

Wednesday, April 22nd, 2015

TU Graz, Kopernikusgasse 24, HS H

8:00 – 8:50 **Registration**
9:00 – 9:20 **Introduction**
 Prof. Renate Dworzak
 Prof. Frank Uhlig,

Student Session 1: Organic Chemistry

CHAIR: Jakob Pletz

9:20 – 9:40 S1 Mario Leypold
 Phenazine biosynthesis – A novel enzyme mechanism in nature?
9:40 – 10:00 S2 Nikolaus Guttenberger
 Development of potent PhzE-inhibitors – A new target for antibiotic
 intervention
10:00 – 10:20 S3 Jakov Ivkovic
 Design and synthesis of inhibitors of dipeptidyl peptidase-III
10:20 – 10:40 S4 Melanie Trobe
 A modular synthesis of teraryl-based α -helix mimetics for inhibition of
 protein-protein interactions
10:40 – 10:55 **Coffee Break**

Student Session 2: Physical Chemistry

CHAIR: Klaus Luef

10:55 – 11:15 S5 Josua Bächle
 Electron self-exchange in CW-EPR spectroscopy applied to the radical
 cation of zinctetraphenylporphyrine
11:15 – 11:35 S6 Alexander Wankmüller
 Magnetic field effect on p-type delayed fluorescence in organic systems
11:35 – 11:55 S7 Christina Wappl
 Investigation on bulk effects, heat dissipation and oxygen inhibition in
 polymerisation reactions with a thermal camera
11:55 – 12:15 S8 Roman Geier
 Oxygen inhibition in radical polymerization
12:15 – 13:45 **Lunch Break (Sägewerk)**

Plenary Lecture

CHAIR: Prof. Kroutil

13:45 – 14:35 PL1 Ass. Prof. Michael Schnürch
 Mechanistic and kinetic studies of the direct alkylation of benzylic
 amines – Surprisingly an sp^2 C-H activation
14:35 – 14:45 **DPx Fine Chemicals Austria (Industry)**
14:45 – 15:00 **Coffee Break**

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Student Session 3: Material Science

CHAIR: Dominik Wohlmuth

- 15:00 – 15:20 S9 David Reishofer
Deuterated cellulose thin films – Challenges and surprises
- 15:20 – 15:40 S10 Marlena Uitz
Li insertion behavior of Rutile TiO₂ nanorods as anode material in
Lithium-ion batteries
- 15:40 – 16:00 S11 Walter Schmidt
Small change – great effect: Steep increase of Li ion dynamics in Li₄Ti₅O₁₂
at the early stages of chemical Li insertion ($x = 0.1, x = 0.3$)
- 16:00 – 16:20 S12 Simon Leimgruber
Investigation of the rubber-brass interface using the olefin-metathesis
method
- 16:20 – 16:35 **Coffee Break**

Student Session 4: Organic Chemistry II

CHAIR: Marko Kljajic

- 16:35 – 16:55 S13 Cornelia Hojnik
Are *D-manno* configured Amadori products ligands of the bacterial lectin
FimH?
- 16:55 – 17:15 S14 Manuel Zoidl
Application of the SAW-Grignard reaction for the preparation of the
iminoalditol based glycoprobes
- 17:15 – 17:35 S15 Martin Thonhofer
A new synthesis of C-5a-derivatives of 4-*epi*-isofagomine and analogues
- 17:35 – 17:55 S16 Michael Schalli
A new synthetic approach to *D-galacto* configured inositols and
carbacyclic amines
- 18:15 – 20:00 **Poster Session**

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Plenary Lecture

CHAIR: Prof. Gescheidt-Demner

9:00 – 9:50 PL2 Dr. Ivana Fleischer
New reagents and catalysts for the functionalization of alkenes

9:50 – 10:10 **Coffee Break**

Student Session 5: Organic Chemistry III

CHAIR: Nikolaus Turrini

10:10 – 10:30 S17 Elisabeth Eger
Enzymatic oxidative alkene cleavage

10:30 – 10:50 S18 Judith Farnberger
Biocatalytic dealkylation

10:50 – 11:10 S19 Mathias Pickl
Biocatalytic tuning of an oxidase side reaction

11:10 – 11:30 S20 Philipp Neu
Characterising of renewable resources by high-resolution mass spectrometry

11:30 – 13:00 **Lunch Break (Sägewerk)**

Student Session 6: Inorganic Chemistry

CHAIR: Thomas Hafner

13:00 – 13:20 S21 Małgorzata Walewska
Phosphane adducts of disilylated and digermylated germynes – synthesis and reactivity

13:20 – 13:40 S22 Mohammad Meshgi
Organosilylgermane compounds as precursor for solution-liquid-solid synthesis of germanium nanowires

13:40 – 14:00 S23 Filippo Stella
Rearrangement of polysilanes as an experimental approach to oligosilanyl cation

14:00 – 14:20 S24 Pierre Baumann
Synthesis and characterization of nanosized silicon for lithium ion batteries

14:20 – 14:40 S25 Niklas Zwettler
Re(V) complexes with multidentate (O,N)-bridged ligands in the catalysis of oxygen atom transfer reactions

14:40 – 14:55 **Coffee break**

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Student Session 7: Inorganic & Analytical Chemistry

CHAIR: Bernhard Müller

- 14:55 – 15:15 S26 Lydia Peschel
Biomimetic tungsten alkyne-complexes relevant to acetylene hydratase
- 15:15-15:35 S27 Michael Tüchler
Zinc scorpionate complexes for the biomimetic modelling of carbonic anhydrase
- 15:35 – 15:55 S28 Bassam Lajin
The variability in urinary selenium excretion following selenium supplementation
- 15:55 – 16:15 S29 Simone Braeuer
Are wild small mammals suited as bioindicators for trace element levels in the environment?
- 16:15 – 16:30 **Coffee Break**

Student Session 8: Analytical Chemistry

CHAIR: Kathrin Ertl

- 16:30 – 16:50 S30 Markus Rumpler
Single-port artificial pancreas system including a subcutaneous optical glucose sensor
- 16:50 – 17:10 S31 Christoph Staudinger
A pH-optode for seawater monitoring
- 17:10 – 17:30 S32 Josef Ehgartner
Online analysis in microreactors with integrated optical chemical sensors
- 17:30 – 17:50 S33 Susanne Schutting
Novel indicator dyes for optical carbon dioxide sensors
- 17:50 – 18:10 S34 Paul Tirk
Enclosed inductively coupled plasma: principles and fundamental characterization
- 18:10 – 18:20 **Coffee Break**

Award Ceremony & Closing Remarks

- 18:20 – 18:40 Prof. Georg Gescheidt-Demner, TU Graz
Prof. Wolfgang Kroutil, Uni Graz

Social Programme

- 19:00 Departure Shuttle Bus to Landhaus Jöbstl
- 19:20 – open end Dinner at Landhaus Jöbstl
- 23:30 Departure Shuttle Bus to Stremayrgasse 9