

OPTICAL STUDY OF METAL THIN AL FILM - GLASS CAVITY SURFACE-EMITTING AT ROOM TEMPERATURE FOR MICROLASER

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ABSTRACT

Sharp NIR emission \sim (925) nm of wavelength with \sim 4nm band width was recorded from microcavity(MI)'' glass of 0.5 mm in thickness coated thin AL film of 123 nm in thickness''. Optical study of this cavity was carried out using Ar+ ion Laser (514.5nm) at room temperature. The metal thin AL film was prepared by DC plasma sputter deposition using argon gas. A large increase in the emission intensity from that cavity was observed with increasing the excitation power from 0.6 to 0.9 watt.

KEYWORDS: Luminescence, Metallic Films, Nanoparticles, AL Optical Properties and Glass Optical Properties