

Michael Strafford Scholz

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Experience and education

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| 2020– | Postdoctoral Research Fellow , University College London, Bloomsbury.
Project: Photoelectron spectroscopy of biochromophores
Advisor: Professor Helen Fielding. |
| 2016–2021 | Doctor of Philosophy in Chemistry , University of Melbourne, Parkville.
Thesis: <i>Electronic spectroscopy and structure of gas-phase ions</i>
Advisor: Professor Evan Bieske. |
| 2012–2015 | Bachelor of Science (First Class Honours) in Chemistry , University of Melbourne, Parkville.
Thesis: <i>Collisional activation of ions in a tandem drift tube ion mobility mass spectrometer</i>
Advisor: Professor Evan Bieske. |

Awards

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| 2018 | Nico Nibbering Travel Award, International Mass Spectrometry Conference 2018, Florence
Student Travel Scholarship, Pacific Conference on Spectroscopy and Dynamics 2018, San Diego |
| 2017 | Runner up, Best Talk, RACI Victoria Inorganic Student Symposium, La Trobe University
Study Abroad Travelling Scholarship, University of Melbourne, Parkville |
| 2016–2019 | Australian Postgraduate Award / Research Training Program scholarship, University of Melbourne and Australian Government |
| 2016 | Best Poster, RACI Physical Chemistry 2016 Meeting, Christchurch
Dixon Scholarship, University of Melbourne, Parkville
Dean's Honours List, University of Melbourne, Parkville |

Presented talks

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| 2021 | Laser Spectroscopy group seminar, University of Bristol, invited |
| 2020 | Chemistry, Light, and Dynamics group seminar, University College London, contributed |
| 2018 | University of Melbourne–Tohoku University Chemistry workshop, The University of Melbourne, invited
Experimental Quantum Biophysics seminar, Aarhus University, invited
Electronic and Photonic Materials seminar, University of New Mexico, invited
Pacific Conference on Spectroscopy and Dynamics, San Diego, contributed |

- 2017 RACI Victoria Inorganic Student Symposium, La Trobe University, contributed
 2016 University of Melbourne–USA Chemistry Symposium, The University of Melbourne, invited
 RACI Physical Chemistry Student Conference, Katoomba, contributed

Presented posters

- 2019 RACI Physical Chemistry 2018 Meeting, University of Western Australia
 2018 RACI Victoria Inorganic Student Symposium, Monash University
 22nd International Mass Spectrometry Conference, Florence
 2017 Australian and New Zealand Society for Mass Spectrometry 26 Conference, Flinders University
 2016 RACI Physical Chemistry 2016 Meeting, University of Canterbury

Teaching

- Mar. 2017– Jun 2019 **Laboratory demonstrator**, CHEM30015 (“Advanced Practical Chemistry”, Physical Chemistry laboratory), University of Melbourne, Parkville
 Mar. 2019 **Teaching assistant**, CHEM30016 (“Reactivity and Mechanism”, Properties of Solids and Statistical Thermodynamics), University of Melbourne, Parkville
 Mar. – Oct. 2016 **Laboratory demonstrator**, CHEM10004 and CHEM10006 (“Chemistry 1” and “Chemistry for Biomedicine”), University of Melbourne, Parkville.

Publications

- 19 U. Jacovella, M. S. Scholz, E. J. Bieske
 The electronic spectrum of the tropylium cation in the gas phase
J. Phys. Chem. Lett., **2020**, *11* (20), 8867–8872.
- 18 E. Carrascosa, C. Petermayer, M. S. Scholz, J. N. Bull, H. Dube, E. J. Bieske
 Reversible photoswitching of isolated ionic hemiindigos with visible light
ChemPhysChem, **2020**, *21* (7), 680–685.
- 17 H. Z. Ma, A. I. McKay, A. Mravak, M. S. Scholz, J. M. White, R. J. Mulder, E. J. Bieske, V. Bonačić-Koutecký, R. A. J. O’Hair
 Structural characterisation and gas-phase studies of the $[\text{Ag}_{10}\text{H}_8\text{L}_6]^{2+}$ nanocluster dication
Nanoscale, **2019**, *11*, 22880–22889.
- 16 J. N. Bull, M. S. Scholz, E. Carrascosa, M. K. Kristiansson, G. Eklund, N. Punnakayathil, N. de Ruelle, H. Zettergren, H. T. Schmidt, H. Cederquist, M. H. Stockett
 Ultraslow radiative cooling of C_n^- ($n = 3-5$)
J. Chem. Phys. **2019**, *151*, 114304.
- 15 G. Muller, K. J. Catani, M. S. Scholz, U. Jacovella, N. I. Bartlett, and E. J. Bieske
 Electronic spectra of diacetylene cations (HC_4H^+) tagged with Ar and N_2
J. Phys. Chem. A **2019**, *123* (20), 7228–7236.
- 14 J. N. Bull, G. da Silva, M. S. Scholz, E. Carrascosa, E. J. Bieske
 Photo-initiated intramolecular proton transfer in deprotonated para-coumaric acid
J. Phys. Chem. A **2019**, *123* (20), 4419–4430.

