Fall Meeting 2009
Herbstversammlung 2009
Assemblée d’automne 2009

Friday, September 4, 2009
Freitag, 4. September 2009
Vendredi, 4 septembre 2009
Organizing Committee

MER Dr Sandrine Gerber (Chair) – EPF Lausanne
Prof. Claude Paul – University of Fribourg
Prof. Harm-Anton Klok – EPF Lausanne
Dr. Hans Peter Märki – F. Hoffmann-La Roche Ltd
Prof. Raffaele Mezzenga – University of Fribourg
PD Dr. Stefan Schürch – University of Bern
Prof. Jay Siegel – University of Zurich

Prof. Paul Dyson (Co-chair) – EPF Lausanne
Prof. Nathaniel Finney – University of Zurich
Dr. Fabio Mariotti – ETH Zürich
Prof. Frédéric Merkt – ETH Zürich
Prof. Jacques-Edouard Moser – EPF Lausanne
Prof. Kay Severin – EPF Lausanne
Prof. Thomas Ward – University of Basel

Secretariat

Ms. Sandra Jeanneret, Ms. Corinne Weibel,
Institute of Chemical Sciences and Engineering, Ecole Polytechnique Fédérale de Lausanne
SB ISIC-GE, Station 6, CH-1015 Lausanne
Tel.: +41 21 693 3611, E-mail: scs.fallmeeting@epfl.ch

Information

No registration for SCS members is required to participate in the meeting, coffee breaks and lunch, all of which are free of charge. *SCS members must identify themselves at the reception with their membership card.*

Non-members of the SCS will be asked to pay a CHF 50.– entrance fee, which will provide access to the conferences, poster sessions, coffee breaks and lunch.

**Lunch:** Sandwiches, pastries and drinks will be offered by the SCS in the vicinity of the poster session. A cafeteria and a restaurant are located next to the meeting venues.

**Coffee breaks:** Coffee and drinks will be available until 11.30 in the morning and a coffee break will be organized between 17.00 and 17.45, before the SCS DSM and the SCS Mettler-Toledo Awards presentation.

**No additional copies of the program or abstracts** will be available at the meeting. All information on the Fall Meeting is contained in this issue of CHIMIA. Please remember to bring it with you.

Transportation

**By train:** Only limited parking space will be available on the campus of the Ecole Polytechnique Fédérale de Lausanne. Hence, traveling by train is recommended. EPFL campus can be easily reached by metro (tramway), either from Lausanne or Renens train stations. Travelers arriving at Lausanne can continue their journey with the metro (m2 line from the train station to Flon, m1 line from Flon to UNIL-Sorge). From Renens station, the trip by metro (m1 line) to the UNIL-Sorge stop is 7 min. More information on how to get to EPFL campus, timetables and interactive maps are available on the webpage at [http://map.epfl.ch/](http://map.epfl.ch/).

**By car:** On the motorway, follow Lausanne-Sud, exit at UNIL-EPFL, drive west for 1.7 km and then turn right at the sign EPFL. Limited space will be available at the parking lot ‘Pavillon provisoire’ (see EPFL campus map). One-day parking permits will be sold on the parking lot and at the registration desk for CHF 5.–.

**Train Timetable**

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The meeting will be held on the first floor of BS and CE buildings. Participants are kindly requested to use exclusively the East entrance on the first floor of BS building. The nearest tramway station is UNIL-Sorge (upper-right corner on the map). The way from the tramway station and from the parking lot to the entrance of the conference premises will be marked out with yellow signs.

**Detailed Map of Lecture Halls**

- **CE 6**: Opening Ceremony, Awards presentations, Plenary lectures, and Inorganic and Coordination Chemistry
- **CE 1 and CE 3**: Organic Chemistry
- **CE 4**: Physical Chemistry
- **CE 2**: Analytical Chemistry
- **CE 5**: Medicinal Chemistry
- **CE 106**: Computational Chemistry
- **BS 160**: Polymer Sciences

Main Hall, SPO, CE 100, CE 101, CE 102, CE 103, CE 104, CE 105, BS 170: Posters
Sponsors

The organization of the meeting gratefully acknowledges the generous support of these companies, either individually, or as member companies of the KGF (Kontaktgruppe für Forschungsfragen).

Commercial Exhibition

A number of exhibitors will be presenting products and services of direct interest to the scientists attending the Fall Meeting. These companies have already confirmed their participation. See the meeting website (http://scs-fallmeeting.epfl.ch/displays.html) for an updated list of commercial booths.
Program of the Fall Meeting 2009

PLENARY SESSION

09.45–10.45 Opening Ceremony
EPFL, CE 6
Opening address
Giorgio Margaritondo
EPFL Vice president for academic affairs

Presentation of the Max-Lüthi Award 2009
Chair: Georg Fräter, SCS President

Presentation of the Werner Prize 2009
Chair: Georg Fräter, SCS President

Lecture of the Werner Prize Laureate 2009
Roland K. O. Sigel
University of Zurich
‘Metal ions guide nucleic acid structure and function’
Abstract 1

PARALLEL SESSIONS

11.00–17.00 Division of Analytical Chemistry

11.00–11.30 General Assembly of the members of the Division
EPFL, CE 2

11.30–12.15 Invited lecture
EPFL, CE 2
Abstract 2

12.15–13.00 Lectures
EPFL, CE 2
Abstracts 3–5

13.00–14.15 Poster Session
EPFL, CE 100
Abstracts 13–55

14.15–15.00 General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.00–17.00 Lectures
EPFL, CE 6
Abstracts 64–71

