



Temperature dependence of the photoluminescence spectra in AgGaS_2

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Abstract

The Silver Gallium Sulfide (AgGaS_2) ternary compound is a wide bandgap semiconductor (about 2.7eV) whose photoluminescence properties are characterized by excitons and donor–acceptor pairs recombinations. We have performed photoluminescence (PL) measurement exciting with the third harmonic (3.5eV) of a Nd:YAG laser from room temperature down to 10K at different excitation power. In this work we report the dependence of the ‘green band’ on the excitation power at various temperatures.