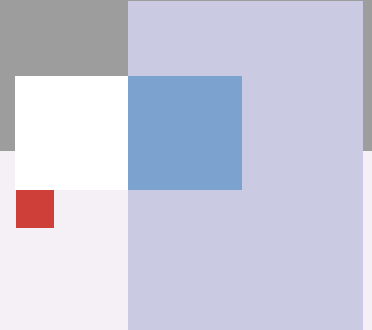


Empa Activities 2009/2010



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Empa Activities 2009/2010

Awards

Advanced Fibers	Lübben, Jörn , Kaufmann, Josef , Trindler, Walter	Empa Innovation Award, Empa PhD Symposium, Dübendorf
Analytical Chemistry	Hagendorfer, Harald , Lorenz C. , Gehrig, Robert , Kägi, R. , Sinnert B. , Ludwig. Ch. , Ulrich, Andrea	Poster Award, Conference on Plasmaspectrometry, Graz (AT)
	Ulrich, Andrea , Hagendorfer, Harald , Ludwig, Ch.	Best Poster Award, CANAS, Freiberg (DE)
Analytical Chemistry, Air Pollution/Environmental Technology	Heeb, Norbert , Ulrich, Andrea Emmenegger, Lukas	Sandmeyer Research Award, Swiss Chemical Society, Neuenburg
Biomaterials	Thöny-Meyer, Linda	Honorary doctor degree, Lund University (SE)
Center for Synergetic Structures	Luchsinger, Rolf , Crettol, René	Tsuboi Award, Most outstanding paper, IASS Annual Symposia, Valencia (ES)
Concrete/Construction Chemistry	Lura, Pietro	Robert L'Hermite Medal, RILEM, Haifa (IL)
	Lura, Pietro	Watson Medal, American Concrete Institute, San Antonio (USA)
	Matschei, Thomas	Award Hans-Jürgen-Kuzel for PhD Thesis, ZWL and PANalytical BV, Lauf (DE)
Corrosion and Materials Integrity	Suter, Thomas	Research Grant, Lam Research Funding, Cincinnati (USA)
Functional Polymers	Shaw-Stewart, James	Best Student Poster Award, E-MRS Conference, Strasbourg (FR)
Internal Combustion Engines	Mauke, David	Börje-Holmberg-Award for best diploma thesis, University of Applied Sciences Wilhelm Büchner, Darmstadt (DE)
	Schlienger, Peter , Bach, Christian	Finalist Swiss Technology Award, Swiss Innovation Forum, Basel
Joining and Interface Technology	Bissig, Vinzenz	Best Presentation, Empa PhD Symposium, Dübendorf
Materials-Biology Interactions	Born, Anne-Kathrin	Award for best oral student presentation, Swiss Society for Biomaterials, ESB Meeting, Lausanne
Mechanical Systems Engineering	Jordi, Christa , Dürager, Christian Mayer, Thomas	Best Poster Award, Empa PhD Symposium, Dübendorf
	Mayer, Thomas	ETH Medal for outstanding Masterthesis, Zürich
	Radosavljevic, Marko	SEW EURODIVE Award for outstanding scientific achievement (Masterthesis), Bruchsal (DE)
	Sauter, Michael	2 nd Prize for best young engineer poster, ECCO Conference, Dübendorf
		Robert Heuberger Award, Young Entrepreneurship, Winterthur
Media Technology	Sprow, Iris	Selwyn Award of the Royal Photographic Society, Bath (UK)
Nanoscale Materials Science	Bauert, Tobias	Poster Award, INASCON Conference, Sursee
	Merz, Leo	Best Poster Presentation Award, Swiss Chemical Society, Zürich
nanotech@surfaces	Treier, Matthias	Empa Research Award, Empa PhD Symposium, Dübendorf
Structural Engineering	Weber, Felix , Boston, Charles , Feltrin, Glauco	Best Paper Award, SHMII 4 Conference, Zürich
Technology and Society	Nowack, Bernd	Honoree of the Society of Scholars, Johns Hopkins University, Baltimore (USA)
	Reinhard, Jürgen	Tiburtius Award (1 st Prize) for Masterthesis, Freie Universität Berlin (DE)
	Steubing, Bernhard	Best Poster Award, Internatl. Workshop, ETHZ-CCSS, Zürich
Technology and Society/ Advanced Fibers	Som, Claudia , Köhler, Andreas , Halbeisen, Marcel	Rhodia Award for best poster and best presentation, MESD Conference, Metz (FR)

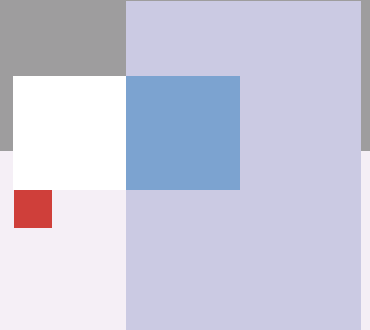
Empa Activities 2009/2010

Awards

Thin Films and Photovoltaics	Chirila, Adrian	Best poster Award, IEEE Conference, Philadelphia (USA)
	Seyrling, Sighhard	Best Poster Award, IEEE Conference, Philadelphia (USA)

Empa Activities 2009/2010

Publications



Publications	3
Advanced Materials and Surfaces	5
Civil and Mechanical Engineering	15
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Information, Reliability and Simulation Technology	26
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Advanced Materials Processings

Derler, S./Gerhardt, L. C./Lenz, A./Bertaux, E./Hadad, M.
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Pathak, S./Stojakovic, D./Kalidindi, S. R.
Measurement of the local mechanical properties in polycrystalline samples using spherical nanoindentation and orientation imaging microscopy. Acta Materialia 2009, 57(10), 3020–3028 (joint paper) ★

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Mechanism and kinetics of the reduction of magnetite to iron during heating in a microwave E-field maximum. Journal of Applied Physics 2009, 105(12), Article number Joining and Interface Technology901 (4 pp.) ★

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A preliminary quantitative XPS study of the surface films formed on pure magnesium and on magnesium-aluminium intermetallics by exposure to high-purity water. 4th International Light Metals Technology Conference (LMT), Gold Coast (QLD), Australia, 28 June – 1 July 2009, 255–262

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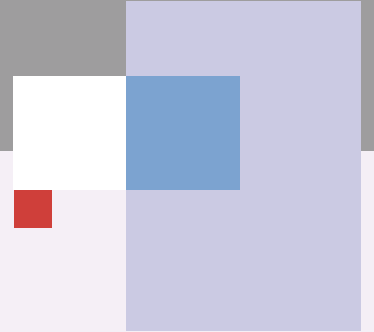
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Department Advanced Materials and Surfaces

Conferences

Bona G.-L.

3rd World Materials Research Institute, Forum & Energy Workshop and Symposium on Materials Challenges for Clean Energy, Rockville MD, USA, 06-21 thru 25 ○ ●

Schlapbach, L.

International Conference on Green & Sustainable Chemistry, 08-03 thru 05 ○ ●

Symposium on frontiers in Nanotechnology and materials 2009, 10-23 ○ ●

Advanced Materials Processing

Bidiville, A./Wasmer, K./Kraft, R./Ballif, C.

Diamond Wire-Sawn Silicon Wafers – From the Lab to the Cell Production, 24th European Photovoltaic Solar Energy & Exhibition, Hamburg, Germany, 09-21 thru 25 ◆

Bret, T./Hoffmann, P./Utke, I.

Characterization of focused electron beam (25 keV) deposited materials from organic precursors, ESF COST Conference Electron Controlled Chemical Lithography, Istanbul. Türkei, 06-05 thru 08 ◆

Hadad, M.

Adhesion and residual stress evaluations of thermally sprayed coatings: in-plane tensile and Rockwell indentation tests, 4th (RIPT) International Conferences of thermal spraying, Lille, France, 12-02 thru 04 ○

Hadad, M./Bandyopadhyay, P. P./Michler, J./Lesage, J.

Tribological behaviour of thermally sprayed Ti–Cr–Si coatings, Wear of Materials WOM 2009, Las Vegas, USA, 09-19 thru 23 ○ ●

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Tribological behaviour of sandwich structure WC-Co-Cr thermally sprayed coatings, 2nd European Conference on Tribology, Pisa, Italy, 06- 07 thru 10 ■ ○ ●

Kollo, L.

Engineering Materials & Tribology Baltmattrib 2009, Tallinn, Estonia, 10-22 thru 23

Kollo, L./Bradbury, C./Leparoux, M.

Al-SiC nanocomposites produced by high-energy milling and hot pressing, 18th Int. Baltic Conference ENGINEERING MATERIALS & TRIBOLOGY, BALTMATTRIB 2009, Tallinn, Estonia, 10-22 + 23 ○

Leparoux, M.

Silicon carbide nanoparticles synthesis for the elaboration of nanostructured materials, Int. round table Charact. Thermal Plasmas, Alexandria, Egypt, 01-23 thru 25 ◆

Inductively coupled RF thermal plasma: a versatile tool for the synthesis of nanoparticles, 17th Int. Coll. Plasma Processes, CIP09, Marseille, France, 06-22 thru 26 ○

Influence of the quenching conditions on the RF thermal plasma synthesis of silicon nanopowders, Int. round table Charact. Thermal Plasmas, Alexandria, Egypt, 10-24 thru 28 ○ ●

Nicola, R.

Microwave Crystallization of Amorphous Fe85B15 Alloys: Time-Resolved Synchrotron Radiation, X-Ray Diffraction Experiments, WPI Europe Metal Glasses, Grenoble, France, 25-28.08 ◆

Pathak, S./Doherty, R./Kalidindi, S. R./Wasmer, K./Michler, J.

Investigations of Local Structure-Property Relations at Grain Boundaries, Spring MRS Meeting, San Francisco, USA, 04-13 thru 17 ○

Pathak, S./Doherty, R./Wasmer, K./Michler, J./Kalidindi, S.R.

Investigating the Hall-Petch Effect at Grain Boundaries in Metals, Materials Research Society Symposium II: Probing Mechanics at Nanoscale Dimensions, San Francisco, USA, 04-13 thru 17 ○

Pathak, S./Ghisleni, R./Liu, J./Raghavan, R./Wasmer, K./Michler, J.

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Pathak, S./Kalidindi, S. R.

Development and Validation of a Novel Data Analysis Procedure for Spherical Nanoindentation, Massachusetts Institute of Technology, Cambridge, USA, 04-23 ○ ●

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Investigations of Local Structure-Property Relations at Grain Boundaries Using Spherical Nanoindentation and Orientation Imaging Microscopy, Materials Science & Technology 2009, Structural Transitions and Local Deformation Processes At and Near Grain Boundaries, Pittsburgh, UK, 10-25 thru 29 ○ ●

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Vaucher, S.

Time resolved imaging of material changes under microwave irradiation, IEEE International Microwave Symposium Boston, USA, 06-07 thru 12 ○ ●

Real-time Monitoring of Structure Formation in Metallic Glasses and Alloys upon Microwave Heating: Recent Developments, WPI Europe Metal Glasses, Grenoble, France, 08-25 thru 28 ○

Wasmer, K.

Fracture Mechanics: Real Cases, SINTEF, Department Mechanics and Chemistry, Trondheim, Norway, 06-09 ○ ●

Wasmer, K./Bidiville, A./Ballif, C./Van der Meer, M./Nasch, P. M.

Study of the Influence of Feed Rate and Wire Tension on the Mechanical Stability of Wire-Sawn Silicon Wafers, 3rd International Workshop on Crystalline Silicon Solar Cells, Trondheim, Norway, 05-03 thru 05 ○

Wasmer, K./Nikbin, K. M./Webster, G. A.

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Corrosion and Materials Integrity

Abodi, L.C./Van Damme, S./Andrei, D./DeRose, J./Suter, T./Deconinck, J.

Modeling localized aluminium corrosion in chloride solutions, ASST 2009, Leiden, NL, 05-10 thru 14 ○

Barthes, M.G./Schmutz, P.

Growth Mechanisms and Properties of Oxide Films Formed on Al-based CMA Surface, C-MAC1 Conference, Nancy, F, 10-07 ○ ●

Beni, A./Parle, J./Bauer, B./Gille, P./McGrath, R./Barthés, M.G./Schmutz, P.

Characterisation of Oxidation Behaviour and Aqueous Corrosion Mechanisms of Al-Cr-Fe CMA, IV Euroschool on Materials Science, Mons Hotel Ljubljana, HRV, 05-25 thru 30 ◆

Beni, A./Parle, J./Wardé, J./Bauer, B./Dhanak, V./Smerdon, J. et al. Characterization of Oxidation Behaviour and Aqueous Corrosion Mechanisms of Al-Cr-Fe CMA; C-MAC1 Conference, Nancy, F, 10- 02 thru 07 ◆

Beni, A./Schmutz, P.

Aqueous and Corrosion and Oxidation Processes on Al-Cr- (Cu)-Fe Complex Metallic Alloys, 3rd Topical Workshop on Surfaces of Complex Metallic Alloys III, Fritz Haber Insitut der Max Plack Gesellschaft, Berlin, D, 04-20 thru 27 ○ ●

New Complex Metallic Alloys for Industrial Applications: Tribological, Adhesion and Corrosion Resistance Properties, Aperiodic09, 6th International Conference on Aperiodic Crystals, University of Liverpool, UK, 09-13 thru 18 ○ ●

Beni, A./Ura-Binczyk, E./Quach-Vu, N./DeRose, J. A./Schmutz, P. Aqueous Oxidation and Microelectrochemical Characterisation of Corrosion Mechanism for Al-Cr-(Cu)-Fe Complex Metallic Alloys, periodic09, 6th Internatinoal Conference on Aperiodic Crystals, University of Liverpool, UK, 09-13 thru 18 ◆

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Cetinkaya, N./Hoffmann, C./Treichel, D. Geschlechtergleichstellung durch wertgeschätzte Vielfalt am Beispiel der technischen Forschungseinrichtung Empa, Managing Gender und Diversity – Engendering Reflexivity and Change? Fachtagung 2009 Universität St. Gallen, 28-05 thru 30 ◆

Faller, M.

3-Länder-Korrosionstagung Nichtrostender Stahl – Reinigen, Beizen, Passivieren Korrosionsschutz Optimieren!, Basel, 04-20 thru 21 ■

Sinnvolle Prüfung der Korrosionsbeständigkeit nicht rostender Stähle – Vergleich Austenit – Ferrit, Weiterbildungsveranstaltung des SVMT, Rostfreie Stähle, ETH, Zürich, 09-10 ○ ●

Lübben, J. F./Crespy, D./Reiss, D./Schmutz, P./Rossi, R./Heuberger, M. Characterization of synthetic fibers using the atomic force microscope, NanoEurope 2009, Program CCMX Technology Apéro, Rapperswil, 11-25 thru 29 ○

Reiss, D./Quach-Vu, N. C./DeRose, J. A./Schmutz, P. Combinatorial Electrochemical and Surface Oxidation Porperties Characterization on Al-Cu-Fe PVD Gradient Coatings, C-MAC 1 Conference, Nancy, F, 10- 02 thru 07 ◆

Rizvic, N./Zraggen, M./Winkler, R.

Flüssigmetallinduzierte Rissbildung beim Stückverzinken; Untersuchungsergebnisse aus der Praxis, Tagung Gefüge und Bruch, Montanuniversität Leoben, D, 04-22 thru 24 ◆

Schmutz, P.

Eurointerfinish 2009: Micro and Nanocorrosion, Scanning Probe Techniques, Simulation and Modelling, 09-23 thru 24 ■

Schmutz, P./Quack-Vu NC./Berg, M./Hänzi, A./Uggowitzer, P.J.

In-vitro «electro»-chemical Investigation of Mg-Y-RE corrosion mechanisms in «biologically relevant» environments, Termec 2009, Berlin, D, 08-27 ○ ●

Suter, T.

Micro- and Nanoelectrochemical Studies for Localized Corrosion, Local Hydrogen Analytics, Surface Modification, Sandia National Laboratories, USA, 08-05 ○ ●

Functional Polymers

Araujo de Castro, F./Heier, J./Nüesch, F./Hany, R.

