

# UniCat Colloquium

## PROF. RICHARD A. J. O'HAIR

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### *More than just an analytical method! Using Mass Spectrometry to Build Bridges between Gas and Solution Phase Metal Chemistry*

Mass spectrometry based techniques have been developed over the past 50 years to provide fundamental structural, mechanistic and energetic information about intermediates and reactions associated with metal mediated processes, including catalytic cycles. Many early studies involved the reactions of bare monoatomic transition metal cations, which unfortunately gave rise to the perception that gas-phase studies had little or no relevance to synthetic chemists. With the advent of electrospray ionisation, and with an appreciation of the differences in “languages” of the gas-phase and solution-phase chemist, exciting opportunities to bridge the gas and solution phases have emerged, thereby allowing the discovery of new species, reactions and concepts. In this lecture I will describe our recent efforts at using mass spectrometry to bridge the gas and solution phases to: (1) direct the synthesis of metal clusters; (2) discover new metal catalysts; (3) invent new metal mediated reactions.

**Wednesday, December 07, 2016 at 5:15 PM**

TU Berlin, Institute of Chemistry  
Straße des 17. Juni 115, 10623 Berlin

Building C, Lecture Hall C 264

**Prof. Dr. Schwarz (TUB)**

Organizer

Coffee and cake will be served 30 minutes before the lecture. Guests are cordially invited to attend!  
Prof. Dr. Matthias Driess - Chair of the Cluster of Excellence UniCat - [www.unicat.tu-berlin.de](http://www.unicat.tu-berlin.de)



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