

SCS FALL MEETING 2014, POSTER SESSIONS

Name = Presenting Author

Name = Research Leader

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**Analytical Sciences [AS]
Poster Session**

Jury members:

The Design of Selected Reaction Monitoring Method based on Empirical Spectra Library of Synthetic Peptides for Higher Sensitive Measurements [AS-101]Bandar Alghanem, *Gérard Hopfgartner*, University of Geneva**HRMS dereplication, spectral networks and small molecule epigenetic modifiers: tools to decipher cryptic metabolic pathways in fungal microorganisms [AS-102]**Pierre-Marie Allard, *Jean-Luc Wolfender*, University of Geneva**Hyphenation of SPRI and MALDI MS for Interaction Analysis [AS-103]**Ulrike Anders, *Renato Zenobi*, ETH Zurich**MS-based isolation strategy for rapid targeted purification of antifungal compounds at the preparative scale [AS-104]**Antonio Azzollini, *Jean-Luc Wolfender*, University of Geneva**Evaluation of Hadamard Transform Atmospheric Pressure Ion Mobility-ESI-MS for the rapid profiling of isomeric natural products [AS-105]**Antonio Azzollini, *Jean-Luc Wolfender*, University of Geneva**Add-on Secondary Electrospray Ionizer for, delivering high ionization efficiency of vapors for the Analytical sector and for pre-existing API-M. [AS-106]**

Cesar Barrios-Collado, Pablo Martinez-Lozano Sinues, ETH Zurich

Exploring demultiplexing strategies for peptide identification in SWATH spectra: assessment of elution profile similarity [AS-107]Aivett Bilbao, *Gérard Hopfgartner*, University of Geneva**Metabolite screening in plasma based on SWATH data acquisition in UHPLC-MS/MS analysis combined with a high resolution metabolomics library [AS-108]**Tobias Bruderer, *Gérard Hopfgartner*, University of Geneva**Analyzing Durable Anti-fungal Resistance Processes in Cereals by Metabolomics Using UHPLC-HR-MS [AS-109]**Rahel Bucher, *Laurent Bigler*, University of Zurich**Proton homodecoupling with enhanced resolution and sensitivity [AS-110]**

Axelle Cotte, University of Geneva

Confined Thin Layer Cyclic Voltammetry for Halide Detection [AS-111]Maria Cuartero, *Eric Bakker*, University of Geneva**Quantitation of Dystrophin in Quadriceps of Treated mdx Mice by LC-SRM/MS [AS-112]**Chantal Geiser, *Stefan Schürch*, University of Berne**Rapid and sensitive analysis of proteins with CE-SDS-LIF: mass spectrometric characterization of fluorescent labeled proteins [AS-113]**Miriam Goyder, HES-SO Valais, *Franka Kálmán*, University of Applied Sciences and Arts Northwestern Switzerland, FHNW**Quantification of La in CaMnO₃ by ICPMS for Analysis of PLD Films [AS-114]**Kevin Guex, *Detlef Günther*, ETH Zurich**Tandem mass spectrometric elucidation of the higher-order structure of sugar-modified nucleic acid duplexes [AS-115]**Yvonne Hari, *Stefan Schürch*, University of Berne**Method development for analysis of (oxygenised) volatile organic compounds in ambient air [AS-116]**Corinne C. Hoerger, *Stefan Reimann*, EMPA Dübendorf**Unraveling the requirements for immortality – Description of the alternative lengthening of telomeres type I cell phenotype using microarrays for mass spectrometry. [AS-117]**

Alfredo Ibanez, ETH Zurich

Investigation of Primaquine Metabolism and its Effects on the Metabolomic Distribution of Hepatocytes Using a Dedicated LC/MS Platform Including Automated Bligh & Dyer Extraction [AS-118]Sandra Jahn, *Gérard Hopfgartner*, University of Geneva**Pattern-Based Sensing of Aminoglycosides [AS-119]**

Ziya Kostereli, EPFL Lausanne

Probing localized chemical phases in thin film solar cells [AS-120]Wan-Ing Lin, *Renato Zenobi*, ETH Zurich**Scanning Carbonate Samples for Radiocarbon Content with Laser Ablation Coupled to Accelerator Mass Spectrometry [AS-121]**Caroline Münsterer, *Detlef Günther*, ETH Zurich**RASPPberry, an automated sample preparation platform [AS-122]**

Inken Plitzko, F. Hoffmann-La Roche AG

Quantification of bufadienolides in Bryophyllum pinnatum leaves and manufactured products by UHPLC-ESI-MS/MS [AS-123]Olivier Potterat, *Matthias Hamburger*, University of Basel**At-line quantitative monitoring of the production of recombinant his-tagged proteins using fluorescence polarization [AS-124]**Denis Prim, *Jean-Manuel Segura*, University of Applied Sciences Western Switzerland Valais**Optimized strategy for an efficient Normal Phase MS-targeted isolation of natural products [AS-125]**Davide Righi, *Jean-Luc Wolfender*, University of Geneva**Excess Electron Transfer Through Phenanthrenyl Base Pairs Within DNA [AS-126]**Pascal Röthlisberger, *Christian Leumann*, University of Berne**Nucleoside phosphate monitoring in mammalian cell fed-batch cultivation using quantitative matrix-assisted laser desorption/ionization time-of-flight mass spectrometry [AS-127]**Robert Steinhoff, *Renato Zenobi*, ETH Zurich**Zoom feature for a chemical microscope based on tip-enhanced Raman spectroscopy [AS-128]**Jacek Szczerbiński, *Renato Zenobi*, ETH Zurich**¹H HR-MAS NMR based metabolic profiling of cells in response to treatment with a hexacationic Ruthenium complex [AS-129]**

Martina Vermathen, University of Berne

Fluorescent Sol based Optical Ammonia Gas Sensor [AS-130]Susanne Widmer, EMPA St. Gallen, *Lukas J. Scherer*, Radiometer Basel**All Solid State Membrane Electrodes Based on Ferrocene Functionalized PVC [AS-131]**Zdenka Jarolímová, *Eric Bakker*, University of Geneva**Influence of the target plate material and sample layer thickness on LDI ionization efficiency for C60 [AS-132]**Guido Paul Zeegers, *Renato Zenobi*, ETH Zurich**Ion-selective nanospheres as novel reagents in complexometric titrations [AS-133]**Jingying Zhai, *Eric Bakker*, University of Geneva

Application of SWATH acquisition method to the mass spectrometry-based proteomics study of monocyte-derived dendritic cells [AS-134]

Ying Zhang, *Gérard Hopfgartner*, University of Geneva

Instrumentino: An open-source modular Python framework for controlling Arduino based experimental instruments [AS-135]

Joel Koenka, *Peter Hauser*, University of Basel

Evaluation of a high performance ion mobility-MS platform for structural measurements in different drift gases combined with computational strategies [AS-136]

Ruwan T. Kurulugama, *Holger Stalz*, Agilent Technologies

Computational Chemistry [CC] Poster Session

Jury members:

Theoretical conformation analysis of a triazine-based, double decker rotor molecule with three anthracene blades [CC-101]

Maike Bergeler, *Markus Reiher*, ETH Zurich

A Density-Dependent Dispersion Correction: Beyond the post-SCF and ground state density [CC-102]

Eric Brémond, *Clemence Corminboeuf*, EPFL Lausanne

Computational study of the reaction between O(³P) and NO(²H) at temperatures relevant to the Hypersonic Flight Regime [CC-103]

Juan Carlos Castro-Palacio, *Markus Meuwly*, University of Basel

Understanding Supported Metallic Nanoparticles: An Ab Initio Approach [CC-104]

Alexis Comas-Vives, *Christophe Copéret*, ETH Zurich

Theoretical modeling of mesoporosity development in zeolites in alkaline media: Hierarchical ZSM-5 and ZSM-22 [CC-105]

Izabela Czekaj, *Javier Pérez-Ramírez*, ETH Zurich

Inter-system crossing with TDDFT: Jablonski diagrams from theory [CC-106]

Felipe Miraglia Franco de Carvalho, *Ivano Tavernelli*, EPFL Lausanne

Molecular scalar fields: From bonding descriptors to density functionals [CC-107]

Piotr de Silva, *Clemence Corminboeuf*, EPFL Lausanne

Monte Carlo Simulations of Bulk Liquid Water at Ambient Temperature and Pressure: Climbing the Jacob's Ladder of Density Functional Approximations [CC-108]

Mauro Del Ben, University of Zurich

Liquid-liquid equilibrium and thermodynamics modeling of systems containing jatropha oil + methanol + glycerol + biodiesel [CC-109]

Kusumaningtyas Ratna Dewi, Semarang State University

Local density fitting within a Gaussian and plane waves approach [CC-110]

Dorothea Golze, University of Zurich

Ab Initio Modeling of TiO₂-based Photo-catalysis for Water Reduction [CC-111]

Yeliz Guerdal, *Jürg Hutter*, University of Zurich

A new toolkit for fitting forcefield parameters used for Permanent Multipoles molecular simulations [CC-112]

Florent Hédin, *Markus Meuwly*, University of Basel

LF-DFT Calculations of Praseodymium doped binary Fluorides compared with Experimental Results [CC-113]

Benjamin Herden, *Claude A. Daul*, University of Fribourg

Computational Investigations of Potential Water Oxidation Catalysts. [CC-114]

Florian Hodel, *Jürg Hutter*, University of Zurich

Computation of Molecular Parity Violation in View of Spectroscopic Experiments. [CC-115]

Lubos Horny, *Martin Quack*, ETH Zurich

Interactive Visualization of PDB and CSD in 3D-Shape Space [CC-116]

Xian Jin, *Jean-Louis Reymond*, University of Berne

Excited state calculations with MPS-DMRG [CC-117]

Sebastian Keller, *Markus Reiher*, ETH Zurich

Free-radical copolymerization of acrylamides, acrylates and α -olefins [CC-118]

Rollin King, Bethel University

Adaptive Tensor Network Parameterizations of the Electronic Wave Function for Application in Strong-Correlation Problems [CC-119]

Arseny Kovyrshin, *Markus Reiher*, ETH Zurich

Adjusting the Local Arrangement of π -Stacked Oligothiophenes to Promote Charge Transfer [CC-120]

Hongguang Liu, *Clemence Corminboeuf*, EPFL Lausanne

Progress on DMRG-SCF Gradients for State-specific and State-averaged Cases [CC-122]

Yingjin Ma, *Markus Reiher*, ETH Zurich

Mechanism of ethylene polymerization by CrIII silicates via C-H activation: insights from DFT calculations [CC-123]

Francisco Nuñez Zarur, *Christophe Copéret*, ETH Zurich

Noncovalent interactions in isostructural cocrystals and salts : A theoretical investigation [CC-124]

Nirmal Ram Jayaraman Selvaraj, *Tomasz Adam Wesolowski*, University of Geneva

Theoretical account of the electronic structure and properties of systems with two-open-shell f and d electrons [CC-125]