11.00–17.30 Division of Chemical Research

11.00–11.30 General Assembly of the members of the Division
EPFL, CE 6

11.30–17.00 Computational Chemistry

11.30–13.15 Lectures
EPFL, CE 106
Abstracts 106–110

13.15–14.15 Poster Session
EPFL, CE 105
Abstracts 117–128

14.15–15.00 General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.00–17.00 Lectures
EPFL, CE 106
Abstracts 111–116

11.30–17.00 Inorganic and Coordination Chemistry

11.30–13.15 Minisymposium in honor of Jean-Claude Bünzli
EPFL, CE 6
Abstracts 129–131

13.15–14.15 Poster Session
EPFL, CE SPO
Abstracts 142–247

14.15–15.00 General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.15–17.00 Lectures
EPFL, CE 6
Abstracts 132–141

11.00–17.00 Division of Medicinal Chemistry

11.00–11.10 General Assembly of the members of the Division
EPFL, CE 5

11.15–13.15 Lectures
EPFL, CE 5
Abstracts 56–63

13.15–14.15 Poster Session
EPFL, CE 103
Abstracts 72–105

11.30–17.30 Organic Chemistry

Session A1 Synthesis and catalysis
11.30–13.00 Lectures
EPFL, CE 1
Abstracts 248–253

13.00–13.10 Poster talks
EPFL, CE 1
Abstracts 280–281
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<td>11.30–13.00</td>
<td>Techniques, properties and mechanisms</td>
<td>EPFL, CE 3</td>
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<td>Synthesis and catalysis</td>
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<td>Physical Chemistry</td>
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<td>Division of Polymers and Colloids</td>
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<td>Lectures</td>
<td>EPFL, BS 160</td>
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DETAILED PROGRAM

Division of Analytical Chemistry

11.00–11.30 General Assembly of the members of the Division
EPFL, CE 2
Chair: Fritz Erni

11.30–12.15 Invited lecture
EPFL, CE 2

Martin Schär
AC Labor Spiez
‘Analytical chemistry in the Bernese Oberland: Detection and identification of chemical warfare agents at the SPIEZ LABORATORY’
Abstract 2

12.15–13.00 Lectures
EPFL, CE 2
Abstracts 3–5
Chair: Stefan Schürch

12.15–12.30 Isabel Lechner, D. Günther, B. Hattendorf, J. Hummel, M. Clauss
University of Zurich, CH-8057 Zürich
ETH Zürich, CH-8093 Zürich
University of Bonn, Bonn, Germany
‘Investigating ruminant digestive physiology using element markers and ICP-MS’
Abstract 3

12.30–12.45 Carine Steiner, T. Keller, I. Burkard, A. Von Eckardstein, K. Rentsch
University Hospital Zurich, CH-8091 Zürich
‘HPLC-MS for the investigation of bile acids as potential new biomarkers’
Abstract 4

12.45–13.00 Aline Staub\textsuperscript{bc}, J. Schappler\textsuperscript{bc}, M. Saugy\textsuperscript{bc}, S. Rudaz\textsuperscript{ac}, J.-L. Veuthey\textsuperscript{ac}
School of Pharmaceutical Sciences, University of Lausanne, CH-1015 Lausanne
Swiss Centre of Applied Human Toxicology, University of Geneva, CH-1211 Genève 4
‘New insights in intact protein analysis with CE-TOF/MS’
Abstract 5

13.00–14.15 Poster Session
EPFL, CE 100
Abstracts 13–55

14.15–15.00 General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.15–17.00 Lectures
EPFL, CE 2
Abstracts 6–12
Chair: Christian Staub

Division of Medicinal Chemistry

11.00–11.10 General Assembly of the members of the Division
EPFL, CE 5
Chair: Hans Peter Märki

11.15–13.15 Lectures
EPFL, CE 5
Abstracts 56–63
Chair: Yves Auberson

15.15–15.30 Hanspeter Andres, H. Haerri, B. Niederhauser, S. Wanderli, U. Feller
Federal Office of Metrology METAS, CH-3003 Berne-Wabern
‘Proposed redefinition of the unit mole’
Abstract 6

15.30–15.45 Loïc Dayon, N. Turck, A. Scherl, D. F. Hochstrasser, P. R. Burkhard, J.-C. Sanchez
University of Geneva, CH-1211 Geneva 4
‘Isobaric tagging-based selective quantitation of CSF proteins reporter calibration curves’
Abstract 7

15.45–16.00 Thomas Schmid, J. Studler, R. Zenobi
ETH Zürich, CH-8093 Zürich
‘Nanoscale imaging and chemical analysis using combinations of atomic force microscopy and Raman microspectroscopy’
Abstract 8

16.00–16.15 Marek Orzechowski, M. Meuwly
University of Basel, CH-4056 Basel
‘Water in chromatographic interfaces – computational studies’
Abstract 9

16.15–16.30 Robert Brogioli, B. Hattendorf, D. Günther
ETH Zürich, CH-8093 Zürich
‘Electrothermal treatment of laser generated aerosols: A route to online separation of elements for LA-ICPMS’
Abstract 10

