Poster T11

ACCELERATED DEREPLICATION OF *IANTHELLA* SP. USING ESI FTICR MASS SPECTROMETRY TECHNIQUES

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The Australian Institute of Marine Science (AIMS) is situated directly on the coast in the northern region of the Great Barrier Reef, and has an extensive biodiversity collection. The collection, including both macro- and micro-organisms, contains samples from tropical to polar zones, and is constantly increasing in size and diversity.

The Natural Products Research effort at AIMS is multidisciplinary. We have expertise and facilities to enable all aspects of sample collection, sample curation, micro-organism isolation and cultivation, as well as associated molecular biology, biological screening, chemical dereplication, chemical isolation and structure identification of bioactive metabolites to be undertaken on a routine basis. AIMS has an impressive suite of instrumentation housed in the Biomolecular Analysis Facility (BAF) to enable fast and efficient analysis of bioactive metabolites.

Described here is the application of electrospray ionization fourier transform ion cyclotron resonance mass spectrometry (ESI FTICR MS) for the accelerated dereplication of 21 extracts of *Ianthella* spp., a genus whose chemistry is well documented. Also presented are the advantages and disadvantages of using this methodology as part of a dereplication strategy. The advantages include overall efficiency, time constraints, sample concentration, minimal work up of extract, type of information obtained (MS, MS/MS) and quality of data (exact mass maeasurement) on an analytical scale. The disadvantages are that the detection is not optimal for all classes of molecules (ESI-MS), limited type of information and cost. Further isolation using LC-MS was undertaken and two compounds isolated.