Harry Ramanantoanina, *Claude A. Daul*, University of Fribourg

The Subtle Effect of the Solvent on Competing Reaction Mechanisms Involving λ^3 -iodanes: From the Reaction Profile to the Minimal Energy Pathway on the Free Energy Surface [CC-126]

Oliver Sala, *Antonio Togni*, ETH Zurich

Chemoinformatics Meets Quantum Chemistry: A Strategy for Computational Molecular/Reaction Analysis Based on The Global Reaction Route Maps [CC-127]

Hiroko Satoh, National Institute of Informatics, Tokyo

Non-uniform Continuum Model for Solvatochromism Based on Frozen-Density Embedding Theory [CC-128]

Sapana Shedge, *Tomasz Adam Wesolowski*, University of Geneva

Excess electrons in anatase: a hybrid DFT and RPA study [CC-129]

Clelia Spreafico, ETH Zurich

Exciton coupling in π -stacked chromophores: a challenge for electronic structure approaches [CC-130]

Peter R. Tentscher, *Clémence Corminboeuf*, EPFL Lausanne

Dynamics of retinal chromophore in rhodopsin: from cis-trans isomerisation to activation [CC-131]

Siri Camee Van Keulen, *Ursula Röthlisberger*, EPFL Lausanne

Visualizing and quantifying interactions in the excited states using molecular scalar fields [CC-132]

Laurent Vannay, *Clemence Corminboeuf*, EPFL Lausanne

MD Simulations of Non-linear Hydrogen Transfer with Zero-point Energy Corrected MMPT Force Field [CC-133]

Zhen-Hao Xu, *Markus Meuwly*, University of Basel

Alchemical Coupling Approaches within Quantum Chemistry [CC-134]

K. Y. Samuel Chang, *O. Anatole von Lilienfeld*, University of

Basel

On-the-fly ab initio semiclassical dynamics: Identifying degrees of freedom essential for emission spectra of oligothiophenes [1] [CC-135]

Marius Wehrle, EPFL Lausanne

Accelerating Quantum Instanton Calculations of Kinetic Isotope Effects [CC-136]

Konstantin Karandashev, EPFL Lausanne

Catalysis Sciences & Engineering [CE] Poster Session

Jury members: Cecilia Mondelli, Marco Ranocchiari

Efficient biphasic processing of sugars to furans over GaUSY/Amberlyst-36 in continuous mode [CE-101]

Christof Aellig, *Javier Pérez-Ramírez*, ETH Zurich

Alkane Hydroxylation Using an Artificial Metalloenzyme Based on the Biotin-Streptavidin Technology [CE-102]

Maxime Barnet, *Thomas R. Ward*, University of Basel

Pretreatment effect on supported Au₂(SR)₂ clusters [CE-103]

Noelia Barrabes, *Thomas Bürgi*, University of Geneva

Fe₂O₃-TiO₂ Nanostructured Composite Photoanode for Water Splitting [CE-104]

Mario Bärtsch, *Markus Niederberger*, ETH Zurich

Activated Carbon Fibers as Efficient Structured Adsorbent for VOCs Removal [CE-105]

Guillaume Baur, *Liubov Kiwi*, EPFL Lausanne

Secondary reactions during the decomposition of formic acid [CE-106]

Amaia Belouqui Redondo, *ETH Zurich, Jeroen A. van Bokhoven, ETH Zurich and Paul Scherrer Institute, Villigen*

Towards Ocean Based Biorefinery: N-Acetyl-D-Glucosamine (NAG) to Value-Added Polyols. [CE-107]

Felix D. Bobbink, *Paul Dyson*, EPFL Lausanne

Controlling the active phase distribution in shaped catalysts [CE-108]

Lars Borchardt, *Javier Pérez-Ramírez*, ETH Zurich

Membrane reactor concept for CO₂ methanation [CE-109]

Andreas Borgschulte, *EMPA Dübendorf*

Activation of Cu-mordenite for methane to methanol conversion: Effects of synthesis and multiple cycles on methanol production [CE-110]

Selmi Erim Bozbag, *Jeroen A. van Bokhoven, ETH Zurich and Paul Scherrer Institute, Villigen*

Protecting nano-particles against sintering for application under demanding catalytic conditions [CE-111]

Andrew Chang-Yin Chien, *Paul Scherrer Institute, Villigen, Jeroen Anton van Bokhoven, ETH Zurich and Paul Scherrer Institute, Villigen*

The Mechanism of (catalytic) Lignin Pyrolysis: Linking Model Compounds to Lignin [CE-112]

Victoria Custodis, *Jeroen A. van Bokhoven, ETH Zurich*

Esterification of Lignin Monomers and Fatty Acids using Separable Solid Acids [CE-113]

Bahir Duraki, *Jeroen A. van Bokhoven, ETH Zurich*

Increased methanation activity of ruthenium nanoparticles through passivation of the silica support [CE-114]

Karol Furman, *Christophe Copéret, ETH Zurich*

Identifying short-lived phases and their rates of formation and disappearance from transient XAS spectroscopy [CE-115]

Urs Hartfelder, *Jeroen A. van Bokhoven, ETH Zurich*

Studying the structure-directing effect of aromatic-functionalized templates in zeolite synthesis [CE-116]

Manuel Hernandez-Rodriguez, *Javier Pérez-Ramírez, ETH Zurich*

Controlled growth and interfaces of supported iridium nanoparticles via surface organometallic chemistry [CE-117]

Florent Héroguel, *Christophe Copéret, ETH Zurich*

Microwave-assisted nonaqueous synthesis of WO₃ nanoparticles for crystallographically oriented photoanodes for water splitting [1] [CE-118]

Sandra Hilaire, *Markus Niederberger, ETH Zurich*

Organometallic Chemistry with Metal-Organic Frameworks: Well-Defined Heterogeneous Catalytic Sites for Olefin Metathesis [CE-119]

Rifat Kamarudheen, *Paul Scherrer Institute, Villigen, Jeroen A. van Bokhoven, ETH Zurich and Paul Scherrer Institute, Villigen*

Structure modification and carbon resistance improvement of modified Ni/Al₂O₃ catalysts for synthetic natural gas production [CE-120]

Anastasios Kampolis, *Paul Scherrer Institute, Villigen, Oliver Kröcher, Paul Scherrer Institute, Villigen and EPFL Lausanne*

Hydrogenation of Arenes by Metal Nanoparticles Combined with Lewis Acidic Ionic Liquids [CE-121]

Alena Karakulina, *Paul Dyson, EPFL Lausanne*

Single particle spectroscopy on well-defined models systems prepared using nanotechnology to study size-effects in catalysis [CE-122]

Waiz Karim, *Jeroen A. van Bokhoven, ETH Zurich and Paul Scherrer Institute, Villigen*

Post-synthetic design of basic zeolites for bio-oil upgrading [CE-123]

Tobias Keller, *Javier Pérez-Ramírez, ETH Zurich*

Oxidative coupling of methane on flame-made Mn-Na₂WO₄/SiO₂: Influence of catalyst composition and reaction conditions [CE-124]

Rajesh Koirala, *Alfons Baiker, ETH Zurich*

Oxidative dehydrogenation of ethane (ODHE) with CO₂ over flame-made Ga-loaded TiO₂ [CE-125]

Rajesh Koirala, *Alfons Baiker, ETH Zurich*

In Situ Resonant X-Ray Emission Spectroscopy of Ce³⁺ Formation During CO Oxidation at Low Temperatures over Platinum Nanoparticles Supported on Ceria. [CE-126]

René Kopelent, *Olga V. Safonova, Paul Scherrer Institute, Villigen*

Gas-phase selective oxidation of glycerol to dihydroxyacetone over iron zeolites [CE-127]

Giacomo Marco Lari, *Javier Pérez-Ramírez, ETH Zurich*

Electrocatalytic reduction of carbon dioxide by thiol-protected silver nanoclusters [CE-128]

Gastón Larrazábal, *Javier Pérez-Ramírez, ETH Zurich*

Rhodium doped ceria: Organics from sunlight, H₂O and CO₂? [CE-129]

Fangjian Lin, *Paul Scherrer Institute, Villigen*

Cobalt-based spinel catalysts for visible-light-driven water oxidation [CE-130]

Hongfei Liu, *Greta Ricarda Patzke, University of Zurich*

DRIFTS-HEROS study of CO oxidation on Pt catalysts [CE-132]

Valentina Marchionni, *Davide Ferri, Paul Scherrer Institute, Villigen*

Operando Monitoring of Surface Processes during Heterogeneous Asymmetric Hydrogenation of Ketones on Chirally-Modified Platinum Catalyst [CE-133]

Fabian Meemken, *Konrad Hungerbühler, ETH Zurich*

Engineering Single-Sites Inside Metal Organic Frameworks in the Search for New Water Oxidation Catalysts [CE-134]

Kim Meyer, *ETH Zurich*, *Jeroen A. van Bokhoven*, *ETH Zurich* and *Paul Scherrer Institute, Villigen*

Scalable Enantioselective Synthesis of Fmoc- β^2 -Serin and -Threonin by Organocatalytic Mannich Reaction [CE-135]

Daniel Meyer, *Roger Marti*, *School of Engineering and Architecture of Fribourg*

WO₃-CeO_x-TiO₂ catalyst prepared by one-step flame spray synthesis for NO_x reduction in the NH₃-SCR [CE-136]

Katarzyna Michalow-Mauke, *Paul Scherrer Institute, Villigen*, *Oliver Kröcher*, *Paul Scherrer Institute, Villigen* and *EPFL Lausanne*

Effects of binders on the lifetime and selectivity of shaped hierarchical zeolites in MTH [CE-137]

Nina-Luisa Michels, *Javier Pérez-Ramírez*, *ETH Zurich*

Technical catalyst design: effective application of additives to enhance thermal conductivity [CE-138]

Nina-Luisa Michels, *Javier Pérez-Ramírez*, *ETH Zurich*

Metal Complexes with N-Heterocyclic Carbenes Bearing Redox Active Groups [CE-139]

Ewa Milopolska, *Basel*, *Thomas R. Ward*, *University of Basel*

Coupling of hydrogen and oxygen evolution electrocatalysts to photoelectrodes for the production of solar fuels. [CE-140]

Carlos G. Morales-Guio, *Xile Hu*, *EPFL Lausanne*

Towards heterogeneous asymmetric hydrogenation of olefins using phosphine-substituted metal-organic frameworks [CE-141]

Flavien L. Morel, *ETH Zurich*, *Jeroen A. van Bokhoven*, *ETH Zurich* and *Paul Scherrer Institute, Villigen*

Impact of feed impurities on catalyst design for chlorine recycling [CE-142]

Maximilian Moser, *Javier Pérez-Ramírez*, *ETH Zurich*

A Novel Non-hydrolytic Sol-gel Route to Blue Tungsten Oxide and its Electrochemical Stability [CE-143]

Emma Oakton, *Christophe Copéret*, *ETH Zurich*

Is a good Deacon catalyst a good oxychlorination catalyst? [CE-144]

Vladimir Paunovic, *Javier Pérez-Ramírez*, *ETH Zurich*

Catalytic Performance of Artificial Imine Reductases Based on Designed Variants of hCAII [CE-145]

