

Nanoscale Organisation and Dynamics Group

University of Western Sydney



Getting the reaction outcomes you want using ionic liquids: Toward solvent-controlled reactivity

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Abstract

Ionic liquids are salts that are molten below 100 °C. As they have negligible vapour pressure, they are considered as potential alternatives for volatile molecular solvents. Whilst ionic liquids may reduce the environmental impact of a process, moving to an ionic solvent can also have significant effects on rates and selectivities of reactions. At the moment, explanations of the origins of such effects remain limited and solvent-controlled reactivity using ionic liquids is restricted as a result.

This presentation will outline our work towards a predictive framework for describing ionic liquid behaviour. This framework *will allow an informed decision to be made as to whether an ionic liquid should be used as a solvent for a given process*. Results highlighting the microscopic origins of ionic liquid solvent effects in representative systems will be discussed and the potential for ionic liquids to be rationally chosen to beneficially affect reaction outcome demonstrated.

Profile

Dr Jason Harper is a graduate of the University of Adelaide and the Australian National University, where he undertook a Ph.D. with Prof. Chris Easton. After two years as a C. J. Martin postdoctoral fellow working in the group of Prof. Tony Kirby at the University of Cambridge, he was appointed as Lecturer, now Senior Lecturer, in the School of Chemistry at UNSW. He has held visiting positions at Queen's University, Belfast and Boston College. His research interests are generally in the area of mechanistic and physical organic chemistry, with a particularly focus on reaction outcomes in ionic liquids.

Staff and students at all levels are welcome to attend.

Venue and Time:

This talk will be held on Thursday August 15 at 2 pm at the Campbelltown Campus in Building 30, Small Lecture Theatre (CA 30.G.213).

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