

RECENT PUBLICATIONS MITCHIO OKUMURA

- A. B. McCoy, J. L. Fry, J. S. Francisco, A. K. Mollner, and M. Okumura, "Role of OH-Stretch/Torsion Coupling and Quantum Yield Effects in the First OH Overtone Spectrum of *cis-cis* HOONO", *J. Chem. Phys.* **122**, 104311 (2005).
- A. M. Deev, J. Sommar, and M. Okumura, "Cavity Ringdown Spectrum of the Forbidden $A^2E'' \leftarrow X^2A_2'$ Transition of NO₃: Evidence for Static Jahn-Teller Effect", *J. Chem. Phys.* **122**, 224305 (2005).
- M. Okumura, J. F. Stanton, A. Deev, and J. Sommar, "New Insights into the Jahn-Teller Effect in NO₃ via the Dark A^2E'' State", *Physica Scripta*, **73**, C64-C70 (2006).
- L. E. Christensen, M. Okumura, J. C. Hansen, S. P. Sander, and J. S. Francisco, "Experimental and ab Initio Study of the HO₂(CH₃OH) Complex: Thermodynamics and Kinetics of Formation", *J. Phys. Chem A.* **106**, 6948-6959 (2006).
- D. J. Robichaud, J. T. Hodges, D. Lisak, C. E. Miller, and M. Okumura, "High-Precision Pressure Shifting Measurement Technique Using Frequency-Stabilized Cavity Ring-Down Spectroscopy" *J. Quant. Spectrosc. Rad. Transfer*, **109**, 435-444 (2008).
- D. J. Robichaud, J. T. Hodges, L. R. Brown, D. Lisak, P. Masłowski, L. Y. Yeung, Mitchio Okumura, and C. E. Miller, Experimental Intensity and Lineshape Parameters of the Oxygen *A*-Band Using Frequency-Stabilized Cavity Ring-Down Spectroscopy, *J. Molec. Spectrosc.* **248**, 1 (2008).
- D. J. Robichaud, J. T. Hodges, P. Masłowski, L. Y. Yeung, M. Okumura, C. E. Miller, L. R. Brown, "High-accuracy transition frequencies for the O₂ A-band" *J. Molec. Spectrosc.*, **251** 27 (2008).
- John F. Stanton and M. Okumura, "On the vibronic level structure in the NO₃ radical: Part III. Observation of intensity borrowing via ground state mixing", *Phys. Chem. Chem. Phys.* **27**, 4742-44 (2009).
- Laurence Y. Yeung, Hagit P. Affek, Katherine J. Hoag, Weifu Guo, Aaron A. Wiegel, Eliot L. Atlas, Sue M. Schauffler, Mitchio Okumura, Kristie A. Boering, and John M. Eiler, "Large and unexpected enrichment in stratospheric ¹⁶O ¹³C ¹⁸O and its meridional variation", *PNAS*, **106**, 11496-11501(2009) . Correction for Yeung et al., Large and unexpected enrichment in stratospheric ¹⁶O ¹³C ¹⁸O and its meridional variation, *PNAS* **106**, 19203 (2009).
- David J. Robichaud, Laurence Y. Yeung, David A. Long, Mitchio Okumura, Daniel K. Havey, Joseph T. Hodges, Charles E. Miller and Linda R. Brown, "Experimental Line Parameters of the $b^1\Sigma_g^+ \leftarrow X^3\Sigma_g^-$ Band of Oxygen Isotopologues at 760 nm

Using Frequency-Stabilized Cavity Ring-Down Spectroscopy”, *J. Phys. Chem. A*, **113**, 13089–13099 (2009).