On the S-shape in Current vs. Voltage Curves of Organic Photovoltaic Cells, E-MRS Spring Meeting, Symposium A, Strasbourg, France, 06-08 thru 12 ◆

Origin of the Kink in Current-Density vs. Voltage Curves and Morphological Optimization of Polymer-C60 Heterojunction Solar Cells, Plastic Electronics Europe, Dresden, Germany, 10-28 ○ ●

Chu, B./Hollertz, R./Chakraborty, A.-K./Plyhm, T./Barbezat, M./Geiger, T. et al.

Production of Masterbatches with functionalized carbon nanotubes – From Science to Market, 10-25 thru 26 ○

Dinca, V./Fardel, R./Nagel, M./Di Pietrantonio, F./Cannatà, D./Verona, E. et al.

Laser-Induced Forward Transfer: An Approach to Single-Step Polymer Microsensor Microfabrication. E-MRS Spring Meeting, Symposium L, Strasbourg, France, 06-08 thru 12 ○

Dodd, M.C./Rentsch, D./Singer, H.P./Kohler, H.-P. E./von Gunten, U. Transformation of Beta-lactam Antibacterial Agents during Aqueous Ozonation: Reaction Pathways and Quantitative Bioassay of Biologically-Active Oxidation Products / AEESP (Association of Environmental Engineering and Science Professors)/ University of Iowa, 07-26 thru 29 ○

Fan, B./Hany, R./Geiger, T./Moser, J.-E./Nüesch, F.

Oxidative doping of cyanine/C60 organic solar cell, Luxor, Egypt, 01-10 thru 14 ○ ●

Fan, B./Heier, J./Benmansour, H./Araujo de Castro, F./Geiger, T./Nagel, M. et al.

The use of cyanine dyes in solid state organic heterojunction solar cells, E-MRS Spring Meeting, Symposium A, Strasbourg, France, 06-08 thru 12 ○ ●

and MRS Fall Meeting, Boston, USA, 11-30 thru 04-12 ○

Hany, R.

Novel Organic Materials for PV Applications, SwisslaserNet, 3rd GenPhotovoltaics, CSEM Basel, 08-19 ●

Heier, J./Benmansour, H./Fan, B./Araujo de Castro, F./Geiger, T./Nagel, M. et al.

The use of polymethine dyes and polymers in organic based photovoltaic», Luxor, Egypt, 01-10 thru 14 ○ ●

Heier, J./Steiger, R./Nüesch, F./Hany, R.

Instant Formation of Cyanine J- and H-aggregates during Phase Separation E-MRS Spring Meeting, Symposium A, Strasbourg, France, 06-08 thru 12 ○

and MRS Fall Meeting, Boston, USA, 11-30 thru 04-12 ◆

Hollertz, R./Chu, B./Araujo de Castro, F./Nüesch, F.

Graphene Reinforced Nanocomposites, 10-25 thru 26 ◆

Kaur, K.-S./Fardel, R./May-Smith, T.-C./Banks, D.-P./Nagel, M./Grivas, C. et al.

Nanosecond-shadowgraphic imaging of laser-induced forward transfer of ceramics using a triazene polymer sacrificial layer. E-MRS Spring Meeting, Symposium Q, Strasbourg, France, 06-08 thru 12 ◆

Kuster, S./Hochleitner, S./Nüesch, F./Geiger, T.

Unsymmetrical NIR absorbing squaraine dye dimer for DSC applications, KOPO 2009 Workshop für konjugierte Oligomere & Polymere, 09-13 thru 16 ◆

and E-MRS 2009 Spring Meeting

in Strasbourg, France, 12-06 thru 08 ◆

Mayerhofer, K. E./Heier, J./Maniglio, Y./Keller, B.

Three dimensional analysis of self-structuring organic thin films with TOFSIMS, SIMS XVII, Toronto, 09-14 thru 18 ○

Molberg, M.

Low-frequency Dielectric, Mechanical, and Actuation Behaviour of Dielectric Elastomers

MRC Graduate Symposium / ETH Zürich, 10-06 ○

Molberg, M./Opris, D./Walder, C./Nüesch, F./Kovacs, G./Düring, L./Löwe, C.

Dielectric and mechanical characterization of elastomers for dielectric elastomer actuator technology, Forum Intelligente Werkstoffe, Fraunhofer IOA Stuttgart, 04-19 thru 20 ○ ●

Nagel, M./Fardel, R./Nüesch, F./Lippert, T./Wokaun, A.

Leuchtpolymer-Pixel aus dem Laser-Katapult, DECHEMA-Tagung Polyreaktionen, Frankfurt, Germany, 01-19 thru 20 ○ ●

Nagel, M./Fardel, R./Shaw Stewart, J./Nüesch, F./Lippert, T./Wokaun, A.

Aryltriazene Photopolymer Films as Laser-triggered Sacrificial Absorbing Layers, E-MRS Spring Meeting, Symposium Q, Strasbourg, France, 06-08 thru 12 ◆

Nüesch, F.

«Morphological effects in conjugated polymer / fullerene heterojunction solar cells»,

Physik Kolloquium, Universität Potsdam., 07-16 ○ ●

Elektronik der Zukunft, Trilogie – 3. Fachtagung Organic

(Organische Elektronik), Einzigartigkeit organischer Halbleiter, ZHAW, Winterthur., 07-02 ○ ●

Opris, D.

Phthalocyanines and encapsulated polyaniline nanoparticles as fillers for dielectric elastomers, SPIE Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring, 16th Annual International Symposium EAPAD, San Diego, 03-9 thru 12 ○

Rapp, L./Diallo, A.-K./Nénon, S./Alloncle, A.-P./Delaporte, P./Videlot-Ackermann, C. et al.

Study of the patterning of organic thin film assisted by a Laser-Induced Forward Transfer technique: application to plastic micro-electronics., E-MRS Spring Meeting, Symposium Q, Strasbourg, France, 06-08 thru 12 ◆

Shaw Stewart, J./Fardel, R./Nagel, M./Delaporte, P./Rapp, L./Cibert, C. et al.

The effect of different laser pulse lengths upon laser induced forward transfer using a triazene polymer as a sacrificial layer.

E-MRS Spring Meeting, Symposium Q, Strasbourg, France, 06-08 thru 12 ◆

Simeunovic, M./Hochleitner, S./Kuster, S./Geiger, T./Nüesch, F.

KOPO 2009 Workshop für konjugierte Oligomere & Polymere, 09-13 thru 16 ◆

Stähelin, C./Dick, F./Ferrari, S./Rentsch, D.

¹H,¹³C-HSQC HRMAS-NMR as a Tool for Investigating the Quality of Fmoc-AA-Wang Resins for SPPS / APS

American Peptide Symposium / Indiana University, Bloomington, USA, 06-07 thru 12 ◆

Vismara, M./Araujo de Castro, F./Uhle, E./Graeff, C.F.O.

Dosimetria de radiação gama utilizando corante polimerizado a base de cianino, V Congresso de Física Aplicada à Medicina, Botucatu, Brazil, 10-22 ◆

Walder, C./Molberg, M./Opris, D./Nüesch, F./Löwe, C. et al.

High k Dielectric Elastomeric Materials for Low Voltage Applications, SPIE Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring, 16th Annual International Symposium EAPAD, San Diego, USA, 03-9 thru 12 ○

High Performance Ceramics

Blugan, G.

Processing and Properties of Alumina/Carbon Nanofiber Ceramic Composites, Euromat 2009, Glasgow, UK, 09-07 thru 10 ◆

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Single molecule manipulation and chemistry at surfaces via inelastic electron tunneling, Symposium on Surface Science, St. Moritz, 03-07 thru 14 ◆

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Aspects of supramolecular and single molecule surface chirality, EUCHEM Stereochemistry Bürgenstock Conference, Brunnen, 05-17 thru 22 ○ ●

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Aspects of chirality in molecular monolayers: Enantiomorphism and amplification. Invited keynote lecture, ISCD-21 / Chirality 2009, Breckenridge, Colorado, USA, 07-12 thru 15 ○ ●

Inelastic electron tunneling action spectroscopy,

Spanish Vacuum Society, Workshop, Avila, Spain, 07-27 thru 29 ○ ●

Two-dimensional models systems for solid state phase transitions: buckybowls at surfaces,

Physikalische Chemie, Universität Bonn, 10-23 ○ ●

Aspects of chirality in two-dimensional systems,

Foundations of Physical Chemistry, Univ. Göttingen, 10-28 ○ ●

Amplification of chirality via cooperative interactions at surfaces, Symposium Chemical Approaches to Chirality, Tokyo University of Science, Japan, 11-25 ○ ●

Atomic Layer Characterization ALC, Maui, Hawaii, 12-06 thru 11 ■

Hopping, flipping, cutting: inelastic electron tunneling action spectroscopy with single-molecules 7th International Symposium on Atomic Level Characterizations 2009 (ALC'09), 12-06 thru 11 ○ ●

Falub, C.

Adhesion Lifetime Prediction of Diamond-Like-Carbon (DLC) Coatings on Biomedical Implants, Meet the Expert, Material- und Oberflächentechnologie für Implantate, Interlaken, 03-19 thru 20 ○

Adhesion of Diamond Like Carbon (DLC) Coatings on Metallic Biomedical Implants,

ICMCTF Conference, San Diego, 04-26 thru 5-1 ○

Hauert, R.

Organization and chairman of Session D2, ICMCTF Conference San Diego, 04-26 thru 5-1 ■

DLC Coated Spinal Disks with Predictable Long Term Adhesion, ICMCTF Conference, San Diego, 04-26 thru 5-1 ◆

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Hauert, R.

State-of-the-art and future of coated articulating implants with determined long term adhesion, Fraunhofer – Institut Werkstoffmechanik, IWM, Freiburg i. Br., 09-18 ○ ●

Hug, H. J.

The role of uncompensated spins for the exchange bias effect, IFW Dresden, Germany, 07-16 ○ ●

Keller, B. A.

Chemical Characterization of Materials Surfaces with TOF-SIMS, 2nd Workshop on Nanoanalysis, CCMX Event Series, EPFL Lausanne, 10-08 ○ ●

Marioni, M.

WUT-NIMS-Empa Workshop, Tsukuba, Japan, 11-12 thru 13 ■ ○

Mayerhofer, K-E./Keller, B. A./Heier, J.

Three dimensional analysis of self-structuring organic thin films with TOF-SIMS, 17th Int. Conf. on Secondary Ion Mass Spectrometry, Toronto, CA, 09-13 thru 18 ○

Merz, L.

Corannulene on Cu(111): A model system to study polymorphism and phase transitions in 2D, Symposium on Surface Science, St. Moritz, 03-07 thru 14 ○

Symmetry mismatch and reversible polymorphism in 2D molecular crystals, ECOSS29, Parma, I, 08-30 through 09-04 ○

Norris, A.

SSOM, Interlaken, CH, 07-16 ◆

Parlinska-Wojtan, M./Pelisson, A./Rzepiejewska-Malyska, K./Silviu C. S./Rosen-do Sanjines/Levy, F. et al.

TEM study of interface, s in transition metal nitride thin films and their influence on their properties Micros, copy Conference 2009, Graz AT), 08-30 thru 09-04 ○

Parschau, M.

Surface dynamics and chemistry of propene on Cu(211) induced by inelastic electron tunneling, ECCL (Electron Controlled Chemical Lithography) meeting, Istanbul, Turkey, 06-04 thru 09 ○ ●

Corannulene on Cu(111): A model system to study polymorphism and phase transitions in 2D ASEVA

(Spanish Vacuum Society) Workshop, Avila, Spain, 07-27 thru 29 ○ ●

Single molecule manipulation and chemistry at surfaces via inelastic electron tunneling, Nanostructures at Surfaces, Monte Verita, Ascona, 09-20 thru 25 ◆

Patscheider, J.

ICMCTF, San Diego, CA (USA) General Chairman, 04-26 thru 05-01 ■

Influence of Bias Voltage on the Microstructure and Physical Properties of Magnetron Sputtered ZrSiN Nanocomposite Thin Films, ICMCTF, San Diego, CA (USA), 04-26 thru 05-01 ◆

Carbide-based nanocomposite thin films – structures and properties Diamond 09, Athens (GR), 09-06 thru 10 ○ ●

Pelisson, A./Hug, H. J./Patscheider, J.

The thin film system Al-Si-N: solid solutions, nanocomposites and nanomultilayers, 6th HIPIMS days, Sheffield (UK), 07-01 thru 02 ○ ●

Al-Si-N nanostructures IUVSTA workshop «Self-assembled thin Films», Busan (Korea), 09-17 thru 20 ○ ●

The thin film system Al-Si-N – solid solutions, nanocomposites and nanomultilayers AEPSE, Busan (Korea), 09-21 thru 24 ○ ●

Solid solutions, nanocomposites and nanomultilayers in the system Al-Si-N, 56th AVS Symposium, San José, CA (USA), 11-07 thru 13 ■ ○

Pilet, N.

SSOM, Interlaken, 07-13 thru 18 ○

12th International Conference on Noncontact Atomic Force Microscopy, Yale, USA, 08-11 thru 14 ◆

Rosbach, P./Roos, S./Crockett, R./Equey, S.

The Chemistry of Tribofilms on Steel and diamond-like carbon (DLC), 17th International Conference on Secondary Ion Mass Spectrometry, Toronto, CA, 09-13 thru 19 ◆

Roth Ch.

3rd International Nanoscience Student Conference, Sursee, 08-20 thru 23 ◆

Thorwarth, G.

Tribological Behavior of DLC Coated Spinal Disk Implants, Meet the Expert, Material- und Oberflächentechnologie für Implantate, Interlaken, 03-19 thru 20 ◆

and ICMCTF Conference, San Diego, 04-26 thru 5-1 ○

and ECOTRIB09, Pisa, 06-7 thru 10 ○

nanotech@surfaces

Bieri, M.

Bottom-Up Approach Towards the Fabrication of 2D Superhoneycomb Polymer Networks, molCHsurf IV, Bern, 06-22 ○

A surface-chemical approach to the fabrication of 2D superhoneycomb polymer networks, Joint Annual Meeting of the Swiss- and Austrian Physical Society, Innsbruck, A, 09-02 thru 04 ○

Bieri, M./Treier, M./Ait-Mansour, K./Ruffieux, P./Kastler, M./Müllen, K. et al.

Bottom-Up Approach Towards the Fabrication of Surface-Supported Two-dimensional Polymers, Symposium on Surface Science 3S'09, St. Moritz, 03-08 thru 14 ■ ◆

Bottom-Up Approach Towards the Fabrication of Surface-Supported Two-dimensional Networks, SwissNano2009 Workshop on Nanoscience, Basel, 06-11 thru 12 ■ ◆

Buchs, G./Ruffieux, P./Krashennikov, A. V./Bercieux, D./Gröning, O. Electron Scattering Dynamics at Carbon Nanotube defects, Symposium on Surface Science 3S'09, St. Moritz, 03-08 thru 14 ■ ◆

Cañas-Ventura, M. E./Ruffieux, P./Rieger, R./Müllen, K./Fasel, R. Hydrogen-bond effects on the electronic structure of surface-supported supramolecular assemblies, Symposium on Surface Science 3S'09, St. Moritz, 03-08 thru 14 ■ ◆

Fasel, R.

Hydrogen-bond effects on the electronic structure of surface-supported supramolecular assemblies, Symposium on Surface Science 3S'09, St. Moritz, 03-10 ■ ◆

Fasel, R.

Polycyclic Aromatic Hydrocarbons on Surfaces: Self-Assembly and Surface-Assisted Nanostructure Formation,
Max-Planck-Institute for Polymer Research, Mainz, D, 04-22 ■

Aromatics in flatland: Expressions of chirality, host-guest complexation and network formation on metal surfaces,
International Symposium on Novel Aromatic Compounds ISNA-13, Luxemburg, 07-23 ○ ●

Induction of chirality in two-dimensional systems,
10th International Conference on Atomically Controlled Surfaces, Interfaces and Nanostructures, Granada, Spain, 09-23 ○ ●

Surface-supported molecular nanostructures,
Institut für Physikalische und Theoretische Chemie, Universität Bonn, Germany, 09-23 ○ ●

Gaspari, R.

Interplay between steps and reconstruction in Au(111) vicinal surfaces: classical and ab initio simulations,
ECOSS 26, Parma, Italy, 08-30 thru 09-04 ○

Theoretical investigation of Au(111) stepped surfaces: from structure to function – NIMS-WUT-Empa Workshop – Tsukuba, 11-12 thru 13 ○ ●

Gröning, O.