16.30–16.45 Mélanie Abonnenc, J. Josserand, H. H. Girault
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Sandwich mixer-reactor: Influence of the diffusion coefficient and flow rate ratios’
Abstract 11

16.45–17.00 Julien Billeter, Y.-M. Neuhold, K. Hungerbühler
ETH Zürich, CH-8093 Zürich
‘Spectral validation of rank deficient kinetic models’
Abstract 12

17.00–17.45 Coffee Break

17.45–18.00 Presentation of the Awards for Best Oral and Poster Presentations
School of Pharmaceutical Sciences, University of Geneva, University of Lausanne, CH-1211 Geneva  
‘Hydrophobic interactions influence the conformational prevalence of e-Src tyrosine kinase domain’  
Abstract 56

‘Novartis Pharma AG, CH-4002 Basel  
Vernalis Ltd, Cambridge, UK  
4,5-Diarylisoxazole and 2-amino-thienopyrimidine Hsp90 chaperone inhibitors as antitumor agents’  
Abstract 57

12.15–12.30  **Laura M. Salonen**, D. W. Banner, F. Diedrich  
ETH Zürich, CH-8092 Zürich  
‘Mycolactones A and B: Total synthesis and generation of antibodies’  
Abstract 58

Novartis Institute for BioMedical Research, CH-4002 Basel  
‘Design and characterization of an in vivo active BACE inhibitor’  
Abstract 61

12.45–13.00  **Olivier Schwardt**, G. Gääthje, A. Vedani, Stefanie Mesch, G.-P. Gao, S. Kelm, B. Ernst  
University of Basel, CH-4056 Basel  
University of Bremen, D-28334 Bremen, Germany  
‘Examination of the biological role of sialic acid in gangliosides binding to the myelin-associated glycoprotein (MAG)’  
Abstract 62

F. Hoffmann-La Roche Ltd., CH-4070 Basel  
‘Asymmetric synthesis and receptor pharmacology of the group II mGlur receptor ligand (1S,2R,3R,5R,6S)-2-amino-3-hydroxy-bicyclo[3.1.0]hexane-2,6-dicarboxylic acid – HYDIA’  
Abstract 63

13.15–14.15  **Poster Session**  
EPFL, CE 103  
Abstracts 72–105

14.15–15.00  **General Assembly of the members of the Swiss Chemical Society**  
EPFL, CE 6

15.00–17.00  **Lectures**  
EPFL, CE 5  
Abstracts 64–71  
Chair: Karl-Heinz Altmann

15.00–15.15  **Silvia Anthoine Dietrich**, J. Gertsch, K.-H. Altmann  
ETH Zürich, CH-8093 Zürich  
‘Total synthesis of new functionalized epothilone analogs for prodrug design and tumor targeting’  
Abstract 64

University of Bern, CH-3012 Bern  
‘Synthesis and biological evaluation of novel NMDA receptor and glutamate transporter ligands guided by virtual screening of the chemical universe database GDB’  
Abstract 65

15.30–15.45  **Caterina Bissantz**  
F. Hoffmann-La Roche Ltd., CH-4070 Basel  
‘Molecular recognition – A drug designers’ guide of non-covalent protein-ligand interactions’  
Abstract 66

15.45–16.00  **Brian Cutting**, K. Johansson, H. Kovacs, S. Rabhani, B. Ernst  
University of Basel, CH-4056 Basel  
‘The H1 domain of the asialoglycoprotein receptor: Towards a structural understanding of receptor-mediated endocytosis’  
Abstract 67

F. Hoffmann-La Roche Ltd., CH-4070 Basel  
‘11βHSD1 inhibitors for type 2 diabetes’  
Abstract 68
16.15–16.30  Alexander Titz, A. Butschi, K. Paschinger, K. Nöbauer, T. Hennet, B. Henrissat, M. Hengartner, I. B. H. Wilson, M. Künzler, M. Aebi
a ETH Zürich, CH-8092 Zürich
b University of Zurich, Institute of Molecular Biology, CH-8057 Zürich
c University of Veterinary Medicine, Vienna, Austria
d University of Zurich, Institute of Physiology, CH-8057 Zürich
e University of Aix-Marseille I and II, France
f University Aix-Marseille I and II, France
‘Identification of a member of a novel galactosyltransferase family unravels the molecular basis of the nematotoxicity of galectin CGL2’
Abstract 69

School of Pharmaceutical Sciences, University of Geneva, University of Lausanne, CH-1211 Geneva
‘Determination of the lipophilicity of Cyclosporin A by UHPLC’
Abstract 70

a Novartis Institute for BioMedical Research, Neuroscience Disease Area, CH-4002 Basel
b Novartis Institute for BioMedical Research, Global Discovery Chemistry-Neuroscience, CH-4002 Basel
‘Gamma-lactams – A novel scaffold for highly potent and selective α7 nicotinic acetylcholine receptor agonists’
Abstract 71

17.00–17.45  Coffee Break

17.45–18.00  Presentation of the Awards for Best Oral and Poster Presentations

Division of Chemical Research
11.00–11.30  General Assembly of the members of the Division
EPFL, CE 6

Computational Chemistry
11.30–13.15  Lectures
EPFL, CE 106
Abstracts 106–110
Chair: Jörg Hutter