Michela Pellizzoni, *University of Milan*, *Thomas R. Ward*, *University of Basel*

One-pot polyol synthesis of Pt/CeO₂ and Au/CeO₂ nanopowders as catalysts for CO oxidation [CE-146]

Frank Pilger, *Christian Ludwig*, *EPFL Lausanne*

Towards in situ photoelectron spectroscopy on different formic acid decomposition catalysts [CE-147]

Christian Proff, *Paul Scherrer Institute, Villigen*, *Jeroen A. van Bokhoven*, *ETH Zurich* and *Paul Scherrer Institute, Villigen*

Oxygen Reduction on Pt/SnO₂ Catalysts: a Model Electrode Study [CE-148]

Annett Rabis, *Thomas Schmidt*, *Paul Scherrer Institute, Villigen*

Development of artificial Metalloenzymes for Ring closing Metathesis based on the Biotin-(Strept)avidin Technology [CE-149]

Raphael Reuter, *Thomas R. Ward*, *University of Basel*

Extent-based Model Identification of Surface Catalytic Reaction Systems [CE-150]

Diogo Rodrigues, *Dominique Bonvin*, *EPFL Lausanne*

Reactivity of Active Sites on gamma-Alumina: Towards C-C Bond Formation [CE-151]

Martin Schwarzwälder, *Christophe Copéret*, *ETH Zurich*

Improved Performance of Artificial Metalloenzymes Based on the Biotin-Streptavidin Technology [CE-152]

Fabian Schwizer, *Thomas R. Ward*, *University of Basel*

Designer Ionic Liquids for Biomass Valorization [CE-153]

Sviatlana Siankevich, *Paul Dyson*, *EPFL Lausanne*

Room temperature Au nanoparticle deposition via control of TiO₂ surface chemistry [CE-154]

Georges Siddiqui, *Christophe Copéret*, *ETH Zurich*

Asymmetric transfer hydrogenation of imines: Structural effects within Noyori-Ikariya catalysts [CE-155]

Petr Šot, *Petr Kačer*, *Institute of Chemical Technology, Prague, Czech Republic*

Hydrogen from activated sewage sludge with a stacked microbial electrolysis cell [CE-156]

Marc Sugnaux, *Fabian Fischer*, *HES-SO Valais*

Selective hydrogenation of aromatic amino acids in aqueous solution catalyzed by nanoRu@hectorite [CE-157]

Bing Sun, *Georg Süss-Fink*, *University of Neuchatel*

Selective CO Methanation over Ru-Ni/TiO₂: Effect of Ru and Ni Loading Amount [CE-158]

Shohei Tada, *Ryuji Kikuchi*, *The University of Tokyo*

Tuning electrocatalytic activity of Pt for oxygen reduction by structure modification [CE-159]

Sandra Temmel, *Paul Scherrer Institute, Villigen* and *ETH Zurich*, *Thomas Schmidt*, *Paul Scherrer Institute, Villigen*

DNP NMR Spectral Signatures of the Active Sites in Sn-Beta Zeolite and Reaction with Probe Molecules [CE-160]

Maxence Valla, *Christophe Copéret*, *ETH Zurich*

Mesoporous mixed oxides of cerium and zirconium modified with Au and Cu – synthesis, characterization and performance in glycerol oxidation [CE-161]

Jeroen A. van Bokhoven, *ETH Zurich* and *Paul Scherrer Institute, Villigen*

Chemoselective hydrogenation of functionalized nitroarenes over ligand-modified platinum nanoparticles [CE-162]

Gianvito Vilé, *Javier Pérez-Ramírez*, *ETH Zurich*

Selective hydrogenation of alkynes over CeO₂-based catalysts [CE-163]

Gianvito Vilé, *Javier Pérez-Ramírez*, *ETH Zurich*

Highly periodic catalyst nanostructures for the production of sustainable energy [CE-164]

Roche Marcel Walliser, *Edwin C. Constable*, *University of Basel*

Tuning Regioisomer Reactivity in Catalysis using Bifunctional Metal-Organic Frameworks with Mixed Linkers [CE-165]

Xiaoying Xu, *ETH Zurich*, *Jeroen A. van Bokhoven*, *ETH Zurich* and *Paul Scherrer Institute, Villigen*

Gold thiolated clusters Au₃₈(SR)₂₄ in oxidation reactions [CE-166]

Bei Zhang, *Noelia Barrabes*, *University of Geneva*

The structure of intermediates of cobaloxime H₂ evolving photocatalyst refined by X-ray absorption spectroscopy with sub-microsecond time resolution [CE-167]

Grigory Smolentsev, *Paul Scherrer Institute, Villigen*, *Jeroen A. van Bokhoven*, *ETH Zurich*

Carbon-supported Ru as a Catalyst for Supercritical Water Gasification of Isopropanol for Methane Production [CE-168]

Gaël Peng, *Paul Scherrer Institute, Villigen*, *Frédéric Vogel*, *University of Applied Sciences and Arts Northwestern Switzerland, FHNW*

Inorganic Chemistry [IC] Poster Session

Jury members: Samuel Leutwyler, Sieghard Albert

Binding isotherms for modelling Lanthanide multiple complexation to polymeric scaffolds [IC-101]

Lucille Babel, *Claude Piguet*, University of Geneva

Solvation effects and their consequences on ligand-metal binding events. [IC-102]

Karine Baudet, *Claude Piguet*, University of Geneva

From Welding to Cross-Coupling: How Iron Forms Bonds— the Story of a Mechanism. [IC-103]

Gerald Bauer, *Xile Hu*, EPFL Lausanne

Modifications of Vitamin B12 as a Drug Delivery System for CORMs [IC-104]

Ruben Beltrami, *Fabio Zobi*, University of Fribourg

Synthesis of Water Stable $\{M^{(V)}O_2\}^+-N$ -Heterocyclic Carbene Complexes ($M = Re, ^{99}Tc$) [IC-105]

Michael Benz, *Roger Alberto*, University of Zurich

Synthesis of C_2 -Symmetric N_2P_2 Macrocycles and their Fe(II) Complexes [IC-106]

Raphael Bigler, *Antonio Mezzetti*, ETH Zurich

Macrocyclic Iron(II) Complexes in Asymmetric Transfer Hydrogenation [IC-107]

Raphael Bigler, *Antonio Mezzetti*, ETH Zurich

d^6 -Metal Complexes with Bifunctional Catechol-like Bipyridine Ligands [IC-108]

Laura A. Büldt, *Oliver S. Wenger*, University of Basel

Cyclometallated Ir(III) based Light-emitting Electrochemical Cells - A new Technology for Lighting Applications [IC-109]

Andreas Bünzli, *Catherine E. Housecroft*, University of Basel

Tin based P-type direct band-gap semiconductor material for application in solid-state dye-sensitized solar cells [IC-110]

Annika Büttner, *Catherine E. Housecroft*, University of Basel

Chromium-Lanthanide complexes: a fascinating class of compounds. Crystal structures and magnetic property investigations [IC-111]

Pierre-Emmanuel Car, *Greta Ricarda Patzke*, University of Zurich

Transition metal substituted polyoxometalates: crystal growth engineering and photocatalytic applications [IC-112]

Pierre-Emmanuel Car, University of Zurich

Synthesis, characterization and biological activity of novel ruthenium-thiazolylhydrazones complexes [IC-113]

Thomas Cheminel, University of Neuchatel

Novel Trifluoromethylated P-Stereogenic Oxazoline Ligands [IC-114]

Rima Drissi, *Antonio Togni*, ETH Zurich

Asymmetric Imine Aziridination with Ru/PNNP Catalysts [IC-115]

Joël Egloff, *Antonio Mezzetti*, ETH Zurich

Fluorine-Free Blue and Green Emitting Iridium(III) Complexes for Light Emitting Electrochemical Cells [IC-116]

Cathrin Ertl, *Edwin C. Constable*, University of Basel

Dissolution of nano-size ZSM-5 crystals in alkaline solution: Identification of structural differences between crystals [IC-117]

Daniel Fodor, *Jeroen A. van Bokhoven*, ETH Zurich

New Phenanthroline Copper Dyes and their Application in Dye Sensitized Solar Cells [IC-118]

Sebastian Fürer, *Catherine E. Housecroft*, University of Basel

Synthesis, characterization and cytotoxicity of (η^6 -p cymene) ruthenium(II) complexes of α -amino acids [IC-119]

Julien Furrer, University of Berne

Reducing Aggregation of Silicon Nanoparticles by Shell Designing. [IC-120]

Almudena Gallego, *Marcel Mayor*, University of Basel

Arene ruthenium metalla-assemblies: A mechanistic study [IC-121]

Amine Garci, *Bruno Therrien*, University of Neuchatel

C-H Activation with Iridium(I) on Bipyridine-Containing Periodic Mesoporous Organosilicas [IC-122]

Wolfram R. Grüning, *Christophe Copéret*, ETH Zurich

News on Quasi-One-Dimensional Antiferromagnetic Chain Compounds [IC-123]

Nora Hänni, *Karl Krämer*, University of Berne

Synthesis and reactivity of bis-IBioxMe₄ iridium complexes [IC-124]

Simone Hauser, *Adrian Chaplin*, University of Warwick

Novel Straightforward Synthesis of Biologically Relevant Metallocene Derivatives [IC-125]

Jeannine Hess, *Gilles Gasser*, University of Zurich

P-Stereogenic Open-Chain NPPN Fe(II) Catalysts for the Strecker Reaction of Azomethine Imines [IC-126]

Raffael Huber, *Antonio Mezzetti*, ETH Zurich

Towards Radionuclide Therapy with Doxorubicin Conjugated Tc-99m Compounds [IC-127]

Sebastian Imstef, *Roger Alberto*, University of Zurich

Ceria- and Perovskite- Based Materials for Solar Thermochemical Two-Step CO₂-Splitting [IC-128]

Roger Jacot, *Greta R. Patzke*, University of Zurich

Coordination of metal ions by the two cysteine-rich domains of the plant metallothionein-3 from *Musa acuminata* (banana) [IC-129]

Jovana Jakovleska, *Eva Freisinger*, University of Zurich

Heteroleptic light-emitting copper(I) complexes with possible applications in LECs and OLEDs [IC-130]

Sarah Keller, *Catherine E. Housecroft*, University of Basel

Coordination polymer or discrete complex? – The change of assembly in ZN(OAc)₂ complexes combined with a series of substituted 4,2':6',4''-terpyridine ligands [IC-131]

Maximilian Klein, *Edwin C. Constable*, University of Basel

Carbonyl Isocyanide Complexes of Rhenium and Manganese: A Redox Struggle towards CORMs [IC-132]

Emmanuel Kottelat, *Fabio Zobi*, University of Fribourg

New dyes for dye sensitized solar cells application [IC-133]

Angelo Lanzilotto, *Catherine E. Housecroft*, University of Basel

Silica nanoparticles doped with well-defined TTF dpdz ligated Yb(III) centers. [IC-134]

Giuseppe Lapadula, *Christophe Copéret*, ETH Zurich

The Effect of Other Elements Along with Phosphorus on the Flame Retardance of Cellulose-based Cotton Textiles [IC-135]