Atomic template surfaces for guided self-assembly of organic molecules, ITSLEIF Winterschool 2009, Morzine, F, 03-03 ○ ●

Ion interactions with nanocarbon structures,
ITSLEIF Winterschool 2009, Morzine, F., 04-03 ○ ●

Ion induced modifications of single-walled carbon nanotubes,
Solidstate Physics Colloquium Paul Scherrer Institute (PSI), Villigen, 04-24 ○ ●

Nanotechnologie: Von den Grundlagen zur Anwendung,
Seminar Pädagogische Hochschule Zentralschweiz, Luzern, 05-11 ○ ●

Electron scattering observed by STM/STS at artificially created defects on single-walled carbon nanotubes,
CECAM Workshop: Computational Studies of Defects in Nanoscale Carbon Materials 2009, Lausanne, 05-12 v ●

Electron scattering on single walled carbon nanotubes,
4th Workshop on Spectroscopies and Low Dimensional Systems SPLDS'09, Nancy, F, 05-14 ○

Nanotechnologie an der Empa, Swiss CTO Meeting
Nanotechnology, Wangen bei Dübendorf, 08-25 ○ ●

Nanotechnologie: Von den Grundlagen zur Anwendung,
Schulungstag des Schweizerischen Aerosolverbandes, Feusisberg, 11-13 ○ ●

STM/STS characterization of defects in carbon and nanocarbon structures, Workshop: Towards reality in nanoscale materials'09, Levi, Finnland, 12-06 ○ ●

Gröning, P.

Jahrestagung SAOG: 25 Years of Surface Science and SAOG,
Fribourg, 01-23 ■

Kohlenstoff-Nanoröhrchen: Prototypmaterial der Nanotechnologie,
Physikalische Gesellschaft Zürich, ETHZ, 03-02 ○ ●

Mikro und Nano: Ein Traumpaar?, Swiss MNT Network,
Fachhochschule Winterthur (ZHAW), 04-21 ○ ●

Nanotechnologie: Ein Ansatz die natur zu imitieren,
LIONS Club Meilen, 08-27 ○ ●

Jahrestagung der Schweizerischen Physikalischen Gesellschaft,
Innsbruck (A), 09-09-2-4 ■

Nanotech Europe 2009, Berlin, 09-09-28-30 ■

Carbon Nanotubes and their use in field emission displays,
Nanotechday Fribourg, 10-01 ○ ●

Nanotechnologie: Technik der Zukunft?, ISK 2009 Internationale Baufach- und Sachverständigentagung Ausbau + Fassade, Schwarzenberg (A), 10-17 ○ ●

Carbon Nanostructures for Electronic Applications,
Colloquium Uni Basel, 11-06 ○ ●

Nguyen, M. T.

Hydrogen Bonded Bimolecular Monolayers on Au(111):
A DFT Study, Asian Consortium of Computational Materials Science (ACCMS-5) conference, Hanoi, Vietnam, 09-08 thru 11 ○

The role of van der Waals interactions in a hydrogen-bonded supramolecular network on Au(111) – Structure and dynamics of Hydrogen-bonded systems, Trieste, I, 10-27 thru 28 ◆

Passerone, D.

Metal surfaces as templates: from structure to function,
MOLCHSURF 09, Bern, 06-22 ○ ●

Molecules and surfaces: how an absolutely not superficial teacher introduced me to superficial phenomena, Not only surfaces: workshop in honor of Prof. Levi, Genova, Italy, 07-16 ○ ●

Interfaces and surfaces: a computational insight,
Workshop Reflections on Metal/ceramic interface design, Zürich, 07-20 thru 22 ○ ●

Pignedoli, C.

A simple hybrid classical/DFT approach for the simulation of molecules on metallic substrates, European Conference on Surface Science – ECOSS 26, Parma, Italy, 08-30 thru 09-04 ◆

Metal/Ceramic interface design: how ab initio simulations can help,
EUROMAT 2009, Glasgow, UK, 09-07 thru 10 ○ ●

Pignedoli, C./Passerone, D.

Reflections on Metal/ceramic interface design – CECAM Workshop,
Zürich ETHZ Hönggerberg, 07-20 thru 22 ■

Ruffieux, P.

Electron Scattering Dynamics at Carbon Nanotube defects,
Symposium on Surface Science 3S'09, St. Moritz, 03-08 thru 14 ■ ◆

Ruffieux, P./Ait-Mansour, K./Bendounan, A./Fasel, R./Patthey, L./Gröning, P./Gröning, O.

Mapping the Electronic Surface Potential of Nanostructured Surfaces, Nanostructures at surfaces, Acona. 09-20 thru 25 ◆

Treier, M.

Lateral aromatic interactions: A novel design feature for two dimensional supramolecular architectures;
Jahrestagung Schweizerische Arbeitsgemeinschaft Oberflächen und Grenzflächen (SAOG), Fribourg, 01-23 ◆

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Aromatic coupling motifs for two-dimensional supramolecular architectures; Symposium on Surface Science 3S'09, St. Moritz, 03-09 ○

Widmer, R.

Complementarity of Scanning Probe Techniques and X-ray Photoelectron Spectroscopy,

Journées des Surfaces et Interface, Nancy (F), 01-28 ○ ●

Structural and Electronic Properties of the (100) Y-AlNiCo Approximant Surface and the (001) m-Al4Mn CMA Surface, Surfaces of Complex Metallic Alloys, Fritz-Haber Institut der Max-Planck Gesellschaft Berlin (D), 04-24 ○

Surface science investigations of intermetallic C Pd-Ga catalysts; 9th Palladium Day at Vienna University of Technology (A), 10-19 ○

Thin Films and Photovoltaics

Buecheler, S./Chati, R./Perrenoud, J./Tiware, A.N.

Low temperature processed CdTe thin film solar cells with reduced CdS thickness,

E-MRS Spring Meeting 2009, Strasbourg, France, 06-8 thru 12 ◆

Buecheler, S./Corica, D./Chirila, A./Güttler, A./Pianezzi, R./Verma, R. et al.

Influence of the absorber composition in CuIn1-xGaxSe2 solar cells with sprayed In2S3 buffer layers on the dominant recombination mechanisms, 24th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 09-21 thru 25 ◆

Buecheler, S./Sauaia, R.L./Corica, D./Fella, C./Verma, R./Chirila, A. et al.

Investigation of the deposition process of ultrasonically sprayed In2S3 buffer layers for Cu(In,Ga)Se2 thin film solar cells, 24th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 09-21 thru 25 ◆

Chirila, A./Guettler, D./Seyrling, S./Buecheler, S./Tiware, A. Cu(In,Ga)Se2 solar cells grown by a three-stage-process with different evaporation rates, 34th IEEE Photovoltaic Specialists Conference, Philadelphia, USA, 06-7 thru 12 ◆

High growth rate of Cu(In,Ga)Se2 solar cells, E-MRS Spring Meeting 2009, Strasbourg, France, 06-8 thru 12 ○

Hüpkens, J./Pust, S.E./Böttler, W./Gordijn, A./Wyrsh, N./Güttler, D. et al.

Light Scattering and Trapping in different Thin Film Photovoltaic devices, 24th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 09-21 thru 25 ○

Perrenoud, J./Buecheler, S./Tiware, A.N.

Flexible CdTe solar cells with high photovoltaic conversion efficiency, 34th IEEE Photovoltaic Specialists Conference, Philadelphia, USA, 06-7 thru 12 ○

Flexible CdTe solar cells and modules: challenges and prospects, SPIE on Thin Film Solar Technology, San Diego, US, 08-2 thru 6 ○ ●

Seyrling, S./Bücheler, S./Chirila, A./Perrenoud, J./Verma, R./Wenger, S. et al.

Towards the development of high efficiency multijunction thin film solar cells, 24th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 09-21 thru 25 ◆

Seyrling, S./Buecheler, S./Chirila, A./Wenger, S./Grätzel, M./Tiware, A.N.

Development of multijunction thin film solar cells, Proc. 34th IEEE Photovoltaic Specialists Conference, Philadelphia, USA, 06-7 thru 12 ◆

Seyrling, S./Wenger, S./Grätzel, M./Tiware, A.N.

Analysis of optical and electrical losses in Cu(In,Ga)Se2/dye sensitized cell tandem solar cells, E-MRS Spring Meeting 2009, Strasbourg, France, 06-8 thru 12 ◆

Tiware, A. N.

High Efficiency Flexible Solar Cells Based on CIGS and CdTe Thin Films, Printed Electronics Europe 2009: Photovoltaics beyond conventional Silicon, Dresden, Germany, 04-7 thru 8 ○ ●

Flexible CIGS and CdTe thin film solar cells,

Institute of Physics Conference, London, UK., 09-16 ○ ●

Verma, R./Buecheler, S./Corica, D./Chirila, A./Seyrling, S./Perrenoud, J. et al.

Alternatives in CIGS Solar Cells: Research and development for further advancement, 18th International Photovoltaic Science and Engineering Conference and Exhibition, Kolkata, India, 01-18 thru 23 ○ ●

Verma, R./Perrenoud, J./Chirila, A./Buecheler, S./Seyrling, S./Güttler, D. et al.

Cu(In,Ga)Se2 Thin Film Solar Cells With In2S3 Buffer layer grown by different evaporation methods, 18th International Photovoltaic Science and Engineering Conference and Exhibition, Kolkata, India, 01-18 thru 23 ◆

Verma, R./Perrenoud, J./Chirila, A./Buecheler, S./Seyrling, S./Güttler, D. et al.

Flexible Cu(In,Ga)Se2 solar cells with In2S3 buffer layer, 24th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 09-21 thru 25 ○

Meier, U.

[Haben kohlenstofffaserverstärkte Kunststoffe im Brückenbau eine Zukunft?](#), 19. Dresdner Brückenbausymposium, Technische Universität Dresden, Germany, 03-10 ○ ●

[CFRP Tendons for Cable Supported Bridges](#), [Civil Engineering Forum](#), JEC Composites Show, Porte de Versailles Hall 1, Paris, France, 03-25 ○ ●

[Faserverbundwerkstoffe im Bauwesen](#),

17. Symposium Verbundwerkstoffe und Werkstoffverbunde, DGM Deutsche Gesellschaft für Materialkunde, Universität Bayreuth, Germany, 04-02 ○ ●

[Prospective View of Adaptive Materials in Civil Structures](#), [Concrete Structures Section at the Committee for Civil Engineering of the Polish Academy of Sciences \(CSS CCEPAS\)](#), TUL Technical University of Lodz, Poland, 04-24 ○ ●

[Langzeitverfahren bei der Anwendung verklebter, kohlenstofffaserverstärkter Kunststoffe \(CFK\) für aufgehängte Tragwerke](#), Swiss Bonding, Fachhochschule Rapperswil, 05-13 ○ ●

[SHMII-4 Structural Health Monitoring of Intelligent Infrastructure](#), ETH Zurich, 07-22 thru 24 ■

[Seismic Retrofit with Pre-Tensioned Pin Loaded CFRP Tendons](#), ICCE-17, Honolulu, Hawaii, USA, 07-30 ○ ●

[CFRP Tendons in Civil Engineering and Architecture](#), SCI-Arc Southern California Institute of Architecture, Los Angeles, USA, 08-05 ○ ●

[Basics about Carbon Fiber Reinforced Polymers \(CFRP\) for Bridge Engineers](#), 2nd Asia Bridge Summit, Merisis, Radisson Hotel Shanghai Hong Quan, Shanghai, China, 09-24 ○ ●

[Carbon Fiber Reinforced Polymers \(CFRP\) Improve Quality and Efficiency of Bridge Rehabilitation](#), 2nd Asia Bridge Summit, Merisis, Radisson Hotel Shanghai Hong Quan, Shanghai, China, 09-25 ○ ●

[Carbon Fiber Reinforced Polymer Cables: Why? Why Not? What If?](#), 11th Arab Structural Engineering Conference (ASEC), King Fahd University of Petroleum & Minerals, KFUPM, Dhahran, Saudi Arabia, 10-25 ○ ●

[CFRP Tendons in Civil Engineering and Architecture](#), SKZ Süddeutsches Kunststoffzentrum und Bauhaus Universität Weimar, Weimar, Germany, 12-02 ○ ●

[Basics about Carbon Fiber Reinforced Polymers \(CFRP\) and Its Application for Efficient Bridge Rehabilitation](#), Research Center Korea Expressway Corporation, Dongtan-myeon, Hwasung-si, Gyeonggi-do, Korea, 12-08 ○ ●

[Carbon Fiber Reinforced Polymer Cables: Why? Why Not? What If?](#), Research Center Korea Expressway Corporation, Dongtan-myeon, Hwasung-si, Gyeonggi-do, Korea, 12-08 ○ ●

[Bowstring-Arch Bridge Made of CFRP, GFRP and Glulam](#), Second Asia-Pacific Conference on FRP in Structures, Sheraton Walkerhill, Seoul, Korea, 12-11 ○ ●

Building Science and Technology

Abuku, M./Janssen, J./Poesen J./Roels S.

[Towards a reliable prediction of moisture response of walls to winddriven rain](#), 4th IBPC, Istanbul, Turkey, 06-15 thru 18 ○

Blocken, B./Abuku, M./Roels, S./Carmeliet, J.

[Wind-driven rain on buildings: some perspectives](#), 5th European and African Conf. on Wind Engineering, Florence, Italy., 07-19 thru 23 ○ ●

Blocken, B./Derome, D./Carmeliet, J.

[Overview of research on rain water runoff from building facades](#), 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-06 thru 08 ○ ●

Blocken, B./Dezsö, G./Van Beeck, J./Carmeliet, J.

[Intercomparison of calculations models for wind-driven rain on buildings](#), 11th American Conf. on Wind Engineering, San Juan, Puerto Rico, 06-22 thru 26 ○ ●

Blocken, B./Stathopoulos, T./Carmeliet, J.

[CFD applications in urban aerodynamics: influence of the wind-blocking effect](#), 4th Int. Building Physics Conf., Istanbul, Turkey, 06-15 thru 18 ○ ●

Blocken, B./Stathopoulos, T./Carmeliet, J./Hensen, J.

[Application of CFD in building performance simulation for the outdoor environment](#), IBPSA Building Simulation Conf., Glasgow, Scotland, 07-27 thru 30 ○ ●

Carmeliet, J./Derome, D.

[Stochastic design method to determine the moisture buffering of walls](#), 12th Canadian Conference on Building Science and Technology, Montreal Quebec, Canada, 05-06 thru 08 ○ ●

Carmeliet, J./Guyer, R. A./Derome, D.

[Nonlinear elastic and moisture dependent behavior of wood: a first attempt to an adequate thermomechanical modeling](#), 6th Plant Biomechanics Conf., Cayenne, GF, 12 -16 thru 21 ○ ●

Carmeliet, J./Mertens, S./Van Tomme, J.

[Quasi-static nonlinear hysteretic properties of disordered materials](#), XIV Int.l Conf. on Nonlinear Elasticity in Materials, Lisbon, Portugal, 06-1 thru 5 ○ ●

Defraeye, T./Blocken, B./Carmeliet, J.

[CFD analysis of the convective heat transfer coefficient at the facades of a cubic building](#), 4th Int. Building Physics Conf., Istanbul, Turkey, 06-15 thru 18 ○ ●

and 7th Int. Conf. on Urban Climate,

Yokohama, Japan, 06-29 thru 07-3 ○ ●

[Computational modelling of convective heat and moisture transfer at exterior building surfaces](#), 7th Int. Conf. on Urban Climate, Yokohama, Japan, 06-29 thru 07-3 ○ ●

Derome, D./Carmeliet, J./Guyer, R. A.

[Nonlinear moisture dependent behavior of wood: a first attempt for in-situ 3D microscopic evaluation](#), XIV Int. Conf. on Nonlinear Elasticity in Materials, Lisbon, Portugal, 06-01 thru 05 ○ ●

Derome, D./Carmeliet, J./Karagiozis, A.

[Evaluation de l'importance de forts gradients hygrothermiques vers l'intérieur sur le comportement d'assemblages de mur](#), IX^{ème} Colloque Interuniversitaire Franco Québécois, Lille, France, 05-18 thru 20 ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Derome, D./Zillig, W./Carmeliet, J.