11.30–11.50  Christoph R. Jacob, S. Luber, M. Reiher
ETH Zürich, CH-8093 Zürich
‘Analysis of vibrational spectra of poly-peptides in terms of localized vibrations’
Abstract 106

11.50–12.10  Peter A. Limacher, S. Borini, H. P. Lüthi
ETH Zürich, CH-8093 Zürich
‘The effect of π conjugation on bond length alternation and (hyper)polarizability properties of polyacetylene oligomer chains’
Abstract 107

12.10–12.30  Nuria Platter, J. D. Doll, M. Meuwly
a University of Basel, CH-4056 Basel
b Brown University, Providence, Rhode Island, USA
‘Spatial averaging: A new enhanced sampling scheme for condensed phase systems’
Abstract 108

12.30–12.50  Stephan N. Steinmann, G. Csonka, C. Corminboeuf
a University of Basel, CH-4056 Basel
b Brown University, Providence, Rhode Island, USA
‘Universal inter- and intramolecular empirical correction formula for generalized gradient approximation density functional theory’
Abstract 109

13.15–14.15  Poster Session
EPFL, CE 105
Abstracts 117–128

14.15–15.00  General Assembly of the members of the Swiss Chemical Society
EPFL, CE6

15.00–17.00  Lectures
EPFL, CE 106
Abstracts 111–116
Chair: Claude Daul

15.00–15.20  Sabyashachi Mishra, M. Meuwly
University of Basel, CH-4056 Basel
‘Kinetics of ligand docking sites in truncated hemoglobin: Combining atomistic simulations and transition network analysis’
Abstract 111

15.20–15.40  Pablo Campomanes, P. J. Dyson, U. Röthlisberger
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Novel anticancer drugs and their interaction with non-classical targets: Insights from molecular dynamics simulations’
Abstract 112

15.40–16.00  Stefano Vanni, M. Neri, I. Tavernelli, U. Röthlisberger
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Insights into structure and function of adren-
ergic receptors from all-atom molecular
dynamics simulations’
Abstract 113

16.00–16.20  B. Li, Cesare Mollica, J. Vanícˇek
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Efficient evaluation of accuracy of molecular
quantum dynamics using dephasing
representation’
Abstract 114

16.20–16.40  Florian Senn, C. Daul
University of Fribourg, CH-1700 Fribourg
‘Calculation of chemical shift using LF-DFT’
Abstract 115

16.40–17.00  Matija Zlatarab, C.-W. Schlüpferc, C. Daula
a University of Fribourg, CH-1700 Fribourg
b Center for Chemistry, University of Belgrade, Serbia
‘Density functional theory for the study of the
multimode Jahn-Teller effect’
Abstract 116

17.00–17.45  Coffee Break

17.45–18.00  Presentation of the Awards for Best
Oral and Poster Presentations

Inorganic and Coordination Chemistry
11.30–11.55  Minisymposium in honor of
Jean-Claude Bünzli
EPFL, CE 6
Abstract 129–131
Chair: Claude Piguet, Thomas Ward

11.30–12.05  David Parker
Durham University, Durham, UK
‘Tailored lanthanide optical probes’
Abstract 129

12.05–12.40  Kenneth N. Raymond, E. G. Moore,
A. P. S. Samuel, A. D’Aleo
University of California, Berkeley, California
94720, USA
‘Excitation and sequestration of the lan-
thanides, a coordination chemistry challenge’
Abstract 130

12.40–13.15  Jean-Claude G. Bünzli
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Enlightening science and technology with
lanthanide luminescence’
Abstract 131

13.15–14.15  Poster Session
EPFL, CE SPO
Abstracts 142–247

14.15–15.00  General Assembly of the members of the
Swiss Chemical Society
EPFL, CE6

15.15–17.00  Lectures
EPFL, CE 6
Abstracts 132–141
Chair: Kay Severin, Xile Hu

15.15–15.25  Dafa Chen, B. Obrist, R. Scopelliti, X. Hu
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Iron carbonyl pyridonate complexes related to the
active site of the [Fe]-hydrogenase (Hmd)’
Abstract 132

15.25–15.35  K. M. Fromm, I. Hauser-Gerspach, R. Landmann, Tünde Vig Slenters
University of Fribourg, CH-1700 Fribourg
‘Nano-structured Ag-compounds as antimicrobial coatings’
Abstract 133

15.35–15.45  Sébastien Rochat, J. Gao, K. Severin
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Fluorescence sensors for lithium ions or small
peptides in water and serum’
Abstract 134

15.45–15.55  Anna K. Renfrew, P. J. Dyson
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Ru(ii)arene complexes as versatile antitumor agents’
Abstract 135

15.55–16.05  Henrik Braband, Y. Tooyama, R. Alberto
University of Zurich, CH-8057 Zürich
‘Synthesis of high valent [\(^{99m}\)TcO\(_3\)]\(^+\) complexes and [3+2] cycloaddition reactions
with alkenes in water as a novel direct labeling
strategy’
Abstract 136

16.05–16.15  Claudio Gandolfi, G. Morgan, M. Albrecht
University of Fribourg, CH-1700 Fribourg
‘Tailoring spin crossover in solution through
molecular recognition sites’
Abstract 137

16.15–16.25  Alexey Fedorov, L. Batiste, P. Chen
ETH Zürich, CH-8093 Zürich
‘Olefin cross-metathesis on gold’
Abstract 138