Jia En Low, *Joëlle Levalois-Grützacher*, ETH Zurich

Bi-functionalized ionic liquids as active reaction media [IC-136]

Valentin Manzanarez, *Paul Dyson*, EPFL Lausanne

Anionic Bipyridyl Ligands for Applications in Metallasupramolecular Chemistry [IC-137]

Mathieu Marmier, *Kay Severin*, EPFL Lausanne

Facile Synthesis of $[M(\text{arene})_2]^+$ complexes ($M = Re, ^{99(m)}Tc$) [IC-138]

Giuseppe Meola, *Roger Alberto*, University of Zurich

Formic acid dehydrogenation catalyzed by non-precious metal based catalysts. [IC-139]

Mickael Montandon, *Gábor Laurenczy*, EPFL Lausanne

Direct Carbon Dioxide Hydrogenation in the Hydrogen Storage under the Formic Acid/Carbon Dioxide Cycle [IC-140]S  verine Moret, *Paul Dyson*, EPFL Lausanne**Anionic Ir(III) Complexes for Light-Emitting Electrochemical Cells [IC-141]**Collin Morris, *Catherine E. Housecroft*, University of Basel**Coordinating anchoring ligands for surface functionalisation [IC-142]**Steffen M  ller, *Edwin C. Constable*, University of Basel**Molybdenum/Tungsten-Oxide Nanomaterials for Gas Sensing [IC-143]**Michael Olah, *Greta Ricarda Patzke*, University of Zurich**Light-Induced Long-Range Electron Transfer Coupled to Two Proton Transfers [IC-144]**Andrea Pannwitz, *Oliver S. Wenger*, University of Basel**How do hexaruthenium assemblies interact with proteins? [IC-145]**Lydia Paul, *Julien Furrer*, University of Berne**The Impact of Structure and Bonding on The Reactivity of λ_3 -Iodanes: Theoretical Study of Competing Reactions Mechanisms [IC-146]**Halua Pinto de Magalh  es, *Antonio Togni*, ETH Zurich**Cyclodextrin, a Host to Welcome Organic Chlorinated Pesticide(s) [IC-147]**Vijay Kumar Rana, *Jo  lle Levalois-Gr  tzmacher*, ETH Zurich**Metal ions and the mammalian CPEB3 ribozyme – a complicated relationship [IC-148]**Magdalena Rowi  nska-  zyrek, *Roland K. O. Sigel*, University of Zurich**Ir(III)/Quantum Dots diads: en route to semiconductor-based photochemical water oxidation [IC-149]**

Albert Ruggi, University of Fribourg

Fluorescent Labels for Single Molecule Studies of RNA Structure and Folding [IC-150]Anita G. Schmitz, *Roland K.O. Sigel*, University of Zurich**Chiral Ferrocenyl-Substituted N-Heterocyclic Carbenes in Asymmetric Catalysis [IC-151]**Lukas Sigrist, *Antonio Togni*, ETH Zurich**Accessing Modified Properties and Functions of Vitamin B₁₂ through Backbone Alterations [IC-152]**Marjorie Sonnay, *Felix Zelder*, University of Zurich**Hydrogen storage in formate-bicarbonate systems using new water-soluble ligands. [IC-153]**Katerina Sordakis, *G  bor Laurenczy*, EPFL Lausanne**Monothiolato-Bridged Dinuclear Arene Ruthenium Complexes: The Missing Link in the Reaction of Arene Ruthenium Dichloride Dimers with Thiols [IC-154]**David Stibal, *Georg S  ss-Fink*, University of Neuch  tel**Biologically Relevant or an Artifact? The Copper Binding Site in Wheat Metallothionein [IC-156]**

Katsiaryna Tarasava, University of Zurich

Gas Phase Investigations on the β -Hydride Elimination Step in a Pd(II)-based System for the Polymerization of Polar Olefins [IC-157]Augustin Armand Tchawou Wandji, *Peter Chen*, ETH Zurich**Layered ionic liquid-crystalline organisations built from nanocapsules [Mo₁₃₂O₃₁₂S₆₀(SO₄)_x(H₂O)_{132-2x}]^{(12+2x)-} and DODA⁺ cations [IC-158]**

Emmanuel Terazzi, University of Geneva

Aqueous Synthesis of Multi-Functional Cyclopentadienyl Complexes: [(η^5 -Cp{COOR})₂M(CO)₃] (M = Re, ^{99m}Tc) for Potential Theranostic Applications. [IC-159]Samer Ursillo, *Roger Alberto*, University of Zurich**Towards a better understanding of the gold-sulfur interface by spectroscopic investigation on monolayer protected gold-nanoclusters [IC-160]**Birte Varnholt, *Thomas B  rgi*, University of Geneva**Polyoxometalates: Structural diversities and efficient catalysts for artificial photosynthesis [IC-161]**Kim von Allmen, *Greta Ricarda Patzke*, University of Zurich**Flexible Co₃O₄/rGO Composite Aerogel as High-Performance Anode for Lithium-ion Batteries [IC-162]**Guobo Zeng, *Markus Niederberger*, ETH Zurich**Direct labeling of thebtuB riboswitch for singlemolecule FRET studies [IC-163]**Meng Zhao, *Roland K.O. Sigel*, University of Zurich**Medicinal Chemistry & Chemical Biology [MC] Poster Session**

Jury members: Jean-Louis Reymond, Heinz Fretz, Werner Neidhart, Wolfgang Jahnke

Unravelling the RNA binding of Rhenium(I)-dppz complexes [MC-101]Elena Alberti, *Daniela Donghi*, University of Zurich**Labeling the bacterial outer membrane transporter LptD using an antimicrobial peptide by chemical cross-linking. [MC-102]**Gloria Andolina, *John A. Robinson*, University of Zurich**Two-Photon Uncaging as a More Versatile Alternative to Photodynamic Therapy [MC-103]**Philipp Anstaett, *Gilles Gasser*, University of Zurich**A Multi-fingerprint Polypharmacology browser for ChEMBL [MC-104]**Mahendra Awale, *Jean-Louis Reymond*, University of Berne**Guineensine as a Novel Inhibitor of Endocannabinoid Reuptake [MC-105]**Ruben Bartholom  us, *Karl-Heinz Altmann*, ETH Zurich**Synthesis and SAR of New des-THP Analogs of (-)-Dactylolide and (-)-Zampanolide [MC-106]**Tobias Br  tsch, *Karl-Heinz Altmann*, ETH Zurich**Miniaturized Assays for Point-Of-Care Therapeutic Drug Monitoring [MC-107]**Elena-Diana Burghilea, University of Applied Sciences Western Switzerland, *Jean-Manuel Segura*, HES-SO Valais**Cell membrane association of the 295-311 fragment of the estrogen receptor α [MC-108]**Cillian Byrne, *Yves Jacquot*, Universit   Pierre et Marie Curie, Paris**Synthesis of Diphosphoinositol Polyphosphates [MC-109]**Samanta Capolicchio, *Henning Jessen*, University of Zurich**Structural patterns associated with the recruitment of holocalmodulin by ER α [MC-110]**Ludovic Carlier, *Yves Jacquot*, Universit   Pierre et Marie Curie, Paris**Tackling Antibiotic Resistance by Transcription Repressor Inhibitory Compounds [MC-111]**Mathieu Chellat, *Rainer Riedl*, Zurich University of Applied Sciences, ZHAW**Chitosan thiomers for antimicrobial applications [MC-112]**Matteo Croce, *Greta Ricarda Patzke*, University of Zurich**Antiprotozoal Compounds from Drypetes gerrardii [MC-113]**Maria De Mieri, *Matthias Hamburger*, University of Basel**Oligoprolines as Scaffolds for Tumor Targeting with Hybrid Bombesin Analogues [MC-114]**Stefanie Dobitz, *Helma Wennemers*, ETH Zurich

Repair of Protein Radicals by Antioxidants [MC-115]Anastasia Domazou, *Willem H. Koppenol*, ETH Zurich**New insights into the folding and NMR structure of the human RNA BCL2 G-quadruplex [MC-116]**Alicia Dominguez-Martin, *Roland K.O. Sigel*, University of Zurich**Dihydropyridomycins as New Antitubercular Agents: Synthesis and SAR Studies [MC-117]**Maryline Dong, *Karl-Heinz Altmann*, ETH Zurich**Enzymatic C-H bond cleavage probed by deuterium kinetic isotope effects [MC-118]**Pascal Engi, *Florian Seebeck*, University of Basel**FimH antagonists as novel approach for the prevention and treatment of Urinary Tract Infections [MC-119]**Deniz Eris, *Beat Ernst*, University of Basel**Impact of Sulforaphane on Cytotoxicity of PR-104A in Human Colon Cells [MC-120]**Melanie Erzinger, *Shana Sturla*, ETH Zurich**HPLC activity based profiling of *Swartzia simplex* and targeted MPLC isolation of its antifungal diterpenes [MC-121]**Quentin Favre-Godal, *Jean-Luc Wolfender*, University of Geneva**Catalytic carbene transfer allows the direct customization of cyclic dinucleotides [MC-122]**Na Fei, *Dennis Gillingham*, University of Basel**Antifungal and acetylcholinesterase inhibitors from *Croton heliotropiifolius* [MC-123]**Marcos Ferreira Queiroz, *Jean-Luc Wolfender*, University of Geneva**Investigating C(6')-butylamide tricyclo-DNA as a means for endosomal escape [MC-124]**Klavdja Annabel Fignolé, *Christian Leumann*, University of Berne**Close to near physiological conditions – A study under crowded conditions of group II intron ribozyme folding [MC-125]**Erica Fiorini, *Roland K.O. Sigel*, University of Zurich**Strategic targeting of multiple water-mediated interactions in the design of potent and selective MMP-inhibitors [MC-126]**Thomas Fischer, *Rainer Riedl*, Zurich University of Applied Sciences, ZHAW**Functionalized Proline-Rich Peptides as Selective Binders of c-diGMP [MC-127]**Carlotta Foletti, *Helma Wennemers*, ETH Zurich**Engineering an artificial carboxysome using capsid forming lumazine synthase [MC-128]**Raphael Frey, *Donald Hilvert*, ETH Zurich**Structural determination of the core region of the group II intron Sc.ai5γ and the role of the divalent metal ions in folding and structure [MC-129]**Serranda Gashi, *Roland K.O. Sigel*, University of Zurich**Single-molecule studies on a biologically relevant RNA G-quadruplex [MC-130]**Helena Guiset Miserachs, *Roland K.O. Sigel*, University of Zurich**Following inter- and intramolecular dynamics of single encapsulated RNA molecules by FRET spectroscopy [MC-131]**Mélodie Hadzic, *Roland K.O. Sigel*, University of Zurich**Synergistic folding and potency increase in an antimicrobial peptide pair against *Pseudomonas aeruginosa* [MC-132]**Runze He, *Jean-Louis Reymond*, University of Berne**Novel fluorescent agonists for the A₁ adenosine receptor [MC-133]**Jennifer Hemmings, *Martin Lochner*, University of Berne**Evaluation of Scoring Functions for QSAR within the S1' Selectivity Loop of MMP-13 [MC-134]**Stefan Höck, *Rainer Riedl*, Zurich University of Applied Sciences, ZHAW**Towards Phosphoanhydrides via P^{III} chemistry [MC-135]**Alexandre Hofer, *Henning Jessen*, University of Zurich**How ITC, Mutagenesis, and pKa Calculations Trace the Locus of Charge in Ligand Binding to a tRNA-Binding Enzyme [MC-136]**Christoph Hohn, *François Diederich*, ETH Zurich**Modified nucleoside triphosphates: synthetic tools for chemical biology [MC-137]**