- Laurence Y. Yeung, Mitchio Okumura, Jeffrey Paci, George C. Schatz, Jianming Zhang, Timothy K. Minton, “Hyperthermal O-Atom Exchange Reaction $O_2 + CO_2$ Through a CO_4 Intermediate”, *J. Am. Chem. Soc.* **131**, 13940–13942 (2009).
- David A. Long, Daniel K. Havey, Mitchio Okumura, Herbert M. Pickett, Charles E. Miller and Joseph T. Hodges, “Laboratory measurements and theoretical calculations of O_2 A-band electric quadrupole transitions”, *Phys. Rev. A*, **80**, 042513 (2009).
- Daniel K. Havey, David A. Long, M. Okumura, C. E. Miller and J. T. Hodges, “Ultra-Sensitive Optical Measurements of High- J Transitions in the O_2 A-band,” *Chem. Phys. Letters*, **483**, 49–54 (2009).
- Duncan Wild, Keith T. Kuwata, Chi-Kin Wong, Julio D. Lobo, Andrei Deev, Thomas Schindler, Mitchio Okumura, and Evan J. Bieske, *J. Phys. Chem. A*, **114**, 4762–4769 (2010).
- Anne B. McCoy, Matthew J. Sprague, and Mitchio Okumura, “The Role of Torsion/Torsion Coupling in the Vibrational Spectrum of Cis-Cis HOONO”, *J. Phys. Chem. A*, **114**, 1324-1333 (2010).
- Aaron C. Noell, Leah S. Alconcel, David J. Robichaud, Mitchio Okumura, and Stanley P. Sander, “Near-Infrared Kinetic Spectroscopy of the HO_2 and $C_2H_5O_2$ Self-Reactions and Cross-Reactions”, *J. Phys. Chem. A*, **114**, 6983–6995 (2010).
- David A. Long, Daniel K. Havey, M. Okumura, C. E. Miller and J. T. Hodges, “ O_2 A-Band Line Parameters to Support Atmospheric Remote Sensing”, *J. Quant. Spectrosc. Rad. Transfer*, **111**, 2021-2036 (2010).
- David A. Long, Daniel K. Havey, M. Okumura, C. E. Miller and J. T. Hodges, Hyperfine Splittings, *Phys. Rev. A* **81**, 064502 (2010).
- Andrew K. Mollner, Sivakumaran Valluvadasan, Lin Feng, Matthew K. Sprague, Mitchio Okumura, D. B. Milligan, William J. Bloss, Stanley P. Sander, Philip T. Martien, Robert A. Harley, William Carter and Anne B. McCoy, Rate of gas phase association of hydroxyl radical and nitrogen dioxide, *Science*, **330**, 646 (2010); DOI: 10.1126/science.1193030. Supplemental On-Line Material.
- David A. Long, Daniel K. Havey, S. S. Yu, Mitchio Okumura, Charles E. Miller and Joseph T. Hodges, “ O_2 A-Band Line Parameters to Support Atmospheric Remote Sensing. Part II. The Rare Isotopologues”, *J. Quant. Spectrosc. Rad. Transfer*, **112**, 2527-2541, DOI:10.1016/j.jqsrt.2011.07.002 (2011).
- David A. Long, Kasia Bielska, Daniel Lisak, Daniel K. Havey, Mitchio Okumura, Charles E. Miller, and Joseph T. Hodges, “The air-broadened, near-infrared CO_2 line

shape in the spectrally isolated regime: Evidence of simultaneous Dicke narrowing and speed dependence”, *J. Chem. Phys.*, **135**, 064308-1-064308-7, DOI:10.1063/1.3624527 (2011).

- David A. Long, Mitchio Okumura, Charles E. Miller and Joseph. T. Hodges, “Frequency-stabilized cavity ring-down spectroscopy measurements of carbon dioxide isotopic ratios”, **105**, 471-477, *Appl. Phys. B*, DOI 10.1007/s00340-011-4518-z (2011).
- Fred J. Grieman, Aaron C. Noell, Casey Davis-Van Atta, Mitchio Okumura, and Stanley P. Sander, “Determination of Equilibrium Constants for the Reaction between Acetone and HO₂ Using Infrared Kinetic Spectroscopy”, *J. Phys. Chem. A*, **115**, 10527–10538 (2011).
- Laurence Y. Yeung, Mitchio Okumura, Jianming Zhang, Timothy K. Minton, Jeffrey T. Paci, Amir Karton, Jan M. L. Martin, Jon P. Camden and George C. Schatz, “O(³P) + CO₂ Collisions at Hyperthermal Energies: Dynamics of Non-Reactive Scattering, Oxygen Isotope Exchange, and Oxygen-Atom Abstraction”, *J. Phys. Chem. A* DOI: 10.1021/jp2080379, (2011).