16.25–16.35  Josef Hamacek
University of Geneva, CH-1211Geneva
‘Design and properties of polynuclear Ln(III)
complexes’
Abstract 139
16.35–16.45  **E. Baranoff, J. Ii, M. Grätzel, Md. Khaja Nazeeruddin**  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Tuning of emission wavelength by modification of main ligand in iridium complexes’  
Abstract 140

16.45–16.55  **Robert Büchel**a, W. Olivera, S. E. Pratsinisb, A. Baikerb  
ETH Zürich, Particle Technology Laboratory, CH-8093 Zürich  
ETH Zürich, Institute for Chemical and Bioengineering, CH-8093 Zürich  
‘The proximity of Pt in NOx storage-reduction catalysts’  
Abstract 141

17.00–17.45  **Coffee Break**

17.45–18.00  **Presentation of the Awards for Best Oral and Poster Presentations**

**Organic Chemistry**

**Session A1**  Synthesis and catalysis

11.30–13.00  **Lectures**  
EPFL, CE 1  
Abstracts 248–253  
Chair: Karl Gademann

11.30–11.45  **Roman Novikov, G. Bernardinelli, J. Lacour**  
University of Geneva, CH-1211 Genève 4  
‘Highly enantioselective epoxidation of alkene and allylic alcohols using axially chiral iminium salts as catalysts’  
Abstract 248

11.45–12.00  **C. Hamel, Evgeny V. Prusov, J. Gertsch, B. Schweizer, K.-H. Altmann**  
ETH Zürich, CH-8093 Zürich  
‘Studies toward total synthesis and biological activity of Xenicanes’  
Abstract 249

12.00–12.15  **Christine Hawner, K. Li, V. Cirriez, A. Alexakis**  
University of Geneva, CH-1211 Genève 4  
‘Creation of quaternary aryl substituted asymmetric centers through conjugate addition’  
Abstract 250

12.15–12.30  **Didier Zurwerra, J. Gertsch, K.-H. Altmann**  
ETH Zürich, CH-8093 Zürich  
‘Total syntheses and SAR studies of (−)-Zampanolide and (−)-Dactylolide’  
Abstract 251

12.30–12.45  **Chandra M. Rao Volla, R. Loska, P. Vogel**  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Iron-catalyzed Mizoroki-Heck cross-coupling reaction with styrenes and oxidative coupling of tertiary amines with terminal alkynes’  
Abstract 252

12.45–13.00  **Claudia J. Exner, P. Vogel**  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘One-pot double chain elongation and desymmetrization for synthesis of polyketide or polypropionate fragments’  
Abstract 253

13.00–13.10  **Poster talks**  
EPFL, CE 1  
Abstracts 280–281  
Valentina Aureggi, Abstract 280  
Jean-Baptiste Langlois, Abstract 281

**Session B1**  Techniques, properties and mechanisms

11.30–11.45  **Raffael Koller, K. Stanek, D. Stolz, R. Aardoom, K. Niedermann, A. Togni**  
ETH Zürich, CH-8093 Zürich  
‘Zn-mediated formation of trifluoromethyl ethers from alcohols using hypervalent iodine trifluoromethylation reagents’  
Abstract 264

11.45–12.00  **I. Fedotenko, P. L. Zaffalon, Andreas Zumbuehl**  
University of Geneva, CH-1211 Genève 4  
‘Nonatural phospholipids’  
Abstract 265

12.00–12.15  **Paola Romanoto, S. Duttywer, A. Linden, K. K. Baldridge, J. S. Siegel**  
University of Zurich, CH-8057 Zürich  
‘Intramolecular stabilized silylium ions: mechanism of interaction with different electron demanding substituents’  
Abstract 266

12.15–12.30  **Luc Patiny**  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘www.mylims.org: My database of chemical information’  
Abstract 267

12.30–12.45  **Silvia V. Rocha, N. S. Finney**  
University of Zurich, CH-8057 Zürich  
‘Synthesis and photophysical characterization of alternating thiophene-pyridine oligomers’  
Abstract 268

12.45–13.00  **Grégory Upert**, C. Mertenb, H. Wennemerya  
University of Basel, CH-4056 Basel  
Laboratoire de Biologie Chimique, ISIS / ULP, 67083 Strasbourg, France  
‘Nanoliter plates: new screening method in solution of ‘one bead compound’ libraries’  
Abstract 269

13.00–13.05  **Poster talk**  
EPFL, CE 1  
Abstract 282  
Jens Peter Hermes, Abstract 282
**Sessions A & B**

13.15–14.15  **Poster Session**
EPFL, CE SPO  
Abstracts 283–373

14.15–15.00  **General Assembly of the members of the Swiss Chemical Society**  
EPFL, CE6

**Session A2**  
**Synthesis and catalysis**

15.00–17.30  **Lectures**  
EPFL, CE 1  
Abstracts 254–263  
Chair: Jérôme Waser

15.00–15.15  **Yue Zou**, Q. Wang, A. Goeke  
Fudan University, 200433, Shangai, P. R. China  
‘The nonclassical carbocation problem in gold-catalyzed homo-Rautenstrauch cyclizations’  
Abstract 254