Multiscale modeling for moisture transport in wood, 6th Plant Biomechanics Conference, Cayenne, GF, 11 -16 thru 21 ○ ●

Dorer, V./Weber, A./Fernandes, V./Kazempoor, P./Corrales Ciganda, J.

Energy and CO₂ emission performance of building integrated polygeneration systems Heat Powered Cycles Conference 2009, Berlin, 09- 7 thru 9 ○

Ghazi Wakili, K.

40th Intern. Congress on Heating, Refrigeration and Air-Conditioning, 12-03 ○ ●

Griffa, M./Carmeliet, J./Johnson, P. A.

The Lattice Solid Model for simulating nonlinear dynamics of sheared granular layer», XIV Int. Conf.on Nonlinear Elasticity in Materials, Lisbon, Portugal, 06-1 thru 5 ○ ●

Griffa, M./Scalerandi, M./Johnson, P. A.

Computational Time Reversal Imaging: Addressing the Medium Mismatch Bottleneck, XIV Int. Conf. on Nonlinear Elasticity in Materials, Lisbon, Portugal, 06-1 thru 5 ■ ○

Gyalistras et al./Frank, T./Carl, S./Dorer, V./Lehmann, B./Wirth, K.

Urban Futures: the Challenge of Sustainability; Sustainable building and construction AGS Annual Meeting 2009, ETHZ, 01-26 thru 29 ◆

Heiselberg, P./Artmann, N./Jensen, R.L./Manz, H.

Air Distribution in Rooms, Roomvent 2009, Busan, South Korea, 05-24 thru 27 ○

Karagiozis, A./Derome, D./Carmeliet, J.

Solar driven moisture transport – Myth or Reality, 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-6 thru 8 ○ ●

Koebel, M./Manz, H.

Development of vacuum glazing with advanced thermal properties, CISBAT 2009, EPFL Lausanne, 09-2 thru 3 ○

Ludwig, C.

Glasfaserverstärkte Kunststoffe unter hoher thermischer und mechanischer Beanspruchung, Kunststoffe im Hochbau Swiss Engineering STV, Zürich, 07-18 ○ + ●

Large-scale testing for decomposition model verification and validation, 13th ICSGE, Ain Shams University Kairo, 12-28 ○ ●

Moonen, P./Sluys, L. J./Carmeliet, J.

A continuous-discontinuous approach to simulate failure of quasi-brittle materials, Complas X, Barcelona, Spain, 09-2 thru 4 ○

Saneinejad, S./Derome, D.

Experimental and modeling work on insulated cavity in wood-frame walls with vertical temperature gradient, 4th IBPC, Istanbul, Turkey, 06-15 thru 18 ○

Thermal conditions within the insulation cavity of wood-frame walls, 12th CCBST, Montreal, Canada, 05-6 thru 8 ○

Tablada de la Torre, A./Saelens, D./Carmeliet, J./Baelmans, M.

Investigation on airflow and heat transfer of a glazing façade with external louvers, 4th Int. Building Physics Conf., Istanbul, Turkey, 06-15 thru 18 ○ ●

Weber, R.

Heat storage with Sodium Hydroxide, Cisbat 2009, EPFL Lausanne, 09-02 thru 03 ○

Zimmermann, M.

Energy Strategies for a Sustainable Future, Helsinki University of Technology, 01-29 ○ ●

and Oulu University, Finland, 01-30 ○ ●

Nachhaltige, energieeffiziente Renovation mit Modulen,

Fachtagung «Bauen mit Holz», Immomesse St. Gallen, 03-20 ○ ●

Forum Chriesbach – A sustainable building concept for the 2000

Watt Society, Tel-Aviv University, Israel, 03-24 ○ ●

Energieeffiziente Erneuerung von Altbauten, Fachtagung «3D-Geometrie-Erfassung», FHNW Hochschule für Architektur, Bau und Geomatik, Muttenez, 04-21 ■ ○ ●

Prefabricated Systems for Low Energy Renovation of Residential Buildings, IEA ECBCS Technical Day, Maastricht, NL, 06-10 ○ ●

Retrofit Advisor – Entscheidungshilfe für die nachhaltige

Bauerneuerung, Ökosan 09, Int. Symposium für hochwertige energetische Sanierung von grossvolumigen Gebäuden, Weiz, Austria, 10-7 thru 9 ○ ●

Overview of ECBCS Annex 50 «Prefab-Retrofit»,

Substantial Energy Saving in Exstiting Buidings NOW, IEA ECBCS Annex 50 Conf., Antwerp, Belgium, 10-14 ■ ○ ●

Best practice Retrofit Programmes,

Future Green Buildings Conf., BRE, Watford, UK, 11-18 ○ ●

Prefabricated Systems for Low Energy Renovation of Residential

Buildings, IEA ECBCS Technical Day, Oxford, UK, 11-18 ○ ●

Center for Synergetic Structures

Breuer, J./Luchsinger, R.

Inflatable kites with Tensairity, Structural Membranes2009, Stuttgart, Germany, 10-05 thru 07 ○

Galliot, C./Luchsinger, R.

Non-linear properties of coated fabrics used in Tensairity structures, ICCM17, Edingburgh, UK, 07-27 thru 31 ○

Biaxial Tensile Testing and Non-Linear Modelling of PVC-Coated

Polyester Fabrics for use in Tensairity Girders, Structural Membranes2009, Stuttgart, Germany, 10-05 thru 07 ○

Gauthier, L./Wever, T./Luchsinger R.

Study of the buckling behavior of compression elements in Tensairity, Structural Membranes2009, Stuttgart, Germany, 10-05 thru 07 ○

Luchsinger, R.

Die Leichtbaustruktur Tensairity – ein neuer Markt für Holz?, Holz Innovativ, Rosenheim, Deutschland, 01-04 thru 02 ○ ●

Use the air: The new light-weight structure Tensairity,

Vrije Universiteit Brussels, Belgium, 03-03 ○ ●

Recent progress in the R&D of Tensairity, Structural Membranes 2009, Stuttgart, Germany. (plenary lecture), 10-05 thru 07 ■ ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

sLuchsinger, R.

Use the air, Ailab, Universität Zürich, Zürich., 11-17 ○ ●

Softness, Stiffness, Evolution and Tensairity,

Biomimetics in Architecture, Stuttgart, Germany, 11-27 ○ ●

Luchsinger, R./Teutsch U.

An analytical model for Tensairity girders,

IASS 2009, Valencia, Spain, 09-28 thru 11-02 ○

Rampf, M./Luchsinger, R./Speck, O./Speck, Th./Mazza, E.

Bioinspired self repairing membranes for pneumatic structures, Structural Membranes 2009, Stuttgart, Germany, 10-05 thru 07 ○

Concrete / Construction Chemistry

Akers, S./Kaufmann, J./Lübben, J./Schwitter, E.

Reinforcement of concrete and shotcrete using bi-component polyolefin fibres.

Concrete Solutions 09, Sydney, Australia, 09-17 thru 19 ○

Derome, D./Carmeliet, J./Trtik P./Koebel, M./Abuku, M.

3D imaging of dynamic processes in early-age cementitious materials using large-scale research facilities,

JUM@P 09, PSI user meeting/ Villigen, 10-13 ◆

Derome, D./Trtik, P./Koebel, M./Carmeliet, J.

Nonlinear moisture dependent behavior of wood: a first attempt for in-situ 3D microscopic evaluation, 14th Intl conf on nonlinear elasticity in materials, Lisbon, Portugal, 06-3 ○

Dilnesa, B./Lothenbach, B.

X-RAY ABSORPTION SPECTROSCOPIC INVESTIGATION OF IRON PHASES. The Fred Glasser Cement Science Symposium, Kings College Conference Centre, University of Aberdeen, Aberdeen, Scotland, UK, 06-17 thru 19 ◆

Eberhardt, A. B./Kaufmann, J. P./Seiler, C./Figli, R./Stark, J

Untersuchungen zur Auslaugung schwindreduzierender Zusatzmittel und Auswirkungen auf das Schwindverhalten von Mörteln. 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Herwegh, M./Mettier, R./Zurbriggen, R./Wetzel, A./Winnefeld, F./Kaufmann, J.

Critical stress concentrations in tile adhesive mortars: a numerical modelling approach. 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Kunther, W./Lothenbach, B./Scrivener, K.

Influence of carbonate in sulfate environments. Concrete in aggressive aqueous environments – Performance, Testing, and Modeling, Toulouse, France, 06-3 thru 5 ◆

Influence of Different Sulphate Environments on the Properties of Ordinary Portland Cement,

MC-RTN Final Conference, Villars-sur Ollon, 09-01 thru 03 ○

and 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ◆

Leemann, A., Lothenbach, B./Hoffmann, C./Bischof, S./Lunk, P.

Concrete corrosion in a wastewater treatment plant. RILEM Conference «Concrete in aggressive aqueous environments». Toulouse, France., 06-3 thru 4 ○

Leemann, A./Hoffmann, C.

Béton de recyclage – expériences actuelles et résultats récents de la recherche. Journée d'information Holcim. EPF Lausanne, 09-02 ○ ●

Recyclingbeton – aktuelle Erfahrungen und neuste technische Erkenntnisse. Holcim Betontag. ETH Zürich., 09-09 ○ ●

Lothenbach, B.

Thermodynamic Modelling: current state of the art.

The Fred Glasser Cement Science Symposium, Kings College Conference Centre, University of Aberdeen, Aberdeen, Scotland, UK, 06-17 thru 19 ○ ●

Thermodynamic models for cement hydration.

20th ACBM/NIST Computer Modeling Workshop, NIST, Gaithersburg, USA, 08-12 thru 14 ○ ●

Lothenbach, B./Schmidt, T.

Influence of limestone on sulfate ingress. Concrete in aggressive aqueous environments – Performance, Testing, and Modeling, Toulouse, France, 06-3 thru 5 ○

Lothenbach, B./Wieland, E./Figli, R./Rentsch, D. Schwyn, B.

Hydration of blended cements. International Summit on Cement Hydration Kinetics, Laval University, Quebec, Canada, 07-27 thru 29 ○ ●

Lothenbach, B./Wieland, E./Figli, R./Rentsch, D./Schwyn, B.

Hydration of blended cements. 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Lura, P.

Intellectual property rights and patenting – from a patenting officer's point of view NANOCEM – Fundamental understanding of cementitious materials for improved chemical, physical, and aesthetic performance Marie Curie Training Course 6: Innovation of cementitious materials Bergamo, Italy, 03-30 thru 04-01 ○ ●

Robert L'Hermite Lecture: «Volumetric measurements of autogenous deformation and coefficient of thermal expansion».

RILEM 63rd ANNUAL WEEK 2009, RILEM Technical Day, Haifa, Israel, 09-10 ○ ●

Lura, P./Fontana, P./Di Bella, C.

Mechanisms of plastic shrinkage in concrete.

CODICE Workshop, Italcementi, Bergamo, 09-28 thru 29 ○

Lura, P./Gleich, B.

International PhD Course «Reducing Early-age Cracking of Concrete Today (REACCT)», 07-1 thru 3 ■ ○

Marone, F./Hintermüller, C./Geus, R./Muench, B./Trtik, P./Stampanoni, M.

Towards Real-time Tomography: Fast Reconstruction Algorithms, Interdisciplinary Symposium on 3D Microscopy 2009, Interlaken, 07-12 thru 16 ◆

Muench, B./Trtik, P.

2D versus 3D analyses of pore size distributions (PSD's) of hardened cement pastes and of model porous microstructures based on FIB-nanotomography, Interdisciplinary Symposium on 3D Microscopy 2009/Interlaken, 07-12 thru 16 ◆

Pelletier, L./Winnefeld, F./Lothenbach, B.

Hydration mechanism of the ternary system Portland cement – calcium sulphotoaluminate clinker – anhydrite.

17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Sant, G./Lura, P./Weiss, J.

[The influence of temperature on unrestrained volume changes in cementitious materials](#). 2nd Int. RILEM Workshop on Concrete Durability and Service Life Planning (ConcreteLife'09), Haifa, Israel, 09-07 thru 09 ○

Schmidt, T./Leemann, A./Gallucci, E./Scrivener, K. L.

[Investigations of external sulfate attack on limestone blended Portland cements](#). Concrete in aggressive aqueous environments – Performance, Testing, and Modeling, Toulouse, France, 06-3 thru 5

Schmidt, T./Leemann, A./Gallucci, E./Scrivener, K. L.

[Microstructural investigations of iron sulfide degradation in concrete](#). 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Trtik P./Dual J./Muench B./Holzer L.

[Nanoscale surface roughness of hardened cement pastes \(HCP\): «Virtual» tomographic experiments based on FIB-nanotomography](#), NICOM 3, Prague, 06-2 ◆

Trtik P./Muench B./Lura P.

[Considerations about statistical nanoindentation on model materials and hardened cement pastes based on virtual experiments](#), NICOM 3, Prague, 06-2 ◆

Trtik, P./Muench, B./Lothenbach, B./Lura, P./Marone, F./Mokso, R. et al.

[3D imaging of cement particles and cement hydration using X-ray nanotomography – pilot investigation](#), Interdisciplinary Symposium on 3D Microscopy 2009, Interlaken, 07-13 ○

Trtik, P./Muench, B./Lothenbach, B./Marone, F./McDonald, S./Mokso, R. et al.

[3D imaging of dynamic processes in early-age cementitious materials using large-scale research facilities](#), JUM@P 09, PSI user meeting, Villigen, 10-13 ○ ●

Trtik, P./Muench, B./Lura, P./Marone, F./Mokso, R./Stampanoni, M.

[Hydration process of Ferric-calcium Aluminate particles Observed by X-ray Nanotomography](#), EUROMAT 2009, Glasgow, 09-09 ○

Winnefeld, F./Gleich, B.

[18th Full Meeting of the Nanocem Consortium](#), 10-27 thru 29 ■

Winnefeld, F./Kaufmann, J./Harzer, S./Herwegh, M./Wetzel, A./Zurbruggen, R.

[Hydration and moisture gradients of tile adhesives](#). 17. Int. Baustofftagung (IBAUSIL), Weimar, Germany, 09-23 thru 26 ○

Winnefeld, F./Lothenbach, B.

[Calcium sulfoaluminate cements – another alternative to Portland cement](#), Workshop Rilem Technical Committee Alkali-activated Materials TC-AAM, Kiev, Ukraine., 05-28 ○

[Thermodynamic modelling of the hydration of calcium sulfoaluminate cements](#). The Fred Glasser Cement Science

Symposium, Kings College Conf. Centre, University of Aberdeen, Scotland, 06-17 thru 19 ○ ●

[and Int.Summit on Cement Hydration Kinetics](#),

Laval University, Quebec, Canada, 07-27 thru 29 ○ ●

Winnefeld, F./Zingg, A./Holzer, L./Pakusch, J./Becker, S.

[Ninth ACI Internatioanl Conference on Superplasticizers and Other Chemical Admixtures in Concrete](#), Seville, Spain, 10-12 thru 14 ○

Mechanical Systems Engineering

Terrasi, G. P./Brunner, A. J./Vallée, T./Tannert, T.

[Überwachung und Beurteilung der Schädigungsentwicklung geklebter Verbindungen unter Zugbelastung](#), Swissbonding 09, 11. bis 13. Mai 09, Rapperswil, 05-13 ○ ●

Brunner, A. J.

[SE-Überwachung von Zugversuchen an Holzwerkstoffprüfkörpern](#), 47. Sitzung Fachausschuss Schallemissionsprüfverfahren der Deutschen Gesellschaft für Zerstörungsfreie Prüfung e.V., Berlin, 04-23 ○

Brunner, A. J./Niemz, P./Walter, O.

[Schallemissionsanalyse von Zugversuchen an Standardprüfkörpern aus unterschiedlichen Holzwerkstoffen](#), Deutsche Gesellschaft für Zerstörungsfreie Prüfungen E.V., 17. Kolloquium Schallemission, 24.-25. September, Bad Schandau, Deutschland, 09-24 ○

Brunner, A. J./Paris, I./Pinter, G.

[Fatigue Propagation Test Development for Polymer-Matrix Fibre-Reinforced Laminates](#), 12th International Conference on Fracture, 12.-17. Juli, Ottawa, Kanada, 07-15 ○

Brunner, A. J./Terrasi, G.P./Cartié, D. D. R.

