IMPROVED EXPERIMENTAL LINE POSITIONS FOR THE (1,1) BAND OF THE $b^1\Sigma^+$ - $X^3\Sigma^-$ TRANSITION OF O_2 BY INTRACAVITY LASER ABSORPTION SPECTROSCOPY

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We report improved experimental line positions for the (1,1) band of the $b^1\Sigma^+$ - $X^3\Sigma^-$ transition of O_2. Results are comparised with previous experimental measurements and predicted values. Additionally, a new method of producing vibrationally hot molecules for use in absorption spectroscopy of stable gas phase molecules is described.