

# Laureates: Awards and Honors, SCS Fall Meeting 2012

## EDITORIAL

197 *D. Spichiger*

## PARACELSUS PRIZE 2012 (§)

200 Radicals in Stereoselective Synthesis and Electron Transfer Reactions  
*B. Giese<sup>§\*</sup>, S. Eckhardt*

## SANDMEYER AWARD 2012

204 Total Synthesis of Hematoporphyrin and Protoporphyrin; a Conceptually New Approach  
*P. Martin<sup>\*</sup>, M. Müller, D. Flubacher, A. Boudier, D. Spielvogel*

## GRAMMATICAKIS-NEUMANN PRIZE 2012 (§)

207 Probing Electronic Dynamics during Photochemical Reactions  
*A. Tehlar, P. M. Kraus, H. J. Würner<sup>§\*</sup>*

## SCS METROHM PRIZES FOR BEST ORAL PRESENTATIONS (§)

213 Surface Modification of Biomaterials for Conjugation with Human Fetal Osteoblasts  
*F. Borcard<sup>§</sup>, P. Kong, C. Journot, D. Staedler, P. N. Sturzenegger, F. Krauss Juillerat, U. T. Gonzenbach, L. Juillerat-Jeanneret, S. Gerber-Lemaire<sup>\*</sup>*

218 Local Control Theory using Trajectory Surface Hopping and Linear-Response Time-Dependent Density Functional Theory  
*B. F. E. Curchod<sup>§</sup>, T. J. Penfold, U. Rothlisberger, I. Tavernelli<sup>\*</sup>*

222 Nanopatterning by Molecular Self-assembly on Surfaces  
*T. R. Eaton<sup>§\*</sup>, D. Muñoz Torres, M. Buck, M. Mayor<sup>\*</sup>*

227 Total Synthesis of the Myxobacterial Macrolide Ripostatin B  
*F. Glaus<sup>§</sup>, K.-H. Altmann<sup>\*</sup>*

231 Freeze-fracture Shadow-casting (FreSCa) Cryo-SEM as a Tool to Investigate the Wetting of Micro- and Nanoparticles at Liquid-Liquid Interfaces  
*L. Isa<sup>§\*</sup>*

236 Chiroptical Properties of Intrinsically Chiral Thiolate-protected Gold Clusters  
*S. Knoppe<sup>§\*</sup>, T. Bürgi*

240 Kinetic Subpopulations Detected by Single-molecule Spectroscopy: Fundamental Property of Functional Nucleic Acids or Experimental Artefact?  
*S. L. B. König<sup>§</sup>, D. Kowanko, R. K. O. Sigel<sup>\*</sup>*

244 Practical Considerations for Improving the Productivity of Mass Spectrometry-based Proteomics  
*Ü. A. Laskay<sup>§</sup>, K. Srzentić, L. Fornelli, O. Upir, A. N. Kozhinov, M. Monod, Y. O. Tsybin<sup>\*</sup>*

250 Lewis Acid-Water/Alcohol Complexes as Hydrogen Atom Donors in Radical Reactions  
*G. Povie<sup>§</sup>, P. Renaud<sup>\*</sup>*

253 Extracting Information about Chemical Bonding from Molecular Electron Densities via Single Exponential Decay Detector (SEDD)  
*P. de Silva<sup>§\*</sup>, J. Korchowiec, N. Ram J. S., T. A. Wesolowski<sup>\*</sup>*

257 Precision Measurements of Ionization and Dissociation Energies by Extrapolation of Rydberg Series: From H<sub>2</sub> to Larger Molecules  
*D. Sprecher<sup>§</sup>, M. Beyer, F. Merkt<sup>\*</sup>*

262 1,2,3-Triazoles as Amide-bond Surrogates in Peptidomimetics  
*I. E. Valverde<sup>§</sup>, T. L. Mindt<sup>\*</sup>*

## SCS DSM PRIZES FOR BEST POSTERS (§)

- 267 [(Cp-R)M(CO)<sub>3</sub>] (M= Re or <sup>99m</sup>Tc) Conjugates for Theranostic Receptor Targeting  
*D. Can<sup>§</sup>, P. Schmutz, S. Sulieman, B. Spingler, R. Alberto\**
- 271 Methane Catalytic Combustion on Pd<sub>9</sub>/γ-Al<sub>2</sub>O<sub>3</sub> with Different Degrees of Pd Oxidation  
*I. Czekaj<sup>§\*</sup>, K. A. Kacprzak, J. Mantzaras*
- 275 Bioinspired Surfaces Against Bacterial Infections  
*J. Gomes<sup>§\*</sup>, A. Grunau, A. K. Lawrence, L. Eberl, K. Gademann*
- 279 Peptide-catalyzed 1,4-Addition Reactions of Aldehydes to Nitroolefins  
*R. Kastl<sup>§</sup>, Y. Arakawa, J. Duschmalé, M. Wiesner, H. Wennemers\**
- 283 Approaching Two-dimensional Polymers with Macroscopic Sizes  
*P. Payamyar<sup>§</sup>, J. Sakamoto, A. D. Schlüter\**
- 286 New Approaches to Control Infections: Anti-biofilm Strategies against Gram-negative Bacteria  
*R. Sommer, I. Joachim, S. Wagner, A. Titz<sup>§\*</sup>*

## COLUMNS

---

- 291 UNIVERSITIES OF APPLIED SCIENCES  
Modeling and Validation of Heat and Mass Transfer in Individual Coffee Beans during the Coffee Roasting Process Using Computational Fluid Dynamics (CFD)  
*B. Alonso-Torres, J. A. Hernández-Pérez, F. Sierra-Espinoza, S. Schenker, C. Yerezian\**
- 295 SWISS SCIENCE CONCENTRATES  
Prepared by  
*N. Bruns, P. Burch, R. Reuter, P. Tosatti, T. R. Ward*
- 296 HIGHLIGHTS OF ANALYTICAL SCIENCES IN SWITZERLAND  
Mass Spectrometric Imaging Applied to Biomedical Research  
*D. Staab, G. Morandi, M. Stoeckli\**
- 297 POLYMER AND COLLOID HIGHLIGHTS  
Adsorption and Microstructure of Core-Shell Nanoparticles at Liquid-Liquid Interfaces: An X-ray Reflectivity Study  
*L. Isa\**
- 298 SCNAT  
Chemical Landmark 2012 – Designation of Rosental –  
The Cradle of the Basel Chemical Industry and of the Novartis Company Archive  
*B. Winter-Werner\**
- 300 SCNAT  
New Chief Science Officer and Board Member of the «Platform Chemistry»  
*A. K. Lawrence\**

## SWISS CHEMICAL SOCIETY

---

- 301 KGF-SCS Industrial Science Awards
- 303 A warm welcome to our new members!
- 304 Polycoll 2013: Annual Meeting of the Division of Polymers, Colloids and Interfaces
- 305 Division of Analytical Sciences: Weiterbildung Analytik

## INFORMATION

---

- 306 News
- 306 Conferences/Workshops/Symposia
- 307 Lectures

## CHIMIA REPORT/COMPANY NEWS

---

- 310 Markt, Apparate, Chemikalien und Dienstleistungen