[Fatigue testing of Z-pin Reinforced Carbon-Fibre Laminates](#), 12th International Conference on Fracture, 12.-17. Juli, Ottawa, Kanada (Keynote), 07-15 ○ ●

Brunner, A. J./Terrasi, G.P./Tannert, T./Vallée, T.

[Schallemissionsüberwachung von Zugversuchen an zweiseitig überlappenden Klebverbindungen zwischen GFK-Profilen bzw. Holz-Latten](#), Deutsche Gesellschaft für Zerstörungsfreie Prüfungen E.V., 17. Kolloquium Schallemission, 24.-25. September, Bad Schandau, Deutschland, 09-24 ○

Chakraborty, A. K./, Adikari, S. N./Plyhm, T./Necola, A./Barbezat, M./Terrasi, G. P.

[Fibre reinforced epoxy composites modified with carbon nanotube](#), 4th International Conference on Carbon Based Nanocomposites, September 20-23, 2009, Technical University of Hamburg – Harburg, Germany, 09-20 ○

Dürager, Ch./Brunner, A.J./Barbezat, M.

[Health Monitoring of Welded Aluminum Beams](#), 4th International Conference on Structural Health Monitoring of Intelligent Infrastructure, ETH, Zürich, 07-22 ○

Koller, R.

[1. Swiss Aeronautic Symposium](#), ZHAW Winterthur, 06-10 ○ ●

Kovacs, G.

[Field Induced Deformation of Hyper Elastic Structures based on Dielectric Elastomers](#), MRS Spring Meeting, San Francisco, USA, 04-13 ○ + ●

Kovacs, G./Düring, L.

[Contractive tension force stack actuator based on soft dielectric EAP](#), SPIE-EAPAD Conference, San Diego, USA, 03-12 ○ ●

Plyhm, T./Chakraborty, A. K./Barbezat, M./Necola, A./Rees, M./Terrasi, G. P.

[Mechanical Properties of CNT- Epoxy Nanocomposites: A Systematic Investigation of CNT Dispersion](#), NanoEurope Symposium, Rapperswil, Switzerland 25 – 26 November, 2009, 11-25 ◆

Terrasi, G. P./Brönnimann, R.

Strain Monitoring by Resistance Measurement of Carbon Fiber Prestressing Tendons in Filigree High Performance Concrete Elements, 4th International Conference on Structural Health Monitoring of Intelligent Infrastructure, ETH, Zürich, 07-23 ○

Mechanics for Modelling and Simulation

Bergamini, A./Hasse, A.

ICAST 09, Hongkong, 10-19 thru 23 ◆ ○

Campanile, F. L.

Das Rad neu erfinden. Die Adaptronik als entwurfphilosophische Revolution, TU Braunschweig, Fakultät für Maschinenbau, Braunschweig, Deutschland, 10-02 ○ ●

Holdsworth, S. R.

Symposium on Advanced Power Plant Heat Resistant Steels & Alloys, Shanghai, CN, 10-21 thru 24 ○ ●

Swedish-Swiss Innovation and Cleantech Forum,

Stockholm, SE, 10-29 thru 30 ○

Holdsworth, S. R./Binda, L.

EPRI Specialist Workshop on Creep-Fatigue Interaction, Ecole des Mines, Paris FR, 10-05 thru 07 ○ ●

Holdsworth, S. R./Radosavljevic, M./Binda, L./Mazza, E.

ECCC-Conference on Creep&Fracture in High Temperature Components: Design&Life Assessment Issues, Duebendorf, 04-21 thru 23 ■ ◆ ○

Jähne, R.

ESOMAT 09, Prag, CZ, 09-07 thru 11 ◆

Mazza, E.

Ecole des Mines Paris, Paristech, Centre des Matériau», Paris, Frankreich, 02-20 ○ ●

Swiss Texnet, Innovation Day 2009,

Empa Academy, Keynote Lecture, Dübendorf, Schweiz, 09-01 ○ ●

Third Switzerland-Japan Workshop on Biomechanics (SJB 2009),

Engelberg, Schweiz, 09-01 thru 03 ○ ●

AES-ATEMA 2009, International Conference, Keynote lecture,

Hamburg, Deutschland, 09-04 thru 06 ○ ●

Thwapih, G.

ASME 09, Oxnard, USA, 09-20 thru 25 ○

Road Engineering/Sealing Components

Canestrari, F./Piber H./Ferrotti, G./Lu, X./Millien, A./Partl, M. N. et al. RILEM Interlaboratory Test on Interlayer Bonding of Asphalt Pavements, 7th International RILEM Symposium ATCBM09 on Advanced Testing and Characterization of Bituminous Materials, Rhodes, Greece, 5-29 ○ ●

Hugenschmidt, J.

Collapsing sports halls and GPR for non-destructive testing, Geophysical Colloquium/ETH Zurich, 10-16 ○ ●

J. Hugenschmidt/A. Kalogeropoulos, F. Soldovieri, G. Prisco

Current trends in non-destructive testing of reinforced concrete structures using GPR, 4th International Conference on Structural Health Monitoring of Intelligent Infrastructure, Zürich, 07-22 ○ ●

Kim, H./Partl, M. N./Wagoner, M. P./Buttlar, W. G

Size Effect Investigation on Fracturing of Asphalt Concrete Using the Cohesive Softening Discrete Element Model, 7th International RILEM Symposium ATCBM09 on Advanced Testing and Characterization of Bituminous Materials, Rhodes, Greece, 05-28 ○ ●

Kim, H./Partl, M. N.

Stiffness Comparisons of Mastics Asphalt in Different Test Modes, 2nd Workshop on Four Point Bending/University of Minho, Portugal, 09-25 ○ ●

Kim, H./Sokolov, K./Poulikakos, L./Partl, M. N.

Fatigue Evaluation of Carbon FRP-Reinforced Porous Asphalt Using a Model Mobile Load Simulator, 88th Annual Meeting of TRB, Washington D.C., 01-14 ○ ●

Partl, M. N.

Recent Experience with MLS10 and MMLS3 in Switzerland, 88th Annual Meeting of TRB, MLS User Group Workshop, Washington DC, 01-11 ○ ●

Performance Testing of Reinforced Model Asphalt Pavements,

KTYH – Väg-och-Ban-Seminar, Stockholm, 04-3 ○

Overall Assessment of Advanced Testing of Bituminous Materials,

7th International RILEM Symposium ATCBM09 on Advanced Testing and Characterization of Bituminous Materials, Rhodes, Greece, 05-27 ○ ●

Field Evaluation of Pavement Performance Using a Full-Scale

Mobile Load Simulator in Switzerland, 3rd International Conference on Asphalt Materials, Qingdao, China, 08-6 ○ ●

Sustainable Development through Asphalt Recycling in

Switzerland, Int. Workshop ISAP TC APE Asphalt Pavements and Environment, Qingdao, Shandong, China, 08-8 ○ + ●

Asphalt Pavements on Bridges (Focus Concrete Bridges),

KTH, Stockholm, Sweden, 09-01 ○

Advanced Testing and Characterization of Bituminous Materials,

RILEM 63rd Annual Week, Technical Day, Haifa, Israel, 09-10 ○ ●

Aspects of Environmental Sustainability of Road Infrastructure,

VII SUMMER SCHOOL S.I.I.V. on Environmental Quality of Road Infrastructures, Cagliari; Italy, 09-23 ○

Swiss Experience and Research on Flexible Plug Expansion Joints

for Road Bridges, Seminar Silent and Durable Expansion Joints for Roads, TU Delft, Delft, NL, 09-25 ○ ●

Partl, M. N.

Non-Traditional Environmental and Performance Testing of Asphalt Pavements, 13th International Flexible Pavements Conference, Surfers Paradise, Queensland, Australia, 10-13 ○ ●

Current (and Future) Asphalt Research Topics & Strategic Issues @empa & in CH, Workshop Australian Asphalt Reference Research Group ARRg, Surfers Paradise, Queensland, Australia, 10-15 ○ ●

Dauerhafte Längsbelastung von Strassen mit dem Mobilen Load Simulator – Erfahrungen aus der Schweiz, Kolloquium «Methoden zur Bewertung der strukturellen Substanz von Fahrbahnkonstruktionen/KIT Karlsruhe, 11-24 ○ ●

Partl, M. N./Sokolov, K./Kim, H.

Performance of Reinforced Asphalt Model-Structures under Simulated Traffic Loading, RMPD Seminar, Pretoria, SA, 04-03 ○ ●

Piber H./Partl, M. N./Raab, C.

RILEM Interlaboratory Test on Pavement Performance Prediction and Evaluation, 7th International RILEM Symposium ATCBM09 on Advanced Testing and Characterization of Bituminous Materials, Rhodes, Greece, 05-29 ○ ●

Raab, C./Partl M. N.

Laboratory Study on Interlayer Bonding Using Cationic Tack Coats, 7th International RILEM Symposium ATCBM09 on Advanced Testing and Characterization of Bituminous Materials, Rhodes, Greece, 05-27 ○ ●

Long-Term Interlayer Shear Performance of Base and Subbase Layers in Asphalt Pavements, 6th International Conference on Maintenance and Rehabilitation of Pavements and Technological Control Mairepav, Torino, Italy, 07-08 ○ ●

Structural Engineering

Bischoff, R./Meyer, J./Enochsson, O./Feltrin, G./Elfgren, L.

Event-based strain monitoring on a railway bridge with a wireless sensor network, SHMII4 Conference 2009, Zürich, 07-22 thru 24 ○

Boston, C./Weber, F.

Controlled Damping of Cable-Stayed Bridges, PhD Symposium, Dübendorf, 11-19 ○

Czaderski, C.

Vorgespannte CFK-Lamellen mit Gradientenverankerung, S&P Fachtagung, Dübendorf, 11-12 ○

Feltrin, G.

Schwingungen bei Fussgängerbrücken, Tagung Baudynamik im Holzbau, Dübendorf, 03-05 ■ ○

Feltrin, G./Meyer, J./Bischoff, R./Motavalli, M.

Modular Wireless Sensor Network for Long-Term Structural Health Monitoring, SHMII4 Conference 2009, Zürich, 07-22 thru 24 ■ ○

Feltrin, G./Meyer, J./Bischoff, R./Saukh, O.

Information extraction in structural health monitoring with wireless sensor networks, Smart'09, Smart Structures and Materials, Porto PT, 07-13 thru 15 ○ ●

Feltrin, G./Schubert, S./Steiger, R./Gülzow, A./Gsell, D.

Vibration test of a cable stayed timber deck bridge without and with asphalt pavement, EVACES'09, Wrocław, PL, 10-14 thru 16 ○

Ginés, R.

Development of Materials for Friction Based Vibration Control, PhD Symposium, Dübendorf, 11-19 ◆

Hajiloo, H./Pfyl, K./Motavalli, M./Hosseini, A.

Stress-Strain Behaviour of Square RC Columns confined with Pre-Stressed and Non-Pre-Stressed Non-Laminated CFRP Straps, Sydney, AU, 07-13 thru 15 ○

Janke, L.

Higher residual strength of compression loaded concrete members by prestressed confinement, PhD Symposium, Dübendorf, 11-19 ○

Motavalli, M./Czaderski, C./Bergamini, A./Janke, L.

Application of Shape Memory Alloys in Civil Engineering: Past, Present and Future, ICCE/17 Conference 2009, Honolulu, Hawaii US, 07-26 thru 08-01 ○ ●

Pfyl, K.

Beurteilung bestehender Mauerwerksgebäude bezüglich Erdbeben – eine SIA Dokumentation, DACH Tagung 2009: Erdbeben und Mauerwerk, Zürich, 09-10 thru 11 ■ ○

Schubert, S./Steiger, R./Feltrin, G./Gsell, D.

Schwingungsdämpfende Wirkung von Asphaltbeläge bei Holzbrücken, 12. Symposium Bauwerksdynamik und Erschütterungsmessungen, Dübendorf, 06-05 ○

Soudki, K./Schumacher, A./Motavalli, M.

Flexural Strengthening of a Steel Beam with Prestressed CFRP, FRPRCS-9, Sydney, AU, 07-13 thru 15 ○

Weber, B.

Grundlagen der Baudynamik, Tagung Baudynamik im Holzbau, Dübendorf, 03-05 ○

Weber, B./Feltrin, G.

Long-term behavior of tuned mass dampers on two footbridges, EVACES'09, Wrocław, PL, 10-14 thru 16 ○

Weber, F./Boston, C./Feltrin, G.

Controlled Viscous-Friction Damping of Stay Cables with MR Dampers, 07-22 thru 24 ○

Weber, F./Feltrin, G./Motavalli, M./Boston, C.

Cable damping with friction and combined viscous-friction dampers, Smart'09, Smart Structures and Materials, Porto PT, 07-13 thru 15 ○ ●

Wood

Arnold, M.

Density-property relationship TMT, The Fourth European Conference on Wood Modification ECWM4, Stockholm, SE, 04-27 thru 29 ○

Blocken, B./Derome, D./Carmeliet, J.

Overview of research on rain water runoff from building facades, 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-06 thru 08 ○

Brönnimann, R./Widmann, R.

Monitoring a bowstring arch bridge at Empa with novel sensing systems, 4th Int. Conf. on Structural Health Monitoring on Intelligent Infrastructure, Zurich, 07-22 thru 24 ○

Department Civil and Mechanical Engineering

Conferences

Carmeliet, J./Derome, D.

Stochastic design method to determine the moisture buffering of walls, 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-06 thru 08 ○

Carmeliet, J./Guyer, R. A./Derome, D.

Nonlinear elastic and moisture dependent behavior of wood: a first attempt to an adequate thermomechanical modeling, 6th Plant Biomechanics Conf., Cayenne, GF, 11-16 thru 21 ○

Nonlinear moisture dependent behavior of wood: a first attempt for in-situ 3D microscopic evaluation, XIV Int. Conf. on Nonlinear Elasticity in Materials, Lisbon, Portugal, 06-01 thru 05 ○

Derome, D./Carmeliet, J.

Multiscale approaches for modeling of wood, COST action FP0802 Workshop, Wien, A, 05-11 thru 13 ○

Derome, D./Carmeliet, J./Karagiozis, A.

Evaluation de l'importance de forts gradients hygrothermiques vers l'intérieur sur le comportement d'assemblages de mur, IX^{ème} Colloque Interuniversitaire Franco-Québécois, Lille, France, 05-18 thru 20 ○

Derome, D./Zillig, W./Carmeliet, J.

Multi-scale modeling for moisture transport in wood, 6th Plant Biomechanics Conf., Cayenne, GF, 11-16 thru 21 ○

Feltrin, G./Schubert, S./Steiger, R./Gülzow, A./Gsell, D.

Vibration test of a cable stayed timber deck bridge without and with asphalt pavement, Experimental Vibration Analysis for Civil Engineering Structures EVACES'09, Wrocław, Poland, 10-09 ○

Karagiozis, A./Derome, D./Carmeliet, J.

Solar driven moisture transport – Myth or Reality, 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-06 thru 08 ○

Künniger, T.

Nano-Beschichtungen auf Holz im Aussenbereich, Workshop NanoRate, Lebensministerium, Wien, A, 06-29 ○ ●

Lehringer, C./Richter, K./Schwarze, F. W. M. R./Militz, H.

Property improvement on bioincised wood, 4th European Conf. on Wood Modification ECWM4, Stockholm, SE, 04-27 thru 29 ○

Richter, K.

Optimierte Holznutzung – Potenziale der CO₂-Speicherung und CO₂-Substitution, Holz Innovativ 2009, Rosenheim, D, 04-02 ○ ●

LCA – CO₂ in relation to wood based products,

EPF & FEIC General Assembly, Santiago E, 06-26 ○ ●

Richter, K./Bordeanu, N./López-Suevos F./Zimmermann, T.

Performance of cellulose nanofibrils in wood adhesives, Swissbonding 2009 Rapperswil, Rapperswil, 05-12 ○

Richter, K./López-Suevos, F.

Thermal Behavior of Polyurethane Adhesives Bonded to Wood, 2009 Int. Conf. on Wood Adhesives, Lake Tahoe, Nevada, USA, 09-01 thru 03 ○

Sandomeer, M./Steiger, R./Köhler, J.