15.15–15.30  **Sylvain Laclef**, P. Vogel  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Expeditious synthesis of anti,anti-dipropionate stereotriads. Application towards total synthesis of polypropionates’  
Abstract 255

15.30–15.45  **Martina Austeri**, D. Linder, J. Lacour  
University of Geneva, CH-1211 Genève 4  
‘CpRu-catalyzed regio- and enantioselective decarboxylative allylic rearrangements’  
Abstract 256

15.45–16.00  **T.-H. Liu**, Claire-Lise Ciana, J. R. Brandt, M. J. Gaunt  
University of Cambridge, Cambridge, UK  
‘Copper catalysed C–H arylation of electron rich aromatics’  
Abstract 257

16.00–16.15  **Guillaume Lapointe**, P. Renaud  
University of Bern, CH-3012 Bern  
‘Broadening the scope of the radical carboazidation: Application to the synthesis of alkaloids’  
Abstract 258

16.15–16.30  **Markus Wiesner**, H. Wennemers  
University of Basel, CH-4056 Basel  
‘Peptides as catalyst for asymmetric 1,4-addition reactions of aldehydes to nitroalkenes’  
Abstract 259

16.30–16.45  **Marco Ranocchiari**, A. Mezzetti  
ETH Zürich, CH-8093 Zürich  
‘Asymmetric aziridination catalyzed by Ruthenium / PNNP complexes’  
Abstract 260

16.45–17.00  **Tom M. Woods**, H. Jesse, K. Gademann  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Synthesis and biological evaluation of the neuritogenic steroidal lactone Withanolide A and its derivatives’  
Abstract 261

17.00–17.15  **Tobias Seiser**, O. A. Roth, N. Cramer  
ETH Zürich, CH-8093 Zürich  
‘Enantioselective rhodium catalyzed C–C bond activations’  
Abstract 262

17.15–17.30  **Michele Gatti**, L. Vieille-Petit, X. Luan, A. Linden, R. Dorta  
University of Zurich, CH-8057 Zürich  
‘Application of N,N’-naphthyl substituted saturated NHCS in Ru-catalyzed olefin metathesis reactions’  
Abstract 263

**Session B2**  
**Techniques, properties and mechanisms**

15.00–17.30  **Lectures**  
EPFL, CE 1  
Abstracts 270–279  
Chair: Nathaniel S. Finney

15.00–15.15  **Sergio Grunder**, R. Huber, S. Wu, C. Schönenberger, M. Calame, M. Mayor  
University of Basel, CH-4056 Basel  
‘New functional molecules for molecular electronics’  
Abstract 270

15.15–15.30  **Derik K. Frantz**, K. K. Baldridge, J. S. Siegel  
University of Zurich, CH-8057 Zürich  
‘Molecular gears in parallel’  
Abstract 271

University of Zurich, CH-8057 Zürich  
‘Molecular rod rotors and their solid state internal dynamics’  
Abstract 272

15.45–16.00  **Viviana S. Fluxà**, J.-L. Reymond  
University of Bern, CH-3012 Bern  
‘Discovery of new antimicrobial cyclic peptides in a self-encoded 15’625 member combinatorial library’  
Abstract 274
16.15–16.30 Joyram Guin, J. Lacour  
University of Geneva, CH-1211 Genève 4  
‘Cationic helicenes in asymmetric synthesis and catalysis’  
Abstract 275

University of Geneva, CH-1211 Genève 4  
‘Ordered and oriented supramolecular surface architectures for soft photovoltaics’  
Abstract 276

16.45–17.00 Dean Markovic, A. Varela-Álvare, J. A. Sordo, P. Vogel  
‘Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘The endergonic ene-reaction of alkenes and SO2 can now be prepared by γ-unsaturated sulfones and sulfonamides’  
Abstract 277

‘University of Warwick, Coventry, UK  
‘University of Cambridge, Cambridge, UK  
‘Synthetic neuroscience – Towards the chemical modification of a ligand-gated ion channel receptor’  
Abstract 278

17.15–17.30 Julien Chapelat, A. Chougné, U. Hengartner, W.-D. Woggon  
‘University of Basel, CH-4056 Basel  
‘Diastereoselective synthesis of nor α-tocopherol’  
Abstract 279

17.30–17.45 Coffee Break

17.45–18.00 Presentation of the Awards for Best Oral and Poster Presentations

Physical Chemistry

11.30–13.00 Lectures  
EPFL, CE 4  
Abstracts 374–379  
Chair: Rainer Beck

‘Photochemical Dynamics Group, Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Laboratory of Photonics and Interfaces, Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Sun Yat-Sen University, Guangdong, 510275 China  
‘Tetrahertz time-domain spectroscopy study of the conductivity of hole-transporting materials’  
Abstract 374

11.45–12.00 Cecilia Mondelli, A. Vargas, G. Santarossa, A. Baiker  
ETH Zürich, CH-8093 Zürich  
‘Chiral modification of platinum using peptides: Asymmetric induction in hydrogenation reactions’  
Abstract 375

12.00–12.15 P. Chen, J. H. Yum, F. De Angelis, E. Mosconi, S. Fantacci, S.-J. Moon, R. Humphry Baker, J. Ko, Md. Khaja Nazaruddin, M. Grätzel  
‘Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Université di Perugia, I-06123, Perugia, Italy  
‘Korea University, Chungnam 339-700, Korea  
‘High open-circuit voltage solid-state dye-sensitized solar cells with organic dye’  
Abstract 376

