



## **2<sup>nd</sup> Winter School on Molecular Chemistry**

**Organised by the**

**International Research Training Group**

**"Generation of Supramolecular Functional Cavities -  
Container Molecules, Macrocycles and Related  
Compounds"**

**Champéry / Switzerland**

**March 22<sup>st</sup> – March 27<sup>th</sup>, 2009**

## **Organising Committee**

Werner Uhl

Henrik René Bock

Mareike C. Jahnke

Lilli Macheleit

## **Keynote Lecturers**

Prof. Dr. Jan Reedijk, Leiden / Netherlands

Prof. Dr. Cornelis Johannes Elsevier, Amsterdam / Netherlands

Prof. Dr. Ernst-Ulrich Würthwein, Münster / Germany

Prof. Dr. Jens Müller, Münster / Germany

Dr. Eelco Ruijter, Amsterdam / Netherlands

Dr. Jan. J. Weigand, Münster / Germany

# 2<sup>nd</sup> Winter School on Molecular Chemistry

## Programme

Sunday, March 22<sup>nd</sup>, 2009:

### *Evening Session*

- 20:00 – 20:20      Henrik René Bock  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Reactions of digallane with functionalised carboxylic acids*
- 20:20 – 20:40      Sarina Zemke  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*New hydrogallation products and their synthesis*
- 20:40 – 21:00      Martina Rohling  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Hydroalumination and –gallation of silyl- and germlycentered  
oligoalkynes*
- 21:00 – 21:20      Dr. Jan J. Weigand  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Cationic pnictogen centers as building blocks for small molecule ring  
and cluster systems*

Monday, March 23<sup>rd</sup>, 2009:

*Morning Session*

8:40 – 9:00

Nina Wichner

Institut für Physikalische Chemie, Universität Münster, Germany  
Van't Hoff Institute for Molecular Sciences, University of Amsterdam,  
The Netherlands

*Sinter-resistant metal nanoparticle catalysts in Sol-Gel containers*

9:00 – 9:20

Sandra Fibikar

Physikalisches Institut, Universität Münster, Germany

*Zeolite L nanocontainers. A structural modification.*

9:20 – 9:40

Reagan Davidson

Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany

*The stepwise chlorination reaction of a cyclo-tetraphosphetane in the presence of a lewis acid*

*Evening Session*

20:00 – 20:50

Prof. Dr. Jan Reedijk

Leiden Institute of Chemistry, University of Leiden, The Netherland

*Bifunctionality in ligands and coordination compounds: application in design of new materials, catalysts and drugs.*

20:50 – 21:40

Prof. Dr. Cornelis Johannes Elsevier

Van't Hoff Institute for Molecular Sciences, University of Amsterdam,  
The Netherland

*Palladium Complexes with Low Coordination Number for Catalysis*

Tuesday, March 24<sup>th</sup>, 2009:

*Morning Session*

8:40 – 9:00

Kristof Seubert

Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany

*Alignment of linearly coordinating metal ions inside of artificial DNA*

9:00 – 9:20

Dominik A. Megger

Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany

*Oligonucleotides containing modified 1,3-dideazapurines: an approach to align metal ions along the DNA helical axis*

9:20 – 9:40

Nicole Duepre

Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany

*Oligonucleotides with a bipyridine-based nucleoside: Aggregation in the presence of metal ions*

*Evening Session*

20:00 – 20:50

Dr. Eelco Ruijter

Department of Chemistry/Free University of Amsterdam, The  
Netherland

*Multicomponent reactions – Beyond compound libraries*

20:50 – 21:40 Prof. Dr. Ernst-Ulrich Würthwein  
Organisch-Chemisches Institut, Universität Münster, Germany  
*Novel flexible and conformationally restrained oligonitriles for a  
Aggregates and metal complexes*

Wednesday, March 25<sup>th</sup>, 2009:

*Morning Session*

8:40 – 9:00 Peter Hauwertirt  
Van't Hoff Institute for Molecular Sciences, University of Amsterdam,  
The Netherland  
*Pd(0)/NHC- complexes as catalysts for stereoselective transfer  
semihydrogenation of alkynes*

9:00 – 9:20 Stefan Warsink  
Van't Hoff Institute for Molecular Sciences, University of Amsterdam,  
The Netherland  
*Hemilabile donor-functionalized NHCs as ligands in low-valent  
Palladium complexes*

9:20 – 9:40 Dr. Mareike Jahnke  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Complexes Derived from Polydentate Carbene Ligands*

### *Evening Session*

- 20:00– 20:20      Carolin Dumke  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Stabilization of  $\beta$ -amino-functionalized isocyanides by coordination to transition metal centers*
- 20:20 – 20:40      Fabian Conrady  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Synthesis of methyl-palladium complexes with bridged benzimidazolin-2-ylidene ligands*
- 20:40 – 21.30      Prof. Dr. Jens Müller  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Metals in the middle of DNA: Nucleic acids as one-dimensional cavities*

**Thursday, March 26<sup>th</sup>, 2009**

### *Morning Session*

- 8:40 – 9:00      Johannes Dömer  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Self assembly of mono- and dinuclear coordination compounds with S-S/N-O ligands*

9:00 – 9:20            Susanne Ruppel  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Synthesis of tripodal complexes based on tris-(benzene-o-dithiolato)  
ligands*

9:20 – 9:40            Jule Clodt  
Organisch-Chemisches Institut, Universität Münster, Germany  
*Building blocks for supramolecular structures  
based on N-acylamidines*

***Evening Session***

20:00 – 20:20        Holger Kruse  
Organisch-Chemisches Institut, Universität Münster, Germany  
*Accurate description of fundamental forces inside a hydrogen filled  
endohedral C<sub>60</sub> cage*

20:20 – 20:40        Thorsten Rössmann  
Organisch-Chemisches Institut, Universität Münster, Germany  
*Polyvalent oligonitrile derivatives*

20:40 – 21:00        Steffi Roter  
Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany  
*Cycloaddition reactions of Ga(I) and In(I) compounds*



21:00 – 21:20

Babak Rezaeirad

Institut für Anorganische und Analytische Chemie, Universität Münster,  
Germany

*Thermolysis in the synthesis of aluminum and gallium nitride cages*

21:20

*Closing Remarks*

**Abstracts of the  
keynote lectures**

**Abstracts of the  
short lectures**

