

## RESONANCE INTERACTIONS OF TUNED LASER BEAM WITH REMOTE GASES

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### ABSTRACT

The application of tuned laser beams to resonance interactions with remote gases for such purposes as pollution monitoring poses certain requirements with respect to power, pulse stability, frequency range, and linewidth of the laser system. Experimental and analytical work on the improvements of these parameters will be described. In particular, progress in the operation of a parametric tunable laser system<sup>1</sup> for the remote detection of gases such as CO at kilometer ranges will be discussed.

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<sup>1</sup>

T. Henningsen, M. Garbuny, and R. L. Byer, Appl. Phys. Letters, 24, 242 (1974)