the luminescent spectra are caused by electron transitions in activated ions. The interpretation of the luminescent bands is carried out.