12.15–12.30 Piotr Fita, A. Punzi, M. Fedoseeva, E. Vauhtey  
University of Geneva, CH-1211 Genève 4  
‘Local viscosity of binary water+glycerol mixtures at liquid/liquid interfaces studied by time-resolved second harmonic generation’  
Abstract 377

12.30–12.45 Régis Bissón, M. Succhi, R. D. Beck  
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘State-resolved reactivity of CH(2ν) (2ν + ν) and CH(4ν + ν) on Pt(110)-1x2: Maximizing the projection on reaction coordinates from transition state structure’  
Abstract 378

‘Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne  
‘Swiss Light Source, Paul Scherrer Institute, CH-5232 Villigen  
‘Instituto de Óptica “Daza de Valdés”, CSIC, 28006 Madrid, Spain  
‘Solvation dynamics study on aqueous iodide using picosecond and femtosecond hard X-ray absorption spectroscopy’  
Abstract 379

13.00–13.15 Poster talks  
EPFL, CE 4  
Abstracts 389–393

Evalyn M. C. Alayon, Abstract 389
Jun-Ho Yum, Abstract 390
Niels van Vegten, Abstract 391
Vincent Liegeois, Abstract 392
Julien Réhault, Abstract 393
13.15–14.15 Poster Session
EPFL, CE 101
Abstracts 394–450

14.15–15.00 General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.00–17.15 Lectures
EPFL, CE 4
Abstracts 380–388
Chair: Frédéric Merkt

15.00–15.15 Simone Ulzega\(^a\), M. Verde\(^a\), F. Ferrage\(^b\), G. Bodenhausen\(^ab\)
\(^a\)Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
\(^b\)Ecole Normale Supérieure, 75231 Paris Cedex 05, France
‘New methods in nuclear magnetic resonance: Application of relaxation phenomena to the study of local dynamics in biomolecules’
Abstract 380

15.15–15.30 Renske M. van der Veen\(^ab\), C. J. Milne\(^a\), A. El Nahhas\(^a\), F. A. Lima\(^a\), V.-T. Pham\(^a\), J. Best\(^c\), J. A. Weinstein\(^c\), C. N. Borca\(^b\), R. Abela\(^b\), C. Bressler\(^a\)
\(^a\)Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
\(^b\)Swiss Light Source, Paul Scherrer Institute, CH-5232 Villigen
\(^c\)The University of Sheffield, UK
‘Retreiving photochemically active structures by ultrafast optical and X-ray spectroscopies’
Abstract 381

15.30–15.45 Marco Schade\(^a\), A. Moretto\(^a\), M. Crisma\(^a\), C. Toniolo\(^a\), P. Hamm\(^a\)
\(^a\)University of Zurich, CH-8057 Zürich
\(^b\)University of Padova, 35131 Padova, Italy
‘Energy transport in peptide helices after IR excitation of Leucine D-10’
Abstract 382

15.45–16.00 Karen Keppler Albert\(^a\), S. Albert\(^a\), M. Quack\(^a\), J. Stohner\(^b\)
\(^a\)ETH Zürich, CH-8093 Zürich
\(^b\)Zurich University of Applied Sciences, CH-8820 Wädenswil
‘High resolution infrared spectroscopy of oxirane carbonitrile’
Abstract 383

16.00–16.15 Georgios Fradelos\(^a\), J. Kaminski\(^a\), T. A. Wesolowski\(^b\), S. Leutwyler\(^b\)
\(^a\)University of Geneva, CH-1211 Genève 4
\(^b\)University of Bern, CH-3012 Bern
‘The cooperative effect of the hydrogen-bonded chains in the environment of a $\pi \rightarrow \pi^*$ chromophore’
Abstract 384

16.15–16.30 Jinjun Liu\(^a\), E. J. Salumbides\(^a\), U. Hollenstein\(^a\), J. C. J. Koelemeij\(^a\), K. S. E. Eikema\(^a\), W. Ubachs\(^a\), F. Merkt\(^a\)
\(^a\)ETH Zürich, CH-8093 Zürich
\(^b\)Laser Centre, Vrije Universiteit, 1081 HV Amsterdam, The Netherlands
‘Determination of the ionization and dissociation energies of the hydrogen molecule’
Abstract 385

16.30–16.45 Jann A. Frey, M. Gasser, J. Hostettler, A. Bach, P. Chen
ETH Zürich, CH-8093 Zürich
‘Vibronic structure of the 3s and 3p Rydberg states of the allyl radical’
Abstract 386

16.45–17.00 Caroline Seabiy, A. Svendsen, M. Guidi, O. V. Boyarkin, T. Rizzo
Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
‘Population transfer spectroscopy of protonated biological molecules in cold ion trap’
Abstract 387

17.00–17.15 Michael Devereux, M. Meunwy
University of Basel, CH-4056 Basel
‘Modeling of vibrational relaxation and the vibrational Stark shift in protein electric fields’
Abstract 388

17.15–17.45 Coffee Break

17.45–18.00 Presentation of the Awards for Best Oral and Poster Presentations

Division of Polymers and Colloids

11.00–11.15 General Assembly of the members of the Division
EPFL, BS 160
Chair: Harm-Anton Klok

