

2012 ASMS Meeting Workshop Report

Metal Ion Coordination Chemistry Interest Group

1. Title of workshop and names of those presiding

“Current Topics in Metal Ion Chemistry”

Grant Johnson (PNNL) and Jianhua Ren (UOP), workshop coordinators

2. Date of workshop/meeting

Tuesday, 05/22/2012, 5.45 – 7.00pm

3. Estimate of attendance

60 people

4. Summary of program and discussion

The workshop participants were given a written survey asking for suggestions for a) future workshop topics and formats; b) potential ASMS oral session topics; c) future workshop coordinators (volunteers); d) anything else. The surveys were collected at the end of the workshop.

The workshop consisted of five short (3 slides, ~10 min each) oral presentations followed by a period of discussion. Contributions were solicited from recognized leaders in the field of gas-phase metal ion and cluster research. Additional contributions came from post-docs working in the area.

The program:

1. Dr. George Khairallah, University of Melbourne, “C-I bond activation with gold clusters”
2. Matias Butler, Universidad de Buenos Aires, “Structure of microhydrated calcium catechol complexes: IRMPD vs. B3LYP”
3. Prof. Robert C. Dunbar, Case Western Reserve University, “Metal Ion Binding to the Dipeptide HisGly. An Iminol Tautomerization”
4. Dr. H. Bernhard Linden, Linden CMS GmbH, “Intact $M^{+•}$ of metal ion complexes by soft oxygen/moisture free LIFDI-MS”
5. Prof. J. Stuart Grossert, Dalhousie University, “The binding of monovalent cations to triacylglycerols during electrospray ionization”

The summary of the participant survey:

- a) Proposals for future workshop topics
 - a. Solving problems in metal ion chemistry using mass spectrometry experiments and theory.
 - b. Native LC separation for metalloproteins
 - c. Quantification of metalloproteins
 - d. Structural elucidation of biomimetic systems
 - e. Structures and reactions of metal clusters
 - f. Microsolvation of metals

Jianhua Ren (UOP) and Mike Van Stipdonk (WS) will be the interest group coordinators/workshop organizers for 2012-2013