Associate Professor of Chemistry
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Current Position

- Associate Professor, Department of Chemistry, Seattle Pacific University 2015-present

Previous Positions

- Assistant Professor, Department of Chemistry, Seattle Pacific University 2010-2015
- Postdoctoral Fellow, Department of Chemistry, University of Pittsburgh 2006-2010

Education

- PhD, University of Otago, Dunedin, New Zealand Dec 2005
- BSc(Hons), University of Otago, Dunedin, New Zealand May 2002

Funding and Awards

- Murdock College Research Program for Natural Sciences, 2016 ($66,988)
- Faculty Research Grant, Seattle Pacific University, 2015 ($6,089)
- Faculty Research Grant, Seattle Pacific University, 2012 ($5,065)
- Postdoctoral Fellowship, Foundation for Research, Science and Technology ($165,000)
- Bright Futures Top Achiever Doctoral Scholarship, Tertiary Education Commision ($56,000)

Publications (all peer-reviewed, *=Undergraduate co-author)

25. Vibrational spectroscopy of the water-nitrate complex in the O-H stretching region
N. Heine, E. G. Kratz, R. Bergmann, D. P. Schofield, K. R. Asmis, K. D. Jordan and A. B. McCoy; J. Phys. Chem. A, **2014**, *118*, 8188-8197.
24. Sorption of H_2 to open metal sites in a metal-organic framework: A symmetry-adapted perturbation theory analysis
J. J. Goings*, S. M. Ohlsen*, K. M. Blaisdell* and D. P. Schofield; J. Phys. Chem. A, **2014**, *118*, 7411-7417.
23. Determination of conformational preferences in biomolecule mimics with localized orbital coupled cluster methods
D. P. Schofield and K. D. Jordan, AIP Conf. Proc. **2012**, *1504*, 957-960
22. Understanding the sensor response of metal-decorated carbon nanotubes
D. R. Kauffman, D. C. Sorescu, D. P. Schofield, B. L. Allen, K. D. Jordan and A. Star; Nano Lett., **2010**, *10*, 958-963.
21. How the shape of an H-bonded network controls proton-coupled water activation in HONO formation
R. A. Relph, T. L. Guasco, B. M. Elliot, M. Z. Kamrath, A. B. McCoy, R. P. Steele, D. P. Schofield, K. D. Jordan, A. A Viggiano, E. E. Ferguson and M. A. Johnson; Science, **2010**, *327*, 308-312.

20. Molecular dynamics simulations of bromine clathrate hydrates
D. P. Schofield and K. D. Jordan; J. Phys. Chem. A, **2009**, *113*, 7431-7438

19. Model systems for exploring electron correlation effects in the buckling of SiSi dimers on the Si(100) surface
W. M. Lampart, D. P. Schofield, R. A. Christie and K. D. Jordan; Mol. Phys., **2008**, *106*, 1697-1702.

18. Atmospheric photolysis of sulfuric acid
H. G. Kjaergaard, J. R. Lane, A. L. Garden, D. P. Schofield, T. W. Robinson and M. J. Mills; Adv. Quant. Chem., **2008**, *55*, 137-158.

17. Entropy-driven population distributions in a prototypical molecule with two flexible sidechains: *O*-(2-acetamidoethyl)-*N*-acetyltyramine
V. A. Shubert, E. E. Baquero, J. R. Clarkson, W. H. James, J. A. Turk, A. A. Hare, K. Worrel, M. A. Lipton, D. P. Schofield, K. D. Jordan and T. S. Zwier; J. Chem. Phys., **2007**, *127*, 234315, 1-21.

16. Comparison of models with distributed polarisable sites for describing water clusters
A. DeFusco, D. P. Schofield and K. D. Jordan; Mol. Phys., **2007**, *105*, 2681-2696.

15. Theoretical investigation of the electronically excited states of chlorine hydrate
D. P. Schofield and K. D. Jordan; J. Phys. Chem. A, **2007**, *111*, 7690-7694.

14. The hydrogen bonded OH-stretching vibration in water dimer
D. P. Schofield, J. R. Lane and H. G. Kjaergaard; J. Phys. Chem. A, **2007**, *111*, 567-572.

13. The lowest $^2A'$ excited state of the water-hydroxyl complex
T. D. Crawford, M. L. Abrams, R. A. King, J. R. Lane, D. P. Schofield, and H. G. Kjaergaard; J. Chem. Phys., **2006**, *125*, 204302, 1-6.

12. The OH-stretching and OOH-bending overtone spectrum of HOONO
D. P. Schofield, H. G. Kjaergaard, J. Matthews and A. Sinha; J. Chem. Phys., **2005**, *123*, 134318, 1-9.