11.15–11.45 Invited lecture
EPFL, BS 160
Jean-François Gohy
University of Louvain-la-Neuve, B-1348 Louvain-la-Neuve, Belgium
‘Self-assembly of hydrogen-bonded block copolymer complexes’
Abstract 451

11.45–12.45 Lectures
EPFL, BS 160
Abstracts 453–456
Chair: Harm-Anton Klok

11.45–12.00 Bojana Apostolovic\(^a\), S. Deacon\(^b\), R. Duncan\(^b\), H.-A. Klok\(^a\)
\(^a\)Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne
\(^b\)Center for Polymer Therapeutics, Cardiff, UK
‘Novel self-assembled polymer therapeutics based on coiled coil peptide sequences’
Abstract 453

12.00–12.15 General Assembly of the Division
EPFL, BS 160

12.15–12.45 Invited lecture
EPFL, BS 160
Costanza Lucchi
University of Bologna, 40126 Bologna, Italy
‘Protein-protein association in human health and disease’
Abstract 452

12.45–13.15 Lectures
EPFL, BS 160
Abstracts 457–460
Chair: Harm-Anton Klok

13.15–13.45 Invited lecture
EPFL, BS 160
Markus Antonietti
Max Planck Institute for Polymer Research, D-55128 Mainz, Germany
‘Living systems inspired materials’
Abstract 454

13.45–14.15 Invited lecture
EPFL, BS 160
Sebastien Roux
University of Louvain-la-Neuve, B-1348 Louvain-la-Neuve, Belgium
‘Oligonucleotides as self-assembled nanoarchitectures’
Abstract 455

14.15–14.30 Invited lecture
EPFL, BS 160
Yves Bové
University of Lorraine, CNRS UMR 7516, 54506 Vandoeuvre-lès-Nancy, France
‘Oligonucleotides as self-assembled nanoarchitectures’
Abstract 456

14.30–15.00 Invited lecture
EPFL, BS 160
Grégory Béguin
University of Geneva, CH-1211 Genève 4
‘The self-assembly of nanoscale structures from block copolymers’
Abstract 457

15.00–15.30 Invited lecture
EPFL, BS 160
Jacques Brandenbourg
University of Lausanne, CH-1015 Lausanne
‘Catalysis of 1,3-allylic rearrangements in living systems’
Abstract 458

15.30–15.45 Invited lecture
EPFL, BS 160
Bernard J. Feringa
University of Groningen, 9717 AG Groningen, The Netherlands
‘Self-assembly of functional polymer brushes’
Abstract 459

15.45–16.00 Invited lecture
EPFL, BS 160
Reinhard Wirsching
University of Bern, CH-3012 Bern
‘Self-assembly of functional polymer brushes’
Abstract 459
12.00–12.15  Jin-Mi Jung, R. Mezzenga
University of Fribourg, CH-1700 Fribourg
Nestlé Research Center, CH-1000 Lausanne
‘Mesoscopic properties of amyloid protein fibers in water’
Abstract 454

12.15–12.30  A. Trachsel, Andreas Herrmann
Firmenich SA, CH-1211 Geneva
‘Size is not all: Parameters affecting the release of tertiary alcohols from the surface of dendrimers and stylomers’
Abstract 455

12.30–12.45  Patrick Ilg, H. C. Öttinger, M. Kröger
ETH Zürich, CH-8093 Zürich
‘Systematic coarse-graining the non-equilibrium dynamics of polymer melts’
Abstract 460

12.45–13.15  Poster Session
EPFL, BS 170
Abstracts 463–479

14.15–15.00  General Assembly of the members of the Swiss Chemical Society
EPFL, CE 6

15.00–15.30  Invited lecture
EPFL, BS 160
Joannis K. Kallitsis
University of Patras, Greece
‘Influence of the molecular structure on the properties and fuel cell performance of high temperature polymer electrolyte membranes’
Abstract 452

15.30–16.00  Ilja K. Voets, A. De Keizer
Wageningen University, 6703 HB Wageningen, Netherlands
University of Fribourg, CH-1723 Marly
‘Opposites attract?! Hierarchical co-assemblies of block copolymers in aqueous solution’
Abstract 458

16.00–16.15  Xiaoxuan Liu, P. Rocchē, L. Peng
CINaM CNRS UPR 3118, 13288 Marseille, France
Wuhan University, Wuhan 430072, China
INSERM, U624, 13288 Marseille, France
‘PAMAM dendrimer mediated siRNA delivery to target Hsp27 and induce potent gene silencing and anticancer activity in prostate cancer’
Abstract 459

ETH Zürich, CH-8093 Zürich
‘Dynamics of the self-assembly of polymer-coated ceramic nanoparticles at liquid-liquid interfaces’
Abstract 460

16.30–16.45  Antoni Sánchez-Ferrer, R. Mezzenga
University of Fribourg, CH-Fribourg
‘Liquid-crystalline rod-coil di-, tri- and tetra-bloc copolymers’
Abstract 461

16.45–17.00  Olivier Pravaz, H. Dietsch, P. Schurtenberger
University of Fribourg, CH-1723 Marly
‘Nanocomposites: tuning morphology, concentration and orientation of particles integrated within a polymethylmethacrylate matrix’
Abstract 462

17.00–17.45  Coffee Break

17.45–18.00  Presentation of the Awards for Best Oral and Poster Presentations