Cost optimized timber machine grading, COST E53 Conference, Laboratório Nacional de Engenharia Civil (LNEC), Lisbon, Portugal, 10-22 thru 23 ○

Saneinejad, S./Derome, D.

Thermal conditions within the insulation cavity of wood-frame walls, 12th Canadian Conf. on Building Science and Technology, Montreal, Quebec, Canada, 05-06 thru 08 ○

Experimental and modeling work on insulated cavity in

wood-frame walls with vertical temperature gradient, 4th Int. Building Physics Conf., Istanbul Technical University, Turkey, 06-15 thru 19 ○

Schubert, M.

Bioincising – Biotechnologische Verfahren zur Verbesserung von Holzeigenschaften, 27. Osnabrücker Baumpflegetage, Osnabrück, D, 09-01 thru 02 ○

Schwarze, F.W.M.R.

Fungi go classic, 27. Osnabrücker Baumpflegetage, Osnabrück, D, 09-01 thru 02 ○

Enhanced uptake of wood modification agents in “bioincised” wood, IRG/WP 40th Annual Meeting, Beijing, China, 09-25 ○

Steiger, R.

Stabilität – Ein Problem im Holzbau?, Holzbautag 09, Biel, 05-07 ○ ●

Neue Schweizer Baunormenreihe SIA 269 zur Erhaltungsplanung bestehender Tragwerke,

Grazer Holzbau-Fachtagung 09, Graz, A, 09-25 ○ ●

Steiger, R./Gülzow, A.

Validity of bending tests on strip-shaped specimens to derive bending strength and stiffness properties of cross-laminated solid timber (CLT), 42nd CIB-W18 Meeting, Dübendorf, 08-24 thru 27 ■ ○

Steiger, R./Richter, K.

Glued Laminated Timber – Shear Test of Glue Lines, 2009 Int. Conf. on Wood Adhesives, Lake Tahoe, Nevada, USA, 09-01 thru 03 ○

Widmann, R.

Thermally modified hardwood as a structural material: Allocation to European strength classes and relevant grading procedures, 4th European Conf. on Wood Modification ECWM4, SE, 04-27 thru 29 ○

Performance of finger-jointed boards and structural glued-laminated timber beams made of thermally modified beech,

4th European Conference on Wood Modification ECWM4, Stockholm, SE, 04-27 thru 29 ○

Widmann, R./Steiger, R.

Impact loaded structural timber elements made from Swiss grown Norway spruce, 42nd CIB-W18 Meeting, Dübendorf, 08-24 thru 27 ■ ○

Zimmermann, T.

Nanofibrillierte Cellulose aus natürlichen Rohstoffen für die Verstärkung von Polymeren, Wagenführ Holzanatomisches Kolloquium, Dresden, D, 01-30 ○ ●

Nanofibrillated Cellulose Reinforced Fibers,

Wood Biofibre Plastic Conference, Madison, WI, USA, 05-11 thru 13 ○

Department Materials meet Life

Conferences

Advanced Fibers

Amberg, M.

ThGOT 2009, Conference 15/16 September,
Friderichroda, Germany, 09-15 thru 16 ○ ●

Fortunato, G.

Use of nanostructures in fiber development,
Innovations in Textiles 2009, The Royal College of Physicians,
London, 03-18 ○ ●

Mechanical properties and reinforcement of polymeric nanofibers,
Materials Research Society Spring Meeting, San Francisco, 04-15 ○

Gaan, S.

Effect of Ethyl Ester Phosphoramidates on Flame Retardancy and
Burning Behavior of Cotton Cellulose, Fiber Society Conference,
Spring 2009, Shanghai, China, 05-27 thru 29 ○

Guimond, S./Hanselmann, B./Amberg, M./Hegemann D.
Plasma functionalization of textiles for comfort and well-being,
48th Dornbirn Man-made Fibers Congress (Dornbirn-MFC),
Dornbirn, Österreich, 09-17 ○ ●

Plasma Functionalization of Textiles: Specifics and Possibilities,
19th International Symposium on Plasma Chemistry (ISPC),
Bochum, Deutschland, 07-27 ○ ●

Halbeisen, M.

Von der Bionik zur Evolution,
Innovation Day 2009, Dübendorf, 09-01 ○ ●

Optische Effekte durch mikrostrukturierte Faseroberflächen,
48. Chemiefasertagung Dornbirn, Dornbirn, 09-17 ○ ●

Nanotechnologie zur Entwicklung von High-Tech-Textilien,
Empa-Vorlesungsreihe – Naturwissenschaft, Chancen und Risiken
der Nanotechnologie, HSG, St. Gallen, 09-24 ○

Halbeisen, M./Hufenus, R./Zolliker, P./Shi, W.

Optical effects by fiber surface microstructuring,
48th man-made fibers congress 2009, Dornbirn A, 9-16 thru 18 ○

Halbeisen, M./Wick, P.

Nanotechnologie: Weisse Weste oder Schleudertrauma?,
Herbsttagung Schweizerische Fachvereinigung Textilpflege und
Versorgung SFTV, Wattwil, 10-21 ○ ●

Hegemann, D.

Plasmapolymerisation von Kohlenwasserstoff/Reaktivgas-
Mischungen, Plasmatechnologie PT14, Wuppertal, 03-03 ○

Nanostructuring of Textile Surfaces,
ObservatoryNano, Düsseldorf, 03-11 ○ ●

Plasma treatment based surface functionalization of apparel fabrics,
Techtextil-/Avantex-Symposium 2009, Frankfurt/M., 06-16 ○ ●

Determination of Gas Phase and Surface Reactions in Plasma
Polymerization, GEC 2009, Saratoga Springs (USA), 10-22 ○

Funktionale Textilien dank Nanotechnologie,
OTTI, Regensburg, 11-11 thru 12

Hegemann, D./Bertaux, E./Ritter, A./Guimond, S.

Nanostructured Plasma Coatings for Friction Reduction in Textiles,
Viennano 2009, Wien, 03-20 ○

Hegemann, D./Cherenak, K./Heuberger, M.

Conducting textile platform based on novel e-fibers,
Smart Textiles Salon, Gent, 09-25 ○

Hegemann, D./Körner, E./Amberg, M./Heuberger, M.

Ag Release from Textile Surfaces,
Nanosilber Workshop, St.Gallen, 09-03 ○ ●

Hegemann, D./Körner, E./Guimond, S.

PLASMA CHEMICAL AND PHYSICAL INFLUENCES IN PLASMA
POLYMERIZATION, CIP 09, Marseille, 06-25 ○

Heuberger, M.

Molecular Ordering at the Solid-Liquid Interface,
Seminar, MPI für Polymerforschung, Mainz, Mainz, 01-12 ○ ●

Hufenus, R.

Biodegradable bicomponent fibers from renewable sources,
International Conference on Fibrous Materials, Shanghai, 05-27 thru
29 ○

With nanocomposites to functional synthetic fibers,
OTTI, Regensburg, 11-11 thru 12

New ways to advanced polyester fibers,

Polyester & PET Chain, Zürich, 12-15 thru 17 ○ ●

Körner, E./Hegemann, D.

Influence of Ag content and Ag distribution on the Ag release,
Embek1 – 2nd ordinary meeting, Penryn (UK), 09-14 ○

Control of functional plasma polymer growth including silver
nanoparticles, ITFPC2009 – Innovations in Thin Film Processing
and Characterisation, Nancy (F), 11-18 ○

Körner, E./Ritter, A./Rupper, P./Michel, E./Hegemann, D.

Influence of plasma nanocomposite structure on the Ag release,
ISPC 19, International Symposium on Plasma Chemistry, Bochum,
07-31 ○

Design of bioactive Ag-Nanocomposites with a single-step plasma
process, Nanoworkshop 2009, Prag, 09-04 ○

Lübben, J.

Characterisation of synthetic fibers using the atomic force mi-
croscopy, NanoEurope, St. Gallen, 11-25

Reifler, F.

Photokatalytisch aktive Fasern dank Nanopartikeln,
Fachveranstaltung «Polymeric» – Polymerwerkstoffe in ihrem
Lebenszyklus, NTB, Buchs, 03-12 ○ ●

Photokatalytisch aktive Fasern zur Geruchsreduktion,

4. Hohenstein Fachsymposium: «Textile Geruchswelt», Schloss
Hohenstein, D-Bönnigheim, 06-23 ○ ●

Ritter, A.

Silver Textiles – Silver release and Toxicity,
Dornbirn MFC, Dornbirn, 09-17 ○ ●

Rupper, P./Halbeisen, M./Bünter, U.

Mikro- und Nanoanalytik, intertech, Dornbirn, Au, 05-14 thru 16 ◆

Salimova, V.

Studies on the influence of functional groups in phosphoramidate
compounds on thermal decomposition and flame retardant
properties of cellulose, Flame Retardant Polymer Meeting
(FRPM'09), Poznan, Poland, 08-31 thru 09-03 ○

Department Materials meet Life

Conferences

Biomaterials

De Geus, M.

Biologisch abbaubare Biowerkstoffe in der Industrie: Eine aktuelle Übersicht, Tages-Symposium, Biomaterialien – heute und morgen, Empa Akademie, Dübendorf, 12-01 ○ ●

Fairhead, M.

A novel bacterial tyrosinase for biomaterials, Biotechnical functionalisation of renewable polymeric materials, Insel Elba, Italien, 05-18 thru 19 ○ ●

Expression of a novel bacterial tyrosinase in *Escherichia coli*, Biotrans 2009, Bern, 07-05 thru 09 ◆

Follonier, S.

Influence of pressure on the physiology of mcl PHA producing *P. putida* KT2440, ESBP 2009, 5th European Symposium on Biopolymers, Madeira, Portugal, 11-18 thru 20 ○

Follonier, S./Henes, B./Thöny-Meyer, L./Prieto, A./Panke, S./Zinn, M. Influence of pressure on the physiology of mcl-PHA producing *P. putida* KT2440, PhD Symposium, Empa Dübendorf, 11-19 ◆

Gattlen, J./Zinn, M./Mauclaire, L./Eberl, L.

Repeatable biofilm formation in bioreactor, PhD Symposium, Empa Dübendorf, 11-19 ◆

Idaszek, J./Zinn, M./Bruinink, J./Swieszkowski, W.

The effect of degradation in simulated body fluid (SBF) on the mechanical properties of nanostructured calcium silicate/biopolyester composite, PhD Symposium, Empa Dübendorf, 11-19 ◆

Ihssen, J.

Use of nano-sized poly(3-hydroxyoctanoate) granules for either non-specific or targeted immobilization of proteins in biomedical applications, 2nd World Congress of Industrial Biotechnology, Seoul, Südkorea, 04-5 thru 7 ○

Enhancing recombinant expression of bacterial laccases, Biotrans 2009, Bern, Schweiz, 07-05 thru 09 ◆

Ketikidis, P.

Polyhydroxyalkanoate for the study of the Langmuir behaviour, PhD Symposium, Empa Dübendorf, 11-19 ◆

Le Meur, S./Zinn, M./Ren, Q.

Production of polyhydroxyalkanoate (PHA) monomers and investigation of their antibacterial/antifouling potential, PhD Symposium, Empa Dübendorf, 11-19 ◆

Mauclaire, L.

Biofilme, Nano-Cluster Bodensee Seminar: Antimikrobielle Kunststoffe, Dübendorf, 08-25 ○ ●

Testverfahren, Nano-Cluster Bodensee Seminar: Antimikrobielle Kunststoffe, Dübendorf, 08-25 ○ ●

Ren, Q.

Potential use of extracellular medium chain length polyhydroxyalkanoates depolymerase for protein immobilization and surface modification, Biotechnical functionalisation of renewable polymeric materials, Insel Elba, Italien, 05-18 thru 19 ○ ●

Medium-chain-length polyhydroxyalkanoates: From biosynthesis to applications, First International Conference on Recycling and Reuse of Materials (Polymers, Wood, Leather, Water, Glass, Metals, Ceramics, Semi Conductors etc) and their Products ICRM 2009, Kerala, Indien, 07-17 thru 19 ○

Biopolymer polyhydroxyalkanoates as surface material for protein immobilization, narotech – Materials based on renewable resources, Erfurt, Deutschland, 09-09 thru 10 ○

Schmid, M.

Alterung von PHA Biopolymeren, STV-Tagung 2009 an NTB, Buchs, 03-12 ○ ●

Thöny-Meyer, L.

Expression of a novel bacterial tyrosinase in *Escherichia coli*, Annual Conference of the Association for General and Applied Microbiology (VAAM), Ruhr-Universität Bochum, Bochum, DE, 03-09 thru 11 ○

Reflections and thoughts about a woman's scientific career,

Woman-IN-Great-Sciences 2009, Hovs Hallar, Schweden, 03-16 thru 17 ○ ●

Linking Enzymes to (Bio)materials, Center for Molecular Protein Science, Lund University, Schweden, 03-18 ○ ●

Recombinant tyrosinase from *Verrucomicrobium spinosum* for crosslinking of polypeptides and biomolecules, Symbiosis 14th European congress on biotechnology, Barcelona Spanien, 09-13 thru 16 ◆

Bakterien können auch Kunststoff produzieren, Biotechnologie: Wertsteigernde Innovationen für Gesundheit und Ernährung, Produktion und Umweltschutz, Thurgauer Technologieforum, Ermatingen, 10-28 ○ ●

Discovery versus invention – examples from biotechnology, Olten Meeting, Olten, 11-18 ○ ●

Zinn, M.

Reduced endotoxicity of medium-chain-length polyhydroxyalkanoate produced under multiple nutrient limited growth conditions, Cost 868 Meeting in Istanbul, Türkei, 02-19 thru 20 ○ ●

Tailor-made medium-chain-length polyhydroxyalkanoates (PHAs) using multiple-nutrient-limited growth conditions during biosynthesis, 109th General Meeting Philadelphia, USA, 05-17 thru 21 ○

Polyhydroxyalkanoate – A polymer with adjustable properties,

Biomed 2009, Güzelyurt, Cyprus, Turkey, 08-16 thru 19 ■ ○ ●

Biopolyesters from bacteria for medical applications,

Biotechnet Summer School, Basel, 08-30 thru 09-03 ○ ●

Melt-Spun Fibers from polyhydroxyalkanoate and polylactate for medical applications, 22nd European Conference on Biomaterials (ESB2009), Lausanne, 09-07 thru 11 ◆

Tailoring of material properties of polyhydroxyalkanoates during and after synthesis, XI Reunion del grupo especializado de polímeros, Valladolid, Spanien, 09-20 thru 24 ■ ○ ●

Biodegradable bicomponent fibers from renewable resources, 6th International Conference on Textile and Polymer Biotechnology, Ghent, Belgien, 09-23 thru 25 ○ ●

Polyhydroxyalkanoates from the shelf: What are the bottlenecks?, ESBP 2009, 5th European Symposium on Biopolymers, Madeira, Portugal, 11-18 thru 20 ○ ●

Department Materials meet Life

Conferences

Materials-Biology Interactions

Bitar, M./Burguera, E./Tobler, U./Moczulska, M./Kaiser, J. P./Idaszek, J. et al.