- 13 J. N. Bull, J. T. Buntine, M. S. Scholz, E. Carrascosa, E. J. Bieske
Photodetachment and photoreactions of substituted naphthalene anions in a tandem ion mobility spectrometer
Faraday Discuss. **2019**, *217*, 34–46.
- 12 J. N. Bull, M. S. Scholz, E. Carrascosa, G. da Silva, E. J. Bieske
A double molecular photoswitch driven by light and collisions
Phys. Rev. Lett. **2018**, *120* (22), 223002.
- 11 E. Carrascosa, J. N. Bull, M. S. Scholz, N. J. A. Coughlan, S. Olsen, U. Wille, E. J. Bieske
Reversible photoisomerization of the isolated green fluorescent protein chromophore
J. Phys. Chem. Lett. **2018**, *9* (10), 2647–2651.
- 10 M. S. Scholz, J. N. Bull, E. Carrascosa, B. D. Adamson, G. K. Kosgei, J. J. Rack, E. J. Bieske
Linkage photoisomerization of an isolated ruthenium sulfoxide complex: sequential versus concerted rearrangement
Inorg. Chem. **2018**, *57* (9), 5701–5706.
- 9 J. N. Bull, E. Carrascosa, N. Mallo, M. S. Scholz, G. da Silva, J. E. Beves, E. J. Bieske
Photoswitching an isolated donor-acceptor Stenhouse adduct
J. Phys. Chem. Lett. **2018**, *9* (3), 665–671.
- 8 J. N. Bull, M. S. Scholz, E. Carrascosa, E. J. Bieske
From *E* to *Z* and back again: reversible photoisomerisation of an isolated charge-tagged azobenzene
Phys. Chem. Chem. Phys. **2018**, *20*, 509–513.
- 7 M. S. Scholz, J. N. Bull, N. J. A. Coughlan, E. Carrascosa, B. D. Adamson, E. J. Bieske
Photoisomerization of protonated azobenzenes in the gas phase
J. Phys. Chem. A **2017**, *121* (34), 6413–6419.
- 6 S. F. Lim, B. L. Harris, G. N. Khairallah, E. J. Bieske, P. Maître, G. da Silva, B. D. Adamson, M. S. Scholz, N. J. A. Coughlan, R. A. J. O’Hair, M. Rathjen, D. Stares, J. M. White
Seleniranium ions undergo π -ligand exchange via an associative mechanism in the gas phase
J. Org. Chem. **2017**, *82* (12), 6289–6297.
- 5 J. N. Bull, E. Carrascosa, M. S. Scholz, N. J. A. Coughlan, E. J. Bieske
Online measurement of photoisomerization efficiency in solution using ion mobility mass spectrometry
Analyst **2017**, *142*, 2100–2103.
- 4 J. N. Bull, M. S. Scholz, N. J. A. Coughlan, E. J. Bieske
Isomerization of an intramolecularly hydrogen-bonded photoswitch: protonated azobis(2-imidazole)
Phys. Chem. Chem. Phys. **2017**, *19*, 12776–12783.

- 3 D. C. Georgiou, M. A. Haghghatbin, C. F. Hogan, M. S. Scholz, J. N. Bull, E. J. Bieske, D. J. Wilson, J. L. Dutton
A strong *cis*-effect in an imidazole-imidazolium-substituted alkene
Angew. Chem. Int. Ed. **2017**, *56* (29), 8473–8480.
- 2 J. N. Bull, M. S. Scholz, N. J. A. Coughlan, A. Kawai, E. J. Bieske
Monitoring isomerization of molecules in solution using ion mobility mass spectrometry
Anal. Chem. **2016**, *88* (24), 11978–11981.
- 1 N. J. A Coughlan, M. S. Scholz, A. J. Trevitt, C. S. Hansen, B. D. Adamson, E. J. Bieske
Photo and collision induced isomerization of a cyclic retinal derivative: an ion mobility study
J. Am. Soc. Mass. Spectrom. **2016**, *27*, 1483.

References

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