Marcel Hollenstein, University of Berne

Synthesis and Pairing Properties of 2'-Fluoro-Tricyclo-DNA [MC-138]Alena Istrate, *Christian Leumann*, University of Berne**Site-selective Chemical Modification of the 5-HT₃ Receptor with Newly Developed Photo-Crosslinking Probes [MC-139]**Thomas Jack, *Martin Lochner*, University of Berne**Stereochemical bias introduced during RNA synthesis modulates the pharmacological properties of phosphorothioate siRNAs [MC-140]**Hartmut Jahns, *Jonathan Hall*, ETH Zurich**The influence of Mg²⁺ ions on single RNA tertiary contact seen at single molecule level [MC-141]**Mokrane Khier, *Roland K.O. Sigel*, University of Zurich**Betaines: the missing link in understanding fungal physiology and metabolism [MC-142]**Sanja Kostić, *Florian Seebeck*, University of Basel**Novel Kinase Inhibitors for PKA and PKB targeting the phosphate-loop [MC-143]**Birgit Lauber, *François Diederich*, ETH Zurich**Synthesis of Inhibitors and Probes for the Cellular Study of Glutamate Transporters [MC-144]**Michele Leuenberger, *Martin Lochner*, University of Berne**Modulation of Y-family DNA polymerase-mediated translesion synthesis by nucleotide analogs detected by a fluorescence-based method [MC-145]**

Stefano Malvezzi, ETH Zurich

Probing DNA Structures and Dynamics with Fluorescent Nucleoside Analogs [MC-146]Guillaume Mata, *Nathan W. Luedtke*, University of Zurich**Sphingoid Base Analogs as Biochemical Tools [MC-147]**Denia Mellal, *Andreas Zumbühl*, University of Fribourg**Discovery of Fucose/Galactose Heteroglycopeptide Dendrimers as Dual Biofilm Inhibitors Targeting *Pseudomonas aeruginosa* Lectins LecA and LecB [MC-148]**Gaëlle Michaud, *Jean-Louis Reymond*, University of Berne**New highlights on the interaction mechanism between coenzyme B₁₂ and the btuB riboswitch [MC-149]**Anastasia Musiari, *Roland K.O. Sigel*, University of Zurich**Chemical Basis for Modulating Human DNA Polymerase η-mediated Bypass and Extension Past the Major Cisplatin-DNA Adduct [MC-150]**Arman Nilforoushan, *Shana Sturla*, ETH Zurich**Thermosome – a cage protein for targeted delivery of macromolecules [MC-151]**Martin Nussbaumer, University of Basel, *Nico Bruns*, University of Fribourg**Site-specific post-synthetic oligonucleotide labeling for single-molecule studies [MC-152]**Igor Oleinich, *Eva Freisinger*, University of Zurich

Functionalization of second harmonic nanoparticles with inhibitors of prolyl-endopeptidases for cancer cells labelling and imaging [MC-153]

Solène Passemard, *Sandrine Gerber*, EPFL Lausanne

Development and Application of Diphosphoinositol Polyphosphate Analogs [MC-154]

Igor Pavlovic, University of Zurich

Identification of a peptide issued from the hinge region of the ER α and inducing apoptosis [MC-155]

Yves Jacquot, Université Pierre et Marie Curie, Paris, *Guy Leclercq*, Université Libre de Bruxelles

Structure-based Design of a New Lead Generation and Inhibition of the Anti-trypanosomal Target Trypanothione Reductase. [MC-156]

Elke Persch, *François Diederich*, ETH Zurich

Efficient in vitro encapsulation of charged molecules by engineered AaLS protein containers [MC-157]

Zbigniew Pianowski, *Donald Hilvert*, ETH Zurich

Discovery of a new class of neuropeptide S receptor antagonists [MC-158]

Julien Pothier, Actelion Pharmaceuticals Ltd, Allschwil

Development of a FRET-based high-throughput screen to identify antagonists of the Lin28/pre-let-7 interaction: a promising new target for cancer. [MC-159]

Ugo Pradere, *Jonathan Hall*, ETH Zurich

A modular LHC built on the DNA three-way junction [MC-160]

Markus Probst, *Robert Häner*, University of Berne

Unusual Dimeric Antitrypanosomal Flavonoids from Arrabidaea brachypoda [MC-161]

Claudia Quitino da Rocha, Universidade Estadual Paulista (UNESP), Brazil, *Jean-Luc Wolfender*, University of Geneva

Synthesis and biological evaluation of methylated tetrabenazine derivatives [MC-162]

Lea Radtke, *Karl-Heinz Altmann*, ETH Zurich

Cell permeability of polycationic oligoprolines [MC-163]

Philipp Raschle, *Helma Wennemers*, ETH Zurich

Target Identification and Optimization of the Novel Notch Inhibitor I3 [MC-164]

Viktoria Reinmüller, *Freddy Radtke*, EPFL Lausanne

MMP-inhibitor development with 3D in vitro cell-based assays [MC-165]

Rainer Riedl, *Rainer Riedl*, Zurich University of Applied Sciences, ZHAW

Identification of sirtrins modulators: new scaffolds and overall strategy [MC-166]

Lucie Ryckewaert, *Pierre-Alain Carrupt*, University of Geneva

HPLC activity based profiling of Conchocarpus fontanesianus and targeted MPLC isolation of its antifungal compounds [MC-167]

Rodrigo Santana cabral, Instituto de Botânica SMA/SP Núcleo de Pesquisa em Fisiologia e Bioquímica, Brazil, *Jean-Luc Wolfender*, University of Geneva

Exploration of Encapsulation Strategies for an Artificial Protein Cage O3-33 [MC-168]

Eita Sasaki, *Donald Hilvert*, ETH Zurich

Carbohydrate-based tRNA-Guanine Transglycosylase Inhibitors [MC-169]

Elisabeth Schäfer, *François Diederich*, ETH Zurich

Synthesis of multifunctional ligands for bioceramic coating; towards functional cell-engineered bone implants. [MC-170]

Vladislav Semak, *Sandrine Gerber*, EPFL Lausanne

Studies on the Chemistry and Biology of Fragin [MC-171]

Simon Sieber, *Karl Gademann*, University of Basel

Switchable Proline Derivatives: Tuning the Conformational Stability of the Collagen Triple Helix by pH Changes [MC-172]

Christiane Siebler, *Helma Wennemers*, ETH Zurich

Fluorescent probes for the cellular study of the 5-HT_{3A} receptor - development of binding assays and in-vivo imaging [MC-173]

Jonathan Simonin, *Martin Lochner*, University of Berne

Drug monitoring and obstructive sleep apnoea diagnosis by in vivo breath analysis [MC-174]

Pablo Martinez-Lozano Sinues, *Renato Zenobi*, ETH Zurich

A New Route Towards Synthetic Collagen Based Materials: Oxime Cross-links To Stabilize Collagen Model Peptides [MC-175]

Linde Smeenk, *Helma Wennemers*, ETH Zurich

Visible-Light-Induced Annihilation of Human Tumor Cells with Platinum-Porphyrin Conjugates [MC-176]

Bernhard Spingler, *Gilles Gasser*, University of Zurich

Influence of RNA structure on RNA-protein binding [MC-177]

Moritz Stoltz, *Jonathan Hall*, ETH Zurich

Lipid self-assembly and its applications [MC-178]

Kaori Sugihara, *Kaori Sugihara*, University of Geneva

Benzimidazole-derived nucleosides in DNA synthesis as probes for O⁶-alkylguanine adducts [MC-179]

Ursina Suter, *Shana Sturla*, ETH Zurich

Chemical biology of Inositol polyphosphates [MC-180]

Divyeshsinh Thakor, *Henning Jacob Jessen*, University of Zurich

Sulfonamide Inhibitors of 2-Methylerythritol 2,4-Cyclodiphosphate Synthase (IspF) from Arabidopsis thaliana and Plasmodium falciparum. [MC-181]

Jonas Thelemann, *François Diederich*, ETH Zurich

Factors influencing the uptake of biotinylated ruthenium complexes for in vivo catalysis in E.coli [MC-182]

Christian Trindler, *Thomas R. Ward*, University of Basel

New structure-activity relationship studies on bombesin-based tracers for tumor targeting [MC-183]

Ibai Valverde, *Thomas L. Mindt*, University of Basel Hospital

Investigation of the structure of LecA and multivalent ligands with crystallography and MD simulation [MC-184]

Ricardo Visini, *Jean-Louis Reymond*, University of Berne

Iron phosphate nanoparticles do not impair membrane integrity or metabolic activity in intestinal cell lines [MC-185]

Lea M von Moos, *Shana Sturla*, ETH Zurich

Metabolomic profiling of bovine cumulus cells and oocytes during in-vitro maturation of cumulus-oocyte complexes [MC-186]

Jasmin Walter, University of Zurich

3-Alkoxy-pyrrolo[1,2-b]pyrazolines as novel selective androgen receptor modulators (SARMs) with unique physicochemical properties for transdermal administration [MC-187]

Sven Weiler, Novartis Institutes for Biomedical Research

Crystal Structure of an Oligoproline PPII-Helix [MC-188]

Patrick Wilhelm, *Helma Wennemers*, ETH Zurich

A synthetic nucleotide analog enables polymerase-mediated amplification of DNA containing promutagenic O⁶-alkylguanine adducts [MC-189]

Laura Wyss, *Shana Sturla*, ETH Zurich

A unifying framework for protein amyloid self-assembly: from protein-protein interactions to large-scale structures [MC-190]

Alessio Zaccane, University of Cambridge, *Marco Lattuada*, University of Fribourg

A new labelling strategy to visualize an RNA splicing process [MC-191]

Susann Zelger-Paulus, *Roland K.O. Sigel*, University of Zurich

Probing Capsid Dynamics with Protein FRET [MC-192]

Reinhard Zschoche, *Donald Hilvert*, ETH Zurich

**Organic Chemistry [OC]
Poster Session**

Jury members:

Synthesis of Cyclopentenones by an Asymmetric Nickel-Catalyzed [3+2] Reductive Cycloaddition of Enoates with Alkynes [OC-101]

Joachim Ahlin, *Nicolai Cramer*, EPFL Lausanne

Mono-, Bis- and Penta-adducts of $M_3N@C_{80}$ (M = Y, Gd): Regioselective Addition Controlled by Endohedral Metal Clusters [OC-102]