Defining Implant Surfaces by elucidating Cell – Surface Interactions, Meet the Expert, Interlaken, 03-19 thru 20 ◆

Bitar, M./Friederici, V./Rota, A./Imgrund, P./Bruinink, A.
The impact on marrow stromal cell focal adhesion and morphological conformation, ESB, Lausanne, 09-07 thru 11 ○

Born, A. K./Bruinink, A./Maniura, K.
Analysis of molecular interactions between focal adhesion proteins talin and vinculin using FRET, 32. Jahrestagung der Deutschen Gesellschaft für Zellbiologie, Konstanz, D, 03-24 thru 27 ◆

and ESF-EMBO Symposium Biological Surfaces and Interfaces, Sant Feliu de Guixols, Spain, 06-27 thru 02 ○ ●

and ESB, Lausanne, 09-07 thru 11 ○

Bradbury, C. R./Lischer, S./Wampfler, B./Ren, Q./Gruner, P./Maniura, K.
Novel antibacterial Hydroxyapatite Coating for Implant Applications, ESB, Lausanne, 09-07 thru 11 ○

Bruinink, A.
The use of CNT as implant material. In vitro effects of SWCNT and MWCNT, EPFL, Lausanne, 05-12 ○ ●

Elucidation of the mechanism of cell-surface interactions enabling knowledge-based medical devices, ASS, Düringen, 07-20 ○ ●

Effects of surface structures on cell behaviour: Elucidation of the mechanism of cell-surface interactions enabling knowledge-based designed medical devices, Schweizerische Gesellschaft für Biomedizinische Technik, Bern, 08-27 thru 28 ○ ●

Bruinink, A./Tobler, U./Hasler, S./Manser, P./Wick, P.
In vitro effects of SWCNT and MWCNT. First steps in elucidating the toxicomechanism, IWEPM Meeting, Kirchberg, AT, 03-7 thru 14 ○ ●

Burguera, E. F./Bitar, M./Bruinink, A.
Invitro methodology to study heterotypic cell-cell competition at implant surfaces, ESB, Lausanne, 09-07 thru 11 ○

Clift, M./Wick, P./Gehr, P./Schins, R. P./Rothen-Ruthishauser, B.
For a healthy environment in a future with nanotechnology, 1st NanoImpactNet Conference, Lausanne, 03-23 thru 27 ◆

Probing the Carcinogenic Potential of Carbon Nanotubes, 18th Annual Congress of the European Respiratory Society, Wien, AT, 09-12 thru 16 ◆

Friederici, V./Imgrund, P./Bitar, M./Bruinink, A.
Micro, submicro -surface structuring of implant material through metal injection moulding of hybrid micro/nano powder mixtures, ESB, Lausanne, 09-07 thru 11 ○

Tayloring of implant surfaces for enhanced cell performance by u-MIM, EuroPM, Copenhagen, DK, 10-12 thru 14 ○

Hirsch, C.
Effects of single-walled carbon nanotubes on mixed neuro-glial cultures from chicken spinal cord and dorsal root ganglia, Health & Environmental Impacts, Nanotoxicology, London, UK, 02-27 ○

A novel comprehensive evaluation platform to assess nanoparticle toxicity in vitro, Swiss Aerosol Group Meeting, Uni Bern, 11-25 ○

Hirsch, C./Tobler, U./Krug, H.F./Wick, P./Weigel, S./Belyanskaya, L.
Effects of single-walled carbon nanotubes on primary mixed neuro-glial cultures from chicken spinal cord and dorsal root ganglia, Health & Environmental Impacts, Nanotoxicology, London, UK, 02-27 ◆

and 13th ETH Conf. on Combustion Generated Nanoparticles, Zürich, 06-22 thru 24 ◆

and ESN, Leipzig, D, 07-11 ◆

Hufenus, R./Lübben, J./Maniura, K./Zinn, M.
Biodegradable bicomponent fibers from renewable resources, The 6th International Conference on Textile and Polymer Biotechnology, Ghent, Belgium, 09-23 thru 25 ◆

Kaiser, J.-P.
Exposure of human lung cells to nanotubes: effects on cell physiology in vitro, Swiss Tissue Culture Society (STCS), Basel, 05-26 ○ ●

Kaiser, J.-P./Mäder, X./Wick, P.
Single walled carbon nanotubes (SWCNT) affect cell adhesion of epithelial cells (A549), ESB/Lausanne, 09-07 thru 11 ◆

Krug, H.
New Materials for Medical Applications and the Toxicology of Nanomaterials, Seminar, NIMS, Tokio, Japan, 02-13 ○ ●

Nanotoxicology: The Health-Related Principles and the Projects at Empa National and International, Seminar, NIHS, Tokio, Japan, 02-20 ○ ●

Impact of Engineered Nanomaterials on Human Health – Nanocare and Beyond, 50. DGPT-Frühjahrstagung, Mainz, D, 03-11 ○ ●

Nanotechnologie und Toxicology in Environment and Health, 3. Symposium Leipzig/Leipzig, D, 03-18 thru 19 ○ ●

Nanopartikel aus der Materialforschung – Risiken für Mensch und Umwelt, 50. Kongress der Deutschen Ges. für Pneumologie und Beatmungsmedizin e.V./Mannheim, D, 03-20 ○ ●

Nanomaterialien und ihr Einsatz im medizinischen Bereich – ohne Nebenwirkungen, SBAO-Fachtagung/Bern, 03-23 ○ ●

Evidence maps – a tool for dealing with Uncertainties, 1st NanoImpactNet Conference, Lausanne, 03-26 ○ ●

Nanomaterials and Health-Related Effects: Possible Use as Chemical Weapons, OPCW, The Hague, NL, 03-31 ○ ●

Aspects of the Sustainability of Nanotechnologies and Production of Nanomaterials, Achema 29. Internationaler Ausstellungskongress für Chemische Technik, Umweltschutz und Biotechnologie, Frankfurt, D, 05-12 ○ ●

Nanomaterialien in Verbraucherprodukten, Fachtagung BDIH, Mannheim, D, 05-13 ○ ●

How engineered nanoparticles enter the cell and change cell biology, Uni Konstanz IRTG 1331, Seminar, Konstanz, D, 05-28 ○ ●

New (Nano)Materials: Applications and Implications: Need for better characterisation of Materials and Standardisation of Methods, KRISS, Seoul, Korea, 08-26 ○ ●

Responsible Use of Nanomaterials: Harmonization of Toxicological Testing, Nano Korea 2009, Seoul, Korea, 08-27 ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Department Materials meet Life

Conferences

Krug, H.

Application of Nanomaterials in Consumer Products: High-Risk or Safe?, Nanotech Europe 2009, Berlin, D, 09-28 ○ ●

ENM and Carcinogenicity,

NanoOSH, Meeting European Project, Berlin, D, 10-27 ○ ●

Sorgfaltspflicht und Aspekte des Labors – Schadensfälle und Vorbeugung,

Schweizerische Normen-Vereinigung, Seminar, Olten, 11-10 ○ ●

Small stuff, big concerns (CNN 2006): how important is sufficient risk assessment for engineered nanomaterials?, Nanotech Business Summit, Geschäftsgipfel, Kairo, EG, 12-4 thru 7 ○ ●

Maniura, K.

Monitoring of cell fate in context with novel materials,

Max-Planck-Institut für biologische Kybernetik, AG Physiologie kognitiver Prozesse, 02-03 ○ ●

Online monitoring of cellular functions in contact with novel nano, microstructured materials, Regenerative Medicine Symposium, University Hospital, Zürich, 02-26 ○ ●

CCMX MatLife,

Technology Aperitif «Materials for the Life Sciences: Information on new Call for Collaborative Research Proposals with Industry», Freiburg, 08-25 ○ ●

(Online) monitoring of cellular function in cells in engineered microenvironments, 2nd Swiss-Japanese Symposium on Bionanotechnology, Aigle, 09-10 thru 11 ○ ●

Steering cellular fate by physical cues- online monitoring of cellular functions. Seminar- Universität Zürich, Dept.

Frauenheilkunde, Klinik für Geburtshilfe, 09-17 ○ ●

Moczulska, M./Tomaszewski, W./Swieszkowski, W./Bruinink, A./Kurzydowski, K. J.

Preliminary studies on degradation of polylactides fibers,

EMRS 2009, Warsaw, Poland, 09-14 thru 19 ◆

Pleskova, M./Rottmar, M./Lischer, S./Maniura, K.

Monitoring of cellular functions in cells in contact with novel (implant)materials, Meet the Expert, Interlaken, 03-19 thru 20 ◆

Rösslein, M.

Why is the calculation of measurement uncertainty so important, Dübendorf, 06-18 ○

Basic principles and procedure for evaluating the measurement uncertainty, Dübendorf, 06-18 ○

Rottmar, M./Born, A.-K./Pleskova, M./Maniura, K.

Osteogenic differentiation of single mesenchymal stem cells in 3D microenvironments, 32. Jahrestagung der Deutschen Gesellschaft für Zellbiologie, Konstanz, D, 03-24 thru 27 ◆

Rottmar, M./Maniura, K.

Osteogenic differentiation and stem cell plasticity at single cell level in 3D microenvironments, 3rd International Symposium Interface Biology of Implants, Rostock, D, 05-13 thru 15 ○

Stem cell plasticity, osteogenic differentiation and the third dimension, ESB, Lausanne, 09-07 thru 11 ○

Rottmar, M./Pleskova, M./Born, A.-K./Maniura, K.

Stem cell plasticity at the single cell level in 3D microenvironments, Bone-Tec, Hannover, D, 10-08 thru 11 ○

Rottmar, M./Pleskova, M./Maniura, K.

Studying the fate of single stem cells and their plasticity in engineered 3D microenvironments,

ESF-EMBO Symposium Biological Surfaces and Interfaces, Sant Feliu de Guixols, Spain, 06-27 thru 02 ◆

Spohn, P./Hirsch, C./Hasler, F./Bruinink, A./Krug, H.F./Wick, P.

For a healthy environment in a future with nanotechnology, 1st NanoImpactNet Conference/Lausanne, 03-23 thru 27 ◆

Thurnherr, T.

Acute & long-term effects of large-scale produced multiwalled carbon nanotubes on human lung cells in vitro, Swiss Aerosol Group Meeting, Uni Bern, 11-25 ○

Thurnherr, T./Hirsch, C./Maniura, K.

Nanoconvention 09, Zürich Oerlikon, 07-06

Thurnherr, T./Manser, P./Diener, L./Wick, P./Krug, H.

New Challenges for the Immune Defense? Effects of Industrially Relevant Multiwalled Carbon Nanotubes on Human Jurkat T cells in Vitro, 2nd ESF, UB European Summer School in Nanomedicine, Lissabon, P, 06-12 thru 16 ◆ ○

Thurnherr, T./Su, D./Diener, L./Weinberg, G./Manser, P./Pfänder, N. et al.

Effects of industrially relevant multiwalled carbon nanotubes on the viability and immune competence of human T lymphocytes in vitro, 6th Key Symposium, Nanomedicine, Stockholm, Sweden, 09-09 thru 11 ◆

Thurnherr, T./Su, D./Kaiser, J.-P./Manser, P./Maeder, X./Wick, P. et al.

In Vitro studies on pulmonary- and immunotoxic effects of industrially relevant multiwalled carbon nanotubes, 13th ETH Conference on Combustion Generated Nanoparticles, Zürich, 06-22 thru 24 ◆

Vogt, C./Toprak, M./Muhammed, M./Feliu, N./Shi, J./Fadeel, B. et al.

Synthesis, characterization and biocompatibility of tuneable super-paramagnetic SiO₂@Fe₃O₄ core-shell nanoparticles, 6th International Key Symposium Nanomedicine, Stockholm, SE, 09-09 thru 11 ◆

Wick, P.

Nano Particles and the Gastrointestinal Tract, 3rd International Symposium Graduate College 1427, Düsseldorf, D, 03-5 thru 6 ○ ●

Assessment of the biological effects of Nanomaterials,

KTH – Royal Institute of Technology, University Center, Stockholm, SE, 03-23 thru 24 ○ ●

Small size – big effects? Nano – Cell Interaction activities at Empa, Seminar at the Institute for Clinical Chemistry, University Hospital Zürich, 05-26 ○ ●

New technologies and protocols for nanoparticles toxicology testing, NanoBio-Europe'09, Grenoble, FR, 06-16 thru 18 ○ ●

Placenta Perfusion System: a Human ex vivo Model System to Study the Maternal – Fetal Barrier Capacity for Nanosized Materials, 13th ETH Conference on Combustion Generated Nanoparticles, Zürich, 06-22 thru 24 ○ ●

Department Materials meet Life

Conferences

Wick, P.

Nanomaterials & Safety Aspects, Technology Aperitif «Materials for the Life Sciences: Information on new Call for Collaborative Research Proposals with Industry», Freiburg, 08-25 ○ ●

Einer sicheren Nanotechnologie den Weg bereiten, Workshop Chancen und Risiken der Nanotechnologie, Technologiezentrum, Köthen, DE, 09-21 ○ ●

«Nano» Textiles: A Hazard Free Opportunity, International Conference on Latest Advances in High-Tech Textiles and Textile-Based Masterials, Ghent, Belgien, 09-23 thru 25 ○ ●

Wick, P./Halbeisen, M.

Nanotechnologie: Weisse Weste oder Schleudertrauma?, SFTV, Wattwil, Schweiz, 10-21 ○ ●

Zinn, M./Hufenus, R./Maniura, K./Weisse, B.

Melt-Spun Fibers rom Polyhydroxyalkanoate And Polylactate for Medical Applications, ESB, Lausanne, 09-07 thru 11 ◆ ○

Protection and Physiology

Bogerd, C. P./Brühwiler, P. A.

The effects of wearing a full – face motorcycle helmet on cognitive performance in a warm environment, and Parameterization of temperature perception of ventilation changes in fullface motorcycle helmets, 13th Int. Conf. of Environmental Ergonomics, Boston, USA, 08-07 ○

Thermal perception of ventilation changes in full-face mtorocycle helmets, 4th European Conference on Protective Clothing, Arnhem, the Netherland, 06-11 ○

Brühwiler, P. A./Barbezat, M./Necola, A./Kohls, D. J./Bunk, O./Schaefer, D. W. et al.

Comparison of Quasistatic to Impact Mechanical Properties of Multiwalled Carbon Nanotube-Polycarbonate Composites, 7th EUROMECH Solid Mechanics Conference, Instituto Superior Técnico, Lissabon, Portugal, 09-08 ○

Brühwiler, P.

Comparison of Quasistatic to Impact Mechanical Properties of Multiwall Carbon Nanotube, Polycarbonate Composite, Uppsala universitet, 03-20 ○

Crespy, D./Popa, A.-M./Weder, M./Bruewiler, P./Rossi, R.

Smart materials for sport textiles, Avantex, Frankfurt, 06-16 ○

Crespy, D.

Nanotechnologies for an optimum protection and comfort in protective clothing, Innovat. in Textiles 2009: Smart, nano & techn. textiles f. medical, industrial & cloth. Applications, The Royal College of Physicians, London, UK, 03-18 thru 19 ○

Derler, S.

Influence of surface microstructure on the sliding friction of plantar skin against hard substrates, 17th International Conference on Wear of Materials, Las Vegas, USA, 04-19 thru 24 ○

Halbeisen, M.

Tierische Kopien – Biomimethik, Armasuisse Textilsymposium 2009, Bern, 03-25 ○ ●

Kocjan, N./Bogerd, C. P./Allenspach, Ph./Perret, C./Rossi, R.

Does pre-cooling improve 1500 m swimming performance., 14th Annual Congress of the European college of sport science, Oslo, Norway, 06-24 thru 27 ◆

Kocjan, N./Schätti, O./Bogerd, C. P./Rossi, R.

The effect of repetitive cooling on pre-cooling efficiency and exercise performance: a pilot study., 14th Annual Congress of the European college of sport science, Oslo, Norway, 06-24 thru 27 ○

Popa A. M./Crespy D./Brühwiler P. A./Weder M./Rossi R.

Adaptive Systeme für Schutz und Komfort, Swiss Tex Net, Dübendorf, 09-01 ○

Psikuta, A./Richards, M./Rossi, R.

Human simulator for clothing research, European Conference on Protective Clothing, Papendahl, NL, 06-10 thru 12 ○

Psikuta, A./Rossi, R.

The novel single-sector human simulator to study clothing effects on physiological response, International Conference on Environmental Ergonomics, Boston, Massachusetts, USA, 08-2 thru 7 ○

Rossi, R.

