

# CURRICULUM VITAE

Carl J. Williams

## Publication List (1986 – 2011)

1. Spectroscopy of Low-Energy Non-Adiabatic Resonances in Photodissociation to Open-Shell Atoms:  $\text{CH}^+$ , A Model System, *Chem. Phys. Lett.* **127**, 360 (1986), C.J. Williams and K.F. Freed.
2. Dynamics and Spectroscopy of Near Threshold Nonadiabatic Resonances in Photodissociation to Open Shell Atoms:  $\text{CH}^+$  A Model System, *J. Chem. Phys.* **85**, 2699 (1986) C.J. Williams and K.F. Freed.
3. Non-Adiabatic Effects on Oxygen Atom Fine Structure Populations in the Predissociation of the  $\text{A}^2\Sigma^+$  State of OH, *Chem. Phys. Lett.* **130**, 271 (1986), S.Lee, C.J. Williams, and K.F. Freed.
4. Three-Dimensional Analytical Quantum Mechanical Theory for Triatomic Photodissociation: Role of Angle Dependent Dissociative Surfaces on Rotational and Angular Distributions in the Rotational Infinite Order Sudden Limit, *J. Chem. Phys.* **86**, 5456 (1987), H. Grinberg, K.F. Freed, and C.J. Williams.
5. Nonadiabatic Effects on the Photodissociation of Diatomic Molecules to Open Shell Atoms: Resonances, Polarizations and Angular Distributions for the  $\text{CH}^+$  Model System, *Faraday Disc. Chem. Soc.* **82**, 51 (1986), C.J. Williams, K.F. Freed, S.J. Singer, and Y.B. Band.
6. Nonadiabatic Effects on the Photodissociation of Diatomic Molecules to Open Shell Atoms, *J. Phys. Chem.* **91**, 5402 (1987), with Y.B. Band, K.F. Freed, S.J. Singer, and C.J. Williams.
7. Low Energy Atomic Scattering of Ground State  $\text{C}^+(^2\text{P})$  Ions by Atomic Hydrogen: Role of Nonadiabatic Couplings and Resonances in Elastic and Inelastic Processes, *J. Phys. B: At. & Mol. Phys.* **20**, 5737 (1987), C.J. Williams and K.F. Freed.
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9. Theory of Diatomic Photodissociation to Atomic Hyperfine Structure States, *Israel J. Chem.* **30**, 3 (1990), S.Lee, C.J. Williams, and K.F. Freed.
10. Three-Dimensional Analytical Quantum Theory for Triatomic Photodissociation. II. Angle Dependent Dissociative Surfaces and Rotational Infinite Order Sudden Approximations for Bent Triatomic, *J. Chem. Phys.* **92**, 7283 (1990), H. Grinberg, K.F. Freed, and C.J. Williams.
- \* 11. Vibrational States of Van der Waals and Hydrogen-Bonded Clusters: A Self Consistent Field Approach, *Dynamics of Polyatomic Van der Waal Clusters*, ed. N. Halberstadt and K.C. Janda, (Plenum Press, New York, 1990), R.B. Gerber, T.R. Horn, C.J. Williams, and M.A. Ratner.
- \* 12. Static Self Consistent Field Methods for Anharmonic Potentials: An Update, *Adv. Molec. Vibr. and Coll. Dynamics*, **1A**, 215 (1991) M.A. Ratner, C.J. Williams, R.B. Gerber, and T.R. Horn.
13. Dynamics of Triatomic Photodissociation in the Interaction Representation. I. Methodology, *J. Chem. Phys.*, **95**, 1721 (1991), C.J. Williams, J. Qian, and D.J. Tannor.
14. Influence of Initial State Bend-Stretch Couplings on Product Rotational Distributions in Photodissociation of Bent Triatomic Molecules, *Chem. Phys. Lett.* **182**, 297 (1991), H. Grinberg, K.F. Freed, and C.J. Williams.
15. Nested Interaction Representations in Time Dependent Quantum Mechanics, *J. Chem. Phys.*, **96**, 2998 (1992), D.J. Tannor, A. Besprozvannaya, and C.J. Williams.

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