Safwan Aroua, ETH Zurich

Synthesis of functionalized pyridinium salts [OC-103]

Johanna Auth, *Andreas Pfaltz*, University of Basel

Synthesis of Porphyrins for Surface Chemistry and Materials Science [OC-104]

Jesse Bergkamp, *Silvio Decurtins*, University of Berne

Towards the total synthesis of Augustamine [OC-105]

Lucile Bernet, *Christian Bochet*, University of Fribourg

Stabilization of Disfavored Conformations inside an Adaptive Self-Assembled Fe_4L_4 Coordination Capsule [OC-106]

Jeanne L. Bolliger, *Jonathan R. Nitschke*, University of Cambridge

Cleavage of Aromatic C—O Bonds using Metal Nanoparticles in Aqueous Media [OC-107]

Safak Bulut, *Paul Dyson*, EPFL Lausanne

Enantioselective Michael Addition of Isocyanoacetate to Vinyl Selenone: Access to α -Quaternary Amino Acids [OC-108]

Thomas Buyck, *Jieping Zhu*, EPFL Lausanne

Broadband Dye-Zeolite L Composites for Luminescent Solar Concentrators [OC-109]

Pengpeng Cao, *Peter Belser*, University of Fribourg

Artificial Suzukiase Based on the Biotin-Streptavidin Technology [OC-110]

Anamitra Chatterjee, *Thomas R. Ward*, University of Basel

Studies Towards the Total Synthesis of (2R)-Hydroxy-Norneomajucin. [OC-111]

Erika Crane, *Karl Gademann*, University of Basel

Metal Free Catalyst for Chemoselective Methylation of Amines Using CO_2 as a Methylating Agent [OC-112]

Shoubhik Das, *Paul Dyson*, EPFL Lausanne

Towards Zwitterionic Charge-Transfer Janus Dendrimers [OC-113]

Cagatay Dengiz, *François Diederich*, ETH Zurich

Towards a photochemically-promoted Native Chemical Ligation (PNCL) [OC-114]

Sebastian Dobarco, *Christian Bochet*, University of Fribourg

Outstanding Chiroptical Properties: A Signature of Enantiomerically Pure Allenic-Acetylenic Macrocycles and Monodisperse Acyclic Oligomers [OC-115]

Etienne Donckele, *François Diederich*, ETH Zurich

Concentration controlled synthesis of Daisy Chains A [c2]daisy chain with the potential application as a molecular potentiometer [OC-116]

Sylvie Drayss, *Marcel Mayor*, University of Basel

Abietane diterpenoids from roots of *Salvia leriifolia* [OC-117]

Samad Ebrahimi, *Matthias Hamburger*, University of Basel

Mono Thiomalonates in the Organocatalyzed Synthesis of 3,4-Dihydrocoumarins and 3,4-Dihydroquinolinones [OC-118]

Oliver Engl, *Helma Wennemers*, ETH Zurich

Photoionizable Porphyrin-Systems in Quantum Interference Experiments [OC-119]

Lukas Felix, *Marcel Mayor*, University of Basel

Electrophilic trifluoromethylation and the formation of quaternary stereogenic centers [OC-120]

Natalja Früh, *Antonio Togni*, ETH Zurich

Metal-Free Aryltrifluoromethylation of Activated Alkenes [OC-121]

Noelia Fuentes, *Cristina Nevado*, University of Zurich

Colorful Ion-Pair- π Interactions [OC-122]

Kaori Fujisawa, *Stefan Matile*, University of Geneva

Chemical synthesis towards a highly symmetric sulfur containing fullerene - shaped molecule [OC-123]

Markus Gantenbein, *Marcel Mayor*, University of Basel

Palladium-catalyzed Sequential Carboxylative Cyclization-Cross-Coupling of Propargylic Amines with Aryl Halides [OC-124]

Patricia García Domínguez, *Cristina Nevado*, University of Zurich

Cellular uptake of substrate-initiated cell-penetrating poly(disulfide)s [OC-125]

Giulio Gasparini, *Stefan Matile*, University of Geneva

Synthesis of Cyano-Substituted Diaryltetracenes from Tetraaryl[3]cumulenes [OC-126]

Przemyslaw Gawel, *François Diederich*, ETH Zurich

Supramolecular helicates with enantiopure allenic-acetylenes [OC-128]

Ori Gidron, *François Diederich*, ETH Zurich

Retention of Absolute Configuration in Hydrogen Atom Transfer/Cyclisation Cascade [OC-129]

Christian Gloor, *Philippe Renaud*, University of Berne

Peptide-Catalyzed Stereoselective Conjugate Addition Reactions of Aldehydes to Maleimides [OC-130]

Claudio Grünenfelder, *Helma Wennemers*, ETH Zurich

Phosphoric Acid-catalyzed Desymmetrization of Bicyclic Bislactones Bearing an All Carbon Quaternary Stereogenic Center: Catalytic Enantioselective Syntheses of (-)-Rhazinilam and (-)-Leucomidine B. [OC-131]

Jean-Baptiste Gualtierotti, *Jieping Zhu*, EPFL Lausanne

Cyclic Carbo-Isosteric Dipeptides and Peptides as a Novel Class of Peptidomimetics and their Potential Biological Applications [OC-132]

Stephanie Gueret, Novartis Pharma AG, *Hans-Jörg Roth*, *Hans-Jörg Roth*

Study of Tris-(2-carboxyethyl)-phosphine oxide [OC-133]

Jihane Haoues, University of Neuchatel

Design, Synthesis and Physical Investigation of Bias-Dependent and Mechanically Driven Single Molecular Spin Switches [OC-134]

Gero Harzmann, *Marcel Mayor*, University of Basel

Synthetic Studies towards Fijiolide A [OC-135]

Christoph Heinz, *Nicolai Cramer*, EPFL Lausanne

Rotational restricted and functionalized CBP derivatives as host materials for phosphorescent organic light-emitting diodes [OC-136]

Manuel Hellstern, *Marcel Mayor*, University of Basel

Mechanistic insights into C-C coupling reactions mediated by Au(I)/Au(III) redox processes [OC-137]

Manuel Hofer, *Cristina Nevado*, University of Zurich

Ferrocene Comprising Macrocyclic – Towards Rotational Restricted Molecular Wires [OC-138]

Viktor Hoffmann, *Marcel Mayor*, University of Basel

Screening of Chiral Phosphine-Based Organocatalysts for the Asymmetric Morita-Baylis-Hillman Reaction by Mass Spectrometric Monitoring of the Back Reaction [OC-139]
Patrick Isenegger, *Andreas Pfaltz*, University of Basel

Stabilization of open-shell graphene fragment triangulene [OC-140]
Michal Juricek, University of Basel

Enantioselective Synthesis of Tröger's Bases via Cu(II)-catalyzed Double Aza-Michael Addition [OC-141]
Takuya Kamiyama, *Jan Cvangros*, ETH Zurich

Towards the Total Synthesis of Fidaxomicin [OC-142]
Elias Kaufmann, *Karl Gademann*, University of Basel

Supramolecular Zippers Dispersing Single-Walled Carbon Nano-Tubes(SWCNTs) [OC-143]
Guojun Ke, *Marcel Mayor*, University of Basel

Synthesis of chiral Ruthenium-cyclopentadienyl complexes and application to hydrative cyclisation of yne-enones [OC-144]
David Kossler, *Nicolai Cramer*, EPFL Lausanne

AFM tip functionalization by in situ click reaction [OC-145]
Rakesh Kumar, *Yoko Yamakoshi*, ETH Zurich

A Simple Method for the Alkylation of N-Heterocycles with Trialkylboranes [OC-146]
Andrey Kuzovlev, *Philippe Renaud*, University of Berne

Modular Synthesis, Orthogonal Functionalization and Properties of Novel Cationic [6]Helicene [OC-147]
Maria Geraldine Labrador Beltran, *Jérôme Lacour*, University of Geneva

Organocatalyzed Direct Vinylogous Double Michael Addition of Unactivated α -Angelica Lactone to Enones [OC-148]
Roman Lagoutte, *Alexandre Alexakis*, University of Geneva

Pushing Corannulene to New Extremes: Synthesis of New, Curved Polycyclic Aromatic Hydrocarbons [OC-149]
Samuel Lampart, *Jay Siegel*, University of Zurich

Triple-Channel Photosystems [OC-150]
Santiago Lascano, *Stefan Matile*, University of Geneva

Novel 1,2,3-Triazolium Ionic Liquids For Dye-Sensitized Solar Cells [OC-151]
Genevieve Lau Pui Shan, EPFL Lausanne

Keep It Simple! Using Asymmetric Monohydrogenation to Access Chiral Building Blocks [OC-152]
Charlotte Laupheimer, *Andreas Pfaltz*, University of Basel

Direct synthesis of a magnetic Palladium-containing ordered mesoporous carbon from a biosourced precursor. Application to Suzuki couplings [OC-153]
Claude Le Drian, *Jean-Michel Becht*, Université de Haute-Alsace, Mulhouse, France

Linear Multidentate Thioether Ligands for the Synthesis of Stable Au NP's with Increased Sizes [OC-154]
Mario Lehmann, *Marcel Mayor*, University of Basel

Oligoproline as Scaffolds for Supramolecular Systems [OC-155]
Bartosz Lewandowski, *Helma Wennemers*, ETH Zurich

Synthesis of Alkynylated Heterocycles via Direct C-H Functionalization or Domino Reactions [OC-156]
Yifan Li, *Jérôme Waser*, EPFL Lausanne

Supramolecular Control over Surface Deposition of Porphyrins [OC-157]
Kenan Li, *Marcel Mayor*, University of Basel

Catalytic Enantioselective Synthesis and Utility of α -Quaternary Lactams [OC-158]
Marc Liniger, *Brian M. Stoltz*, California Institute of Technology

SnAP Reagents for the One-Step Synthesis of Unprotected, Substituted, and Saturated N-Heterocycles from Aldehydes [OC-159]
Michael Umberto Lüscher, *Jeffrey W. Bode*, ETH Zurich

Preparation of chiral functionalized magnetite nanoparticle for catalytic purposes [OC-160]
Olimpia Mamula Steiner, School of Engineering and Architecture of Fribourg

Synthesis of Calix[n]pyrrole[m]furane: A potential new class of macrocyclic ligands [OC-161]
William Maupillier, *Reinhard Neier*, University of Neuchatel

Anion- π Interactions in Organocatalysis [OC-162]
Jadwiga Gajewy, *Stefan Matile*, University of Geneva

Photo/Redox-Switchable Resorcin[4]arene Cavitands [OC-163]
Jovana Milic, *François Diederich*, ETH Zurich

Palladium-Catalyzed Oxy-Alkynylation of Olefins [OC-164]
Ugo Orcel, *Jérôme Waser*, EPFL Lausanne

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Sean Oriana, *Yoko Yamakoshi*, ETH Zurich

Access to β -Lactams by Enantioselective Palladium (0)-Catalyzed C(sp³)-H Alkylation [OC-166]
Julia Pedroni, *Nicolai Cramer*, EPFL Lausanne

