THE HOMOGENEOUS BROADENING OF THE 0.63 μm LINE IN A He-Ne LASER

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Summary

The frequency spectrum of intermode beatings for a bimode laser is calculated by taking into account the dispersion of the refraction index within a heterogeneous broadened active transition. The shape of the Bennet gap is described by the Lorentz function. The calculation was compared with the experimental data for the 0.63 μ m line of a He⁻Ne laser. To obtain the best agreement with the experimental results, the parameters of the active medium are determined by using the method of maximal correlation.