KEYNOTE - FUNDAMENTAL

MASS SPECTROMETRY OF NON-VOLATILE MOLECULES DESORBED BY THE INFRA-RED IRRADIATION OF AQUEOUS LIQUID BEAMS

Olivia J. Maselli, Jason R. Gascooke, Kelly J. Bras, Gregory F. Metha and Mark. A. Buntine

Laser Chemistry Laboratory, Department of Chemistry, The University of Adelaide, Adelaide, SA 5005, Australia

Infra-red desorption of low- and non-volatile solutes from *in vacuo* liquid beams is becoming an increasingly common approach for introducing bare and solvated species into the gas phase. The IR desorption approach offers a particular advantage for the gas-phase isolation of non-volatile compounds - the solvent molecules rather than the solute absorb the IR radiation. As such, the solute is thought to be mostly desorbed with minimal excess internal energy. However, many mechanistic aspects of the desorption process remain poorly understood, particularly processes occurring within the desorption plume. We present the results of a study into the desorption of small molecules from aqueous liquid beams.