Rh^{III}-Catalyzed C-H Activation Rapid Access to Complex Organic Molecules [OC-167]
Van-Manh PHAM, *Nicolai Cramer*, EPFL Lausanne

O-Trifluoromethylation of N,N-Disubstituted Hydroxylamines with Hypervalent Iodine CF₃ Reagents [OC-168]
Ewa Pietrasiak, *Antonio Togni*, ETH Zurich

Synthesis and Applications of Ring-modified Vitamin B12 Derivatives [OC-169]
Lucas Prieto, *Felix Zelder*, University of Zurich

Synthesis of (Carbo)nucleosides Analogues via Formal [3+2] Annulation [OC-170]
Sophie Racine, *Jérôme Waser*, EPFL Lausanne

The Synthesis and Properties of Porphyrin-based Molecular Dyads [OC-171]
Tristan Reekie, *François Diederich*, ETH Zurich

Stabilization of Genuine Non-Kekulé Diradical Triangulene in a Supramolecular Complex [OC-172]
Peter Ribar, University of Basel

A Molecular Dance Ribbon [OC-173]
Michel Rickhaus, *Marcel Mayor*, University of Basel

Design of Novel Lipidic Cubic Phases for Membrane Protein Crystallization [OC-174]
Livia Salvati Manni, *Ehud Landau*, University of Zurich

Understanding the role of ligands and additives in palladium mediated cross-coupling reactions using a combined computational and experimental approach [OC-175]
Italo Sanhueza, ETH Zurich, *Franziska Schoenebeck*, RWTH Aachen

Inhibition of P. falciparum SHMT: Improvement of the pharmacokinetic properties to reach high in vitro activity [OC-176]
Geoffrey Schwartz, *François Diederich*, ETH Zurich

Direct Electrophilic Trifluoromethylation of Quinolones and Pyridones [OC-177]
Remo Senn, *Antonio Togni*, ETH Zurich

Catechol Mediated Carbohydrogenation of Multiple Bonds [OC-178]
Sankar Rao Suravarapu, *Philippe Renaud*, University of Berne

Synthesis of Novel, Molecularly-Defined Pyridine-Based Hybrid Materials [OC-179]
Indre Thiel, *Christophe Copéret*, ETH Zurich

Synthesis and Fluorescence Properties of 5-Amino-4-Carboxamidthiazoles and Their Borate Complexes [OC-180]

Shuo Tong, *Jieping Zhu*, EPFL Lausanne

Fluorescent Amphiphilic Push-Pull Oligothiophenes as Planarizable and Polarizable Membrane Probes [OC-181]

Quentin Verolet, *Stefan Matile*, University of Geneva

Synthesis of functionalized polyether macrocycles [OC-182]

Mahesh Vishe, *Jérôme Lacour*, University of Geneva

Pd(0)-Catalyzed Enantioselective Synthesis of 1,5-Enynes. [OC-183]

Maria Victoria Vita, *Jérôme Waser*, EPFL Lausanne

Hierarchical self-assembly of nucleotide-appended oligopyrenotides into defined supramolecular objects. [OC-184]

Yuliia Vyborna, *Robert Häner*, University of Berne

N-aminoacridinium cations: central building blocks for the synthesis of unprotected aziridines and pH-sensitive dyes synthesis [OC-185]

Antoine Wallabregue, *Jérôme Lacour*, University of Geneva

Towards a Perylene-Based Cyclophane with Charge-Transfer Capability [OC-186]

Kevin Weiland, *Marcel Mayor*, University of Basel

From the Blueprint of Chiral Cp-Ligands to the Landmark in Asymmetric Rh(III)-Catalyzed C-H Functionalization [OC-187]

Baihua Ye, *Nicolai Cramer*, EPFL Lausanne

**Physical Chemistry [PC]
Poster Session**

Jury members:

Ultra-Broadband Multidimensional Electronic Spectroscopy Setup [PC-101]

Andre Al Haddad, *Majed Chergui*, EPFL Lausanne

High resolution THz spectroscopy between 0.8 and 3 THz with a Synchrotron source and a Bruker interferometer. [PC-102]

Sieghard Albert, *ETH Zurich*, *Alexander Wokaun*, *Paul Scherrer Institute, Villigen*

Off-axis deflection and Rydberg-Stark deceleration of a supersonic beam of H₂ molecules on a printed circuit board [PC-103]

Pitt Allmendinger, *Frédéric Merkt*, *ETH Zurich*

Photoelectron spectroscopy of liquid phase benzene derivatives. [PC-104]

Christopher Arrell, *Majed Chergui*, EPFL Lausanne

(Benzene)₂ and (Benzonitrile)₂: Excitonic and Site Effects on the S₁/S₂ Splitting [PC-105]

Franziska Balmer, *Samuel Leutwyler*, University of Berne

Multichannel quantum defect theory (MQDT) assisted spectroscopy of H⁺ through the Rydberg spectrum of H₂. [PC-106]

Maximilian Beyer, *Frédéric Merkt*, *ETH Zurich*

Energytransfer of Eu²⁺ in SrAl₂O₄ codoped with Dy³⁺ [PC-107]

Jakob Bierwagen, *Hans Hagemann*, University of Geneva

Excited State Photophysics of Jet-Cooled 2-Aminopurine and 9-Methyl-2-Aminopurine [PC-108]

Susan Blaser, *Samuel Leutwyler*, University of Berne

High Resolution Analysis of the FTIR spectra and quantum dynamics of CHF₃: The 2ν₄ (A₁/E) Band [PC-109]

Irina Bolotova, *Martin Quack*, *ETH Zurich*

Effect of Ba and K addition and controlled spatial deposition of Rh in Rh/Al₂O₃ catalysts for CO₂ hydrogenation [PC-110]

Robert Büchel, *Alfons Baiker*, *ETH Zurich*

Plasmon tuning of gold nanoparticles array for surface enhanced Raman scattering [PC-111]

Mahshid Chekini, *Thomas Bürgi*, University of Geneva

Solvation Dynamics Around Photo-excited Transition Metal Complexes: A Molecular Dynamics Approach [PC-112]

Akshaya Das, *Markus Meuwly*, University of Basel

Structure of n-Alkanes [PC-113]

Takuya Den, *Samuel Leutwyler*, University of Berne

Ultrafast excited-state dynamics of flavonol anion: no intermolecular proton transfer [PC-114]

Bogdan Dereka, *Eric Vauthey*, University of Geneva

Signal Enhancement & Artifacts Suppression in Vibrational Circular Dichroism Spectroscopy with Femtosecond Lasers [PC-115]

Biplab Dutta, *Jan Helbing*, University of Zurich

Controlled Chemistry using Cold Atomic or Molecular Ions and Ultracold Atoms in Hybrid Traps [PC-116]

Pascal Eberle, *Stefan Willitsch*, University of Basel

Photo-induced fibril formation [PC-117]

Lukas Frey, *Peter Hamm*, University of Zurich

Photoprotection of an oxazine dye by quencher amino acids in model peptides [PC-118]

Alexandre Fürstenberg, University of Geneva

Observation and theory of electric-dipole-forbidden infrared transitions in cold molecular ions [PC-119]

Matthias Germann, *Stefan Willitsch*, University of Basel

Nanoparticle – polyelectrolyte composites investigated by ATR-IR spectroscopy: Enhanced IR absorption and electron transfer upon visible light illumination [PC-120]

Harekrishna Ghosh, University of Geneva

Quantifying a Molecular Orbital's Character using Resonant Photoemission [PC-121]

Jakob Grilj, EPFL Lausanne, *Markus Gühr*, *Stanford University*

First rotational interval of para H₂⁺ by Rydberg spectroscopy of H₂ in the range of 0.3-7 THz [PC-122]

Christa Haase, *Frédéric Merkt*, *ETH Zurich*

High-Resolution Absorption Spectroscopy in the Vacuum-Ultraviolet using Modulation Techniques [PC-123]

U. Hollenstein, *Frédéric Merkt*, *ETH Zurich*

Excited-state dynamics of chiral molecules at the liquid-liquid interface [PC-124]

Cho-Shuen Hsieh, *Eric Vauthey*, University of Geneva

Mass Accommodation Coefficients and Evaporation Rates of H₂O, HCl and HNO₃ on Atmospheric Ices in the Range 170 to 210 K. [PC-125]

Riccardo Iannarelli, *Michel J. Rossi*, *Paul Scherrer Institute, Villigen*

Exciplex Formation in Bimolecular Photoinduced Electron-Transfer Investigated by Ultrafast Time-Resolved Infrared Spectroscopy [PC-126]

Marius Koch, *Eric Vauthey*, University of Geneva

Accurate Structure of n-Nonane by Femtosecond Rotational Raman Spectroscopy [PC-127]

Philipp Kowalewski, *Samuel Leutwyler*, University of Berne

Enhanced two-pulse orientation reveals anisotropy of molecular shape resonance [PC-128]

Peter Kraus, *Hans Jakob Wörner*, *ETH Zurich*

High-harmonic spectroscopy of attosecond charge migration in oriented molecules [PC-129]

Peter Kraus, *Hans Jakob Wörner*, *ETH Zurich*

Sub-70 Femtoseconds Time-resolved Fluorescence Made Easy [PC-130]

Romain Letrun, *Eric Vauthey*, University of Geneva

Nanostructured Metallic Aerogels: High Performance Electrocatalysts for Fuel Cell Reactions [PC-131]
Wei Liu, Technische Universität Dresden, Germany

Pressure induced transformations in molecular crystals [PC-132]
Piero Macchi, University of Berne

Raman Optical Activity (ROA) study on the conformation of (L)- ascorbic acid in aqueous solution [PC-133]
Martin Magg, *Thomas Bürgi*, University of Geneva

A Jet-CRDS Investigation of the $\nu_2+\nu_3$ band of $^{13}\text{CH}_4$ [PC-134]
Carine Manca Tanner, *Martin Quack*, ETH Zurich

Rational design of technical dawsonite-based sorbents for post-combustion CO_2 capture [PC-135]
Oliver Martin, *Javier Pérez-Ramírez*, ETH Zurich

Development of scanning electrochemical microscopy methods for the examination of copper(I) complexes in dye sensitized solar cells. [PC-136]
Colin Martin, *Edwin C. Constable*, University of Basel

Steps towards molecular parity violation: Population transfer experiments and absolute frequencies and quadrupole splittings of the lowest ro-vibrational levels ($J = 1$) of ν_1 , $\nu_3\pm 1$, $2\nu_4$ and $2\nu_4\pm 2$ in NH_3 [PC-138]
Eduard Miloglyadov, *Martin Quack*, ETH Zurich

Cold molecular ions on a chip [PC-139]
Arezo Mokheri, *Stefan Willitsch*, University of Basel

Tryptophan-to-heme electron transfer in ferrous myoglobins [PC-140]
Roberto Monni, *Majed Chergui*, EPFL Lausanne

Excited-state dynamics of an environment-sensitive diketopyrrolopyrrole push-pull probe: major differences between the bulk solution phase and the dodecane/water interface [PC-141]
Sandra Mosquera Vazquez, *Eric Vauthey*, University of Geneva