Analysis of steam formation and migration in firefighters' protective clothing exposed to radiant heat, 4th European Conference on Protective Clothing, Arnhem, NL, 06-11 ○

Smart Textiles for Protective Clothing and Sports Apparel,

Fiber Society Lecture, Natick, MA, 08-26 ○ ●

and Cornell University, NY, 09-03 ○ ●

Department Information, Reliability and Simulation Technology

Conferences

Edelmann, X./Hilty, L./Birtel, M./Schmidt-Bleek, F./Ruf, A.
[Resource Productivity – Global Challenges – Practical Approaches](#),
Corporate Ecoforum Annual Meeting, San Francisco, USA, 06-14
thru 16 ○ ●

World Resources Forum - a Platform for Global Resource
[Productivity](#), CAETS 2009, 18th Convocation of the Int. Council of
Academies of Engineering and Technological Sciences, Calgary,
Alberta, Canada, 07-13 thru 17 ○ ●

[World Resources Forum 2009](#), Davos, 09-15 thru 16 ■

Edelmann, X./Hilty, L./Lehmann, M./Ruf, A.
[R'09 Twin World Congress](#), Davos, 09-14 thru 16 ■

Hilty, L.
[Energy Consumed vs. Energy Saved by ICT – A Closer Look](#).
In: Wohlgemuth, V., Page, B., Voigt, K. (Eds.): Environmental
Informatics and Industrial Environmental Protection: Concepts,
Methods and Tools, 23rd International Conference on Informatics for
Environmental Protection, Berlin 2009, 09-11 ○

Ruf, A./Edelmann, X.
[Resource Productivity – Challenge for the future](#),
International Conference on Biotechnological Solutions for
Environmental Sustainability, Icon BSES, Tamil Nadu, India, 10-21
thru 23 ○

Acoustics/Noise Prevention

Brink, M./Wunderli, J. M.
[Establishing noise exposure limits using two different annoyance
scales: a sample case with military shooting noise](#),
Euronoise 2009, Edinburgh, UK, 09-26 thr 28 ○

Bütikofer, R.
[Gehschall auf schwimmend verlegten Hartböden: Modellierung und
Messung](#), Akustisches Kolloquium ETH Zürich, Zürich, 04-01 ○

Bütikofer, R./Thomann, G.
[Uncertainty and level adjustments of aircraft noise measurements](#),
internoise 2009, Ottawa, Canada, 09-23 thr 26 ○ ●

Eggenschwiler, K.
[Some projects and ideas to promote good classroom acoustics](#),
internoise 2009, Ottawa, Canada, 09-23 thr 26 ○ ●

[Phänomene und Werkzeuge der Akustik](#), 1.
Symposium Büro.Raum.Akustik. Köln, Germany, 11-12 th 13 ○

Heutschi K./Wunderli J.M.
[Reflexionsberechnungen bei der Schallausbreitung im Freien](#),
SGA-Herbsttagung 2009, Dübendorf, Schweiz, 11-05 ○

Heutschi, K.
[Modeling of sound propagation over ballast surfaces](#),
Euronoise 2009, Edinburgh, UK, 10-26 thru 28 ○

[Nächtlicher Strassenlärm, Nacht der Forschung: Forschende im
Gespräch](#), Zürich, Schweiz, 09-25 ○

Mao, Q.
[Experimental study for passive control of sound transmission trough
a double glazed window using optimally tuned Helmholtz
resonators](#), ICSV16, Krakow, Poland, 07-05 thru 09 ○ ●

Nguyen, C. H.
[Vibroacoustic simulation of a triple glazed window as an example
of a multilayered structure](#),
ICSV16, Krakow, Poland, 07-05 thru 09 ○ ●

Pieren R.
[Passive Messung raumakustischer Parameter mit Musik](#),
SGA-Herbsttagung 2009, Dübendorf, Schweiz, 11-05 ○

Pietrzko, S.
[Noise reduction in a duct using passive, semi active shunt
loudspeakers](#), ICSV16, Krakow, Poland, 07-05 thru 09 ○ ●

Schäffer, B./Plüss, S./Thomann, G./Bütikofer, R.
[Aircraft noise calculations for relevant periods of day using a
complete set of radar data](#),
NAG/DAGA 2009, Rotterdam, NL, 03-23 thru 26 ○

Schlachter, I./Heutschi, K.
[Footprint of a vehicle – the Swiss Contribution](#).
NAG/DAGA 2009, Rotterdam, NL, 03-23 thru 26 ○

Schreckenber D./Thomann, G./Basner, M.
[FFI and FNI – two effect based aircraft noise indices at Frankfurt
Airport](#), Euronoise 2009, Edinburgh, UK, 09-26 thr 28 ○

Wunderli, J. M.
[Das Schallausbreitungsmodell von sonRAIL](#),
RAIL-noise 2009, Berlin, D, 02-26 thru 27 ○

[The sound propagation model of sonRAIL](#),
Euronoise 2009, Edinburgh, UK, 09-26 thr 28 ○

Electronics/Metrology/Reliability

Berdiñas, V.
[Profile presentation of the Laboratory of Electronics/Metrology/
Reliability for participating in European Green Cars Projects](#).
Sustainable Surface Transport Information Days, Brussels., 09-28
thru 29 ○

Brönnimann, R./Terrasi, G.
[Strain Monitoring by Resistance Mesurement of Carbon Fiber
Prestressing Tendons in Filigree High Performance Concrete
Elements](#), 4th International Conference on Structural Health
Monitoring of Intelligent Infrastructure, 07-22 thru 24 ○

Brönnimann, R./Widmann, R.
[Monitoring a bowstring arch bridge at Empa with novel sensing
systems](#), 4th International Conference on Structural Health
Monitoring of Intelligent Infrastructure, 07-22 thru 24 ○

Grossmann, G.
[Werkstofftechnische Einführung zur Zuverlässigkeit von
Lötverbindungen](#),
BFE Konferenz TU Berlin, Germany, 02-19 thru 20 ○ ●

[Materialien und Effekte beim Wellenlöten](#),
12. Europäisches Elektrotechnologie Kolleg, Mallorca, Spain, 03-18
thru 22 ○ ●

[Werkstofftechnische Systematik der Degradation von
Lötverbindungen](#), SMT Nürnberg, Germany, 05-04 thru 05 ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Department Information, Reliability and Simulation Technology

Conferences

Hack, E.

Combination of Phase Stepping and Fringe Tracking to Evaluate Strain from Noisy DSP Data, FRINGE 2009, 6th Int. Workshop on Advanced Optical Metrology, Nürtingen, Germany, 09-13 thru 16 ♦ ●

Held, M.

Comparison and evaluation of newest failure rate prediction models: FIDES and RIAC 217Plus, ESREF 09, Arcachon, France, 10-06 thru 10 ○

Iwaniuk, D.

Measuring the 3D Point Spread Function of Superresolving Pupil Filters Focused into a Refractive Medium, OSA Conference Novel Technologies in Microscopy, Vancouver, Canada, 04-25 thru 05-01 ○

Jacob, P.

Auditing of Process Robotics for Micro-/Nanotechnical-Damage Cases, Diagnostics on both devices and robotics, measurement equipment, robotic root causes and how to cure, ESD Late Afternoon Seminar, Fachhochschule Nordwestschweiz, Windisch, 03-12 ○ ●

Best Paper Presentation, «Unusual Defects, Generated by Wafer Sawing: Diagnosis, «Mechanisms and How to Distinguish From Related Failures», IPFA 2009, 16th International Symposium on the Physical & Failure Analysis of Integrated Circuits, Shuzu, China, 07-6 thru 11 ○ ●

Reading Distance Degradation Mechanisms of Near Field RFID Devices”, ESREF 09, Arcachon, France, 10-06 thru 10 ♦ ○

ESD-ähnlich Ueberspannungen an Mikrochips infolge induktiver Lasten: Fallbeispiele für Gegenmassnahmen und Tests, ESD-Forum e.V. Berlin, Germany, 12-01 thru 02 ○ ●

Jacob, P./Hack E.

Ermittlung mechanischer Resonanzen in Leistungsbaulementen aus Mirageexperimenten 38. Kolloquium Halbleiter-Leistungsbaulemente und ihre systemtechnische Anwendung, VDE, Freiburg i. Breisgau, Germany, 11-02 thru 03 ○

Jefimovs, K.

Applications of ps-laser machining, SSOM Engelberg Lectures on Optics 2009: Industrial Photonics, Hotel Regina Titlis, Engelberg, 03-16 thru 19 ○ ●

Applications of «cold» laser machining SEREC event: Nanoelectronics and nanophotonics, ETH Zürich Hönggerberg, Zürich, 06-25 ○ ●

La Mattina, F.

Optical investigation of a resistance-change memory device, EUFANET, Optical Localization Techniques Workshop in Toulouse, France., 01-26 thru 27 ○ ●

Lotito, V./Sennhauser, U./Hafner, C.

Finite element analysis of asymmetric SNOM probes, 5th Workshop on Numerical Methods for Optical Nano Structures, ETHZ, 07-6 thru 8 ○

Mooser, R.

Estimation of Affine Transformations directly from Tomographic Projections, ISPA 2009, Salzburg, Austria, 09-16 thru 18 ○

Sanabria, S.

Detection of delamination defects in glued timber structures with air-cupled ultrasound, Montags-Kolloquium ETH Zürich, 09-14 ○ ●

Sanabria, S./Sennhauser U./Neuenschwander J./Niemz P.

Air-Coupled Ultrasound Inspection of Glued Solid Wood Boards, 16th International Symposium on Nondestructive Testing and Evaluation of Wood, Beijing, China, 10-12 thru 14 ○

Media Technology

Avelar, S./Allard, J.

From Graphical Presentation to Users' Comprehension of Transantiago Network Map, 24th International Cartographic Conference 2009, Santiago, Chile, 11-15 thru 21 ○

Baranczuk, Z.

Image Quality Measures and Individualized Conjoint Analysis for Evaluating Gamut Mapping Algorithms, Giovik Color Imaging Symposium 2009, Giovik, Norway, 6-19 ○ ●

Baranczuk, Z./Giesen, J./Zolliker, P.

Image Quality Measure for Evaluating Gamut Mapping, 17th Color Imaging Conference 2009, Albuquerque NM, 11-9 thru 13 ○

Caluori, U./Simon, K.

An RGB Color Management Concept based on an Improved Gamut Mapping Algorithm, Color Imaging XIV: Displaying, Processing, Hardcopy, and Applications 2009, San José CA, 1-18 thru 22 ○

Halbeisen, M./Hufenus, R./Zolliker, P./Shi, W.

Optical effects by fiber surface microstructuring, 48th man-made fibers congress 2009, Dornbirn A, 9-16 thru 18 ○

Scheller Lichtenauer, M./Mourad, S./Zolliker, P./Simon, K.

Classification of Paper Images to Predict Substrate Parameters prior to Print, CCIV'09 St. Etienne, 3-26 thru 27 ○

Spro, I./Baranczuk, Z./Stamm, T./Zolliker, P.

Web-based psychometric evaluation of image quality, Image Quality and System Performance VI 2009, San José CA, 01-18 thru 22 ○

Stamm, T./Simon, K.

Dotgain estimation using linear least squares incorporating neighboring and clustering effects, Color Imaging XIV: Displaying, Processing, Hardcopy, and Applications 2009, San José CA, 01-18 thru 22 ○

Zolliker, P.

Conjoint Analysis of Parametrized Gamut Mapping Algorithms, Hochschule Darmstadt, 05-08 ○ ●

Technology and Society

Birtel, M./Lehmann, M./Hilty, L.

World Resources Forum,

& R'09 Twin World Congress, Davos, 09-13 thru 16 ■

Caduff, M.

Integrating Technical Scaling Laws into LCA,

38th LCA Discussion forum, Zurich, 06-19 ○ ●

Scaling laws in Life Cycle Assessment,

1st Young Environmental Scientists Meeting, SETAC Europe, Landau, Germany, 03-16 thru 18 ■ ○

LCA of thermally modified timber and its application in noise barrier elements, European Conference on Wood Modification, Stockholm, Sweden, 04-27 thru 29 ○

Size and technology scaling in LCA: the example of an early-stage SNG production system, Bio-SNG 09, Zurich, 05-26 thru 27 ◆

Coroama, V.

Videoconferencing instead of flying – is abstinence (in science) a good (climate) protection? Lecture during the ETH Zurich symposium «Sustainability in Academic Research – Wie nachhaltig kann und muss Wissenschaft sein?», 07-30 ○ ●

Das Potential von ICT für Energieeffizienz,

Uni Bern, Asut-Tagung, 12-09 ○ ●

Coroama, V./Hilty, L. M.

The Role of ICT in Energy Consumption and Energy Efficiency.

ICT ENSURE Workshop at the «Towards eEnvironment» conference, Prague, Czech Republic., 03-26 ○ ●

Faist Emmenegger, M.

Web-based tool for simplified biofuels' LCA,

SETAC 15th LCA Case Studies Symposium, Paris, France, 01-22 thru 23 ○

Environmental impacts of biofuels,

AMERICANA 2009, Montreal, Kanada, 03-17 thru 03-19 ○ ●

Sustainability Quick Check for Biofuels – a Web-based tool for streamlined 'biofuels' LCA, 17th European Biomass Conference, Hamburg, Germany, 06-29 thru 07-03 ○

Relevance of water use in the LCA of biofuels, Life Cycle Assessment IX «toward the global life cycle economy», Boston, USA, 09-29 thru 10-02 ◆

Sustainability Quick Check for Biofuels – a tool for standardized and simplified LCA as driver for sustainable biofuel production,

Life Cycle Assessment IX toward the global life cycle economy, Boston, USA, 09-29 thru 10-02 ○

Faist Emmenegger, M./Reinhard, J./Zah, R.

Sustainability Quick Check Tool for Biofuels (SQCB): A Web-based Tool for Streamlined Biofuel LCA, 4th International Conference on Life Cycle Management, Cape Town, South Africa, 09-06 thru 09 ◆

Gauch, M.

Environmental Assessment of Biofuels, Annual conference of AVIA International, San Sebastian, Spain, 06-13 ○ ●

Gauch, M./Widmer, R./Notter, D./Stamp, A./Althaus, H.J./Wäger, P. Life Cycle Assessment of Lithium Ion Batteries – Inventory of Components and Processes, Electric Vehicle Symposium EVS24, Stavanger, Norway, 02-13 thru 15 ◆ ○ ●

Gmünder, S.

Wokshop Agrofuels, 10. Wissenschaftstagung Ökologischer Landbau, ETH Zürich, 02-06 ○ ●

Life Cycle Assessment of Jatropha based rural electrification,

6. International Conference on Biofuels, New Delhi, India, 03-04 ○ ●

SQCB-streamlined LCA on Biofuels, 3rd Latin American LCA

Conference (CILCA), Puçon, Chile, 04-27 thru 29 ○ ●

Life Cycle Assessment of Jatropha based rural electrification,

competing claims on Energy, North-South centre, ETHZ, 09-10 ◆

Gottschalk, F.

Modeling the environmental concentrations of Engineered Nanomaterials based on a Probabilistic Material Flow Analysis, SETAC Europe 19th Annual Meeting Göteborg, Sweden, 05-31 thru 06-04 ○

Probabilistic material flow modelling for assessing the environmental exposure to nanomaterials,

ETH Zurich, NSSI Factory, 06-09 ○

and Europ. Network on Health and Environ.

Impact of Nanomaterials, Bilthoven, NL, 10-5 thru 07 ○ ●

Modeled environmental concentrations of engineered nanomaterials (TiO₂, ZnO, Ag, CNT, fullerenes) for different regions, 4th Inter. Conf. on the Environ. Effects of Nanoparticles and Nanomaterials, University of Vienna, Austria, 09-6 thru 09 ○

Althaus, H. J./Faist Emmenegger, M./Reinhard, J./Zah, R.

Environmental Decision Support for Biofuel Policies, 6th International Biofuels Conference, Delhi, India, 03-04 ○ ●

Hilty, L.

Environmental impact of ICT – A conceptual framework and some strategic recommendations. «ICT for a global sustainable future» Conference, Brussels, January 23, 2009, 01-23 ○ ●

Die materielle Seite der Virtualisierung. Gastvortrag. Hochschule für Wirtschaft, Luzern, 5. Februar 2009, 02-05 ○ ●

Nachhaltigkeit und IKT. Was Informations- und

Kommunikationstechnik mit nachhaltiger Entwicklung zu tun hat. Ringvorlesung Informatik und Nachhaltigkeit, TU Wien, 11. März 2009, 03-11 ○ ●

ICT, Ethics, and Sustainable Development.

Colloquium, University of Zurich, March 19, 2009, 03-19 ○ ●

Informationsgesellschaft und Nachhaltigkeit.

Gastvortrag, Ringvorlesung Soziale Ökologie, Fakultät für Interdisziplinäre Forschung Fortbildung (IFF), Universität Klagenfurt, Wien 23. März 2009, 03-23 ○ ●

Informatik und Nachhaltigkeit. Informatik-Kolloquium, Universität Hamburg, 27. April 2009, 04-27 ○ ●

ICT for a Sustainable Society? Rethinking the «Green IT» debate in the context of sustainable development. Invited Keynote Lecture, IADIS Conference on ICT