11. CH-stretching overtone spectroscopy of 1,1,1,2-tetrafluoroethane
B. G. Saar, A. H. Steeves, J. W. Thoman, D. L. Howard, D. P. Schofield and H. G. Kjaergaard; J. Phys. Chem. A, **2005**, *109*, 5323-5331.

10. Infrared identification of matrix isolated $H_2O{\cdot}O_2$
P. D. Cooper, H. G. Kjaergaard, V. S. Langford, A. J. McKinley, T. I. Quickenden, T. W. Robinson, and D. P. Schofield; J. Phys. Chem. A, **2005**, *109*, 4274-4279.

9. Photolysis of sulfuric acid vapor by visible light as a source of the polar stratospheric CN layer
M. J. Mills, O. B. Toon, V. Vaida, P. E. Hintze, H. G. Kjaergaard, D. P. Schofield and T. W. Robinson; J. Geophys. Res., **2005**, *110*, D08201, 1-7.

8. Effect of OH internal torsion on the OH-stretching spectrum of cis,cis-HOONO
D. P. Schofield and H. G. Kjaergaard; J. Phys. Chem. A, **2005**, *109*, 1810-1814.

7. High-level *ab initio* studies of the electronic excited states of the hydroxyl radical and the water-hydroxyl complex
D. P. Schofield and H. G. Kjaergaard; J. Chem. Phys., **2004**, *120*, 6930-6934.

6. Atmospheric water vapor complexes and the continuum
   J. S. Daniel, S. Solomon, H. G. Kjaergaard and D. P. Schofield; Geophys. Res. Lett., **2004**, *31*, L06118, 1-4.
5. High level *ab initio* studies on the excited states of sulfuric acid and sulfur trioxide
   T. W. Robinson, D. P. Schofield and H. G. Kjaergaard; J. Chem. Phys., **2003**, *118*, 7226-7232.
4. Infrared measurements and calculations on $H_2O{\cdot}HO$
   P. D. Cooper, H. G. Kjaergaard, V. S. Langford, A. J. McKinley, T. I. Quickenden and D. P. Schofield; J. Am. Chem. Soc., **2003**, *125*, 6048-6049.
3. Calculated OH-stretching and HOH-bending vibrational transitions in the water dimer
   D. P. Schofield and H. G. Kjaergaard; Phys. Chem. Chem. Phys., **2003**, *5*, 3100-3105.
2. CH-stretching overtone spectra of 3-hexyne and butane
   B. R. Henry, D. M. Turnbull, D. P. Schofield and H. G. Kjaergaard; J. Phys. Chem. A, **2003**, *107*, 3236-3243.
1. OH- and CH-stretching overtone spectra of catechol
   H. G. Kjaergaard, D. L. Howard, D. P. Schofield, T. W. Robinson, S. Ishiuchi, and M. Fujii; J. Phys. Chem. A, **2002**, *106*, 258-266.

Recent Presentations (*=Undergraduate co-author)

9. Identification of stem-loop motifs in the secondary structure of RNA
   Elizabeth S. Knodel*, Wade W. Grabow and Daniel P. Schofield, Murdock College Science Research Conference, November 2016
8. Vibrational spectra of potential atmospheric aerosol precursors
   Emma M. Honeyman*, Elizabeth S. Knodel* and Daniel P. Schofield, Murdock College Science Research Conference, November 2016
7. Application of a many-body decomposition scheme to the local mode vibrations of water clusters
   Joseph P. Heindel* and Daniel P. Schofield, ACS national meeting August 2016
6. Effect of internal torsion on the CH-stretching overtone spectrum of biphenyl
   Elizabeth S. Knodel*, Joseph P. Heindel* and Daniel P. Schofield, Murdock College Science Research Conference, November 2015
5. Noncovalent hydrogen-metal interactions in metal-organic frameworks
   Suzanna M. Ohlsen* and Daniel P. Schofield, ACS national meeting, April 2013
4. Role of spin state in optimizing hydrogen storage in metal organic frameworks
   Kara M. Blaisdell* and Daniel P. Schofield, ACS national meeting, April 2013
3. Computational studies of hydrogen storage in metal-organic frameworks
   Joshua J. Goings* and Daniel P. Schofield, ACS Puget Sound meeting, April 2012
2. Computational studies of hydrogen storage in a metal-organic framework mimic
   Joshua J. Goings* and Daniel P. Schofield, Murdock College Science Research Conference, November 2011
1. Computational analysics of hydrogen storage in metal-organic frameworks
   Nicole K. McCloskey* and Daniel P. Schofield, Erickson Conference, April 2011