A table-top high-harmonic-generation-based source for valence/core level photoelectron spectroscopy in liquid samples. [PC-142]
Jose Ojeda, *Majed Chergui*, EPFL Lausanne

Ultrafast spectroscopic investigation of carrier dynamics in Dye sensitized and perovskite based photovoltaics [PC-143]
Arun Aby Paraecattil, *Jacques-E. Moser*, EPFL Lausanne

Absolute cross sections of electronic excitation of furan [PC-144]
Khrystyna Regeta, *Michael Allan*, University of Fribourg

Multibranching Effect of Dipolar Chromophores on (Non)Linear Photophysical Properties and Two-Photon Induced Polymerization [PC-145]
Arnulf Rosspeintner, *Eric Vauthey*, University of Geneva

Observation of dipole-dipole and dipole-quadrupole interactions between pairs of ultracold cesium Rydberg atoms [PC-146]
Heiner Saßmannshausen, *Frédéric Merkt*, ETH Zurich

Two-dimensional Raman-terahertz spectroscopy of water [PC-147]
Janne Savolainen, *Peter Hamm*, University of Zurich

Computational Study of Spectroscopic Properties of Different Borohydride Species [PC-148]
Daniel Sethio, *Hans Hagemann*, University of Geneva

Disorder-Suppressed Vibrational Relaxation in Vapor-Deposited High-Density Amorphous Ice [PC-149]
Andrey Shalit, *Peter Hamm*, University of Zurich

Reversible Isotope Exchange Reactions in $\text{Ca}(\text{BH}_4)_2$ [PC-150]
Manish Sharma, *Hans Hagemann*, University of Geneva

Nanohydration of a Cis-Amide: Water Wires and Bridges [PC-151]
Luca Siffert, *Samuel Leutwyler*, University of Berne

Modelling diffuse scattering of the disordered crystal structure of Na_2SiF_6 [PC-152]
Erik Stronks, University of Zurich

Time-Resolved High-Harmonic Spectroscopy of conical intersection dynamics [PC-153]
Andres Tehlar, *Hans Jakob Wörner*, ETH Zurich

Supersonic Jet UV Spectra and Nonradiative Relaxation of Methylated Cytosines [PC-154]
Maria Trachsel, *Samuel Leutwyler*, University of Berne

The Solvated Carbon-Fluorine Bond in Water Investigated by 2D IR spectroscopy [PC-155]
Halina Tran, *Peter Hamm*, University of Zurich

Alignment effects in the dissociative chemisorption of methane: the role of vibrational symmetry [PC-156]
Maarten van Reijzen, *Rainer Beck*, EPFL Lausanne

A high-flux femtosecond XUV beamline for time-resolved photoelectron spectroscopy. [PC-157]
Aaron von Conta, *Hans Jakob Wörner*, ETH Zurich

Imaging Electronic Wave Packets Through Electron Rescattering and Holography [PC-158]
Samuel Walt, *Hans Jakob Wörner*, ETH Zurich

The β -phase of Pigment Red 170: Faulted stacking of 2D periodic molecular layers. [PC-159]
Rangana Warshamanage, University of Zurich

Studying structure disorder in DL-Norvaline by single crystal diffuse scattering [PC-160]
Jun Xu, University of Zurich

Excited-state dynamics of multichromophoric arrays [PC-161]
Oleksandr Yushchenko, *Eric Vauthey*, University of Geneva

Continuous trap loading of Rydberg atoms and molecules using overlaid electric and magnetic traps [PC-162]
Matija Zesko, *Frédéric Merkt*, ETH Zurich

Placing Nanosheets on Graphene [PC-163]
Zhikun Zheng, *A. Dieter Schlüter*, ETH Zurich

Molecular dynamics simulations of ion pairing in water [PC-164]
Ganna Berezovska, *Albert-Ludwigs University of Freiburg*, *Markus Meuwly*, University of Basel

Polymers, Colloids & Interfaces [PI] Poster Session

Jury members: XXX, YYY

Formation of supramolecular polymers by chrysene oligomers [PI-031]
Caroline Bösch, *Robert Häner*, University of Berne

Microenvironment of the Interior of Dendronized Polymers [PI-032]
Chiara Gstrein, *A. Dieter Schlüter*, ETH Zurich

Poleable nanoparticles as fillers towards non-linear optically active actuators [PI-033]
Yee Song Ko, EPFL Lausanne, *Frank Nüesch*, EMPA *Dübendorf*

Functional Surface Engineering by Insertion of Membrane Protein into Solid-Supported Polymer Membranes [PI-034]
Justyna Kowal, *Wolfgang Meier*, University of Basel

Importance of particulate organic matter in singlet oxygen mediated photochemistry [PI-101]
Elena Appiani, *Kristopher McNeill*, ETH Zurich

Superficial Doping Allows Growth of Silicone Nanostructures on Hydroxyl-free Substrates [PI-102]
Georg Artus, *Stefan Seeger*, University of Zurich

Towards 2D-Polymers: Synthesis of a Rotor-shaped Monomer [PI-103]Simon T. Cerqua, *A. Dieter Schlüter*, ETH Zurich**Tripeptides as Additives for the Controlled Formation of Palladium Nanoparticles [PI-104]**Stefano Corrà, *Helma Wennemers*, ETH Zurich**Engineering alginate-based hydrogels for cell microencapsulation [PI-105]**Virginia Crivelli, *Christine Wandrey*, EPFL Lausanne**Poly(m,p-phenylene) based Materials via Suzuki Polycondensation [PI-106]**Bernd Deffner, *A. Dieter Schlüter*, ETH Zurich**Polar silicones to be used in dielectric elastomer actuators [PI-107]**Simon Dünki, EPFL Lausanne, *Dorina Opris*, EMPA Dübendorf**Radiolabeling of Functionalized Nanoparticles with fac-[^{99m}Tc(OH₂)₃(CO)₃]⁺ [PI-108]**Michael Felber, *Roger Alberto*, University of Zurich**Enzyme-catalyzed Atom Transfer Radical Polymerization of Heterocyclic Aromatic Vinyl Compounds [PI-109]**Csaba Fodor, *Nico Bruns*, University of Fribourg**Nano-Handling of Individual Dendronized Polymers [PI-110]**Lucie Grebikova, *Michal Borkovec*, University of Geneva**Self-Assembly of Magnetic Janus Dumbbells [PI-111]**Florian Guignard, *Marco Lattuada*, University of Fribourg**Hybrid bio-responsive nanocapsules [PI-112]**Dawid Kedracki, *Corinne Vebert*, University of Geneva**Gram-Scale Synthesis of Organic Two-Dimensional Polymer Crystals and Exfoliation into Nanometer-Thin Sheets [PI-113]**Max J. Kory, *A. Dieter Schlüter*, ETH Zurich**Enzyme Immobilization with Dendronized Polymer-Enzyme Conjugates for Localized Cascade Reactions [PI-114]**Andreas Küchler, *Peter Walde*, ETH Zurich**pH-dependent Degradation Kinetics of Polylactic Acid [PI-115]**Stefano Lazzari, *Massimo Morbidelli*, ETH Zurich**Synthesis of oriented nano-wires on a microfluidic platform [PI-116]**Mario Lenz, *Petra Dittrich*, ETH Zurich**Poly (N-isopropylacrylamide-co-tris-nitrilotriacetic acid acrylamide) for a combined study of molecular recognition and distance constraints in protein binding and interactions [PI-117]**Juan Liu, *Wolfgang Meier*, University of Basel**Mass spectrometric analysis of the enzymatic polymerization of p-aminodiphenylamine (PADPA) in the presence of vesicles as templates [PI-118]**Sandra Luginbühl, *Peter Walde*, ETH Zurich**Synthesis of biocompatible PEG-based hydrogel by Potassium Acyltrifluoroborate (KAT) Amide-Formation [PI-120]**Dmitry Mazunin, *Jeffrey W. Bode*, ETH Zurich**Charging Behavior of Negatively Charged Particles in Presence of Multivalent Cations [PI-121]**Mohsen Moazzami Gudarzi, *Michal Borkovec*, University of Geneva**1,3-Diamidophospholipids and Analogous Lipids: Synthesis and Characterization [PI-122]**Dennis Müller, *Andreas Zumbühl*, University of Fribourg**Preparation of PDMS/AgNPs nanocomposites with enhanced electromechanical properties [PI-123]**Jose Enrico Quinsaat, *Dorina Opris*, EMPA Dübendorf**Characterization of Artificial Phospholipids and Interactions with Cholesterol [PI-124]**Radu Tanasescu, *Andreas Zumbühl*, University of Fribourg**Pseudomorphic transformation and simultaneous functionalization of silica microspheres [PI-125]**Michael Reber, *Dominik Brühwiler*, Zurich University of Applied Sciences, ZHAW**Assembly of BaTiO₃ Nanocrystals into Macroscopic Aerogel Monoliths with High Surface Area [PI-126]**Felix Rechberger, *Markus Niederberger*, ETH Zurich**Influence of the Potential Barrier on the Breakage of Colloidal Aggregates under External Shear Flows [PI-127]**Zhiqiang Ren, *Marco Lattuada*, University of Fribourg**Preparation of composite materials from aqueous nanoparticles mixed suspensions [PI-128]**Simonetta Rima, *Marco Lattuada*, University of Fribourg**Protein cage-polymer conjugates synthesized by atom transfer radical polymerization as a delivery platform for siRNA [PI-129]**Martin Rother, University of Basel, *Nico Bruns*, University of Fribourg**Functional Polymeric Resins for the Improved Detection of Drugs and Quantification of Neurotransmitters [PI-130]**Mark Schäfer, *Andreas Kilbinger*, University of Fribourg**Propeller-shaped macrocycles with three 1,8-diazaanthracene and three anthracene blades as monomers for topochemical 2D-polymerisation [PI-131]**Marco Servalli, *A. Dieter Schlüter*, ETH Zurich**Immobilization of Biomimetic Block Copolymer Membranes on Solid Supports [PI-132]**Smahan Toughraï, *Wolfgang Meier*, University of Basel**Forces Between Silica Particles in Ionic Liquids and Ionic Liquid-Water Mixtures [PI-133]**Valentina Valmacco, *Michal Borkovec*, University of Geneva**Morphological diversity of supramolecular polymers formed by amphiphilic pyrene oligomer [PI-134]**Mykhailo Vybornyi, *Robert Häner*, University of Berne**Strained Aramide Macrocycles for Ring-Opening Metathesis Polymerization [PI-135]**Aniket Walunj, *Andreas Kilbinger*, University of Fribourg**Building Polymer Light Harvesting Antennas [PI-136]**Christian Winiger, *Robert Häner*, University of Berne**Generalizable amide-promoted approach for high-quality multicomponent semiconductor nanocrystals [PI-137]**

Olesya Yarema, ETH Zurich

Linking self-assembly, rheology and critical behaviour in chemical and colloidal gels [PI-138]

Alessio Zacccone, University of Cambridge

Synthesis of Monolayer Metal-organic Sheets [PI-139]Zhikun Zheng, *A. Dieter Schlüter*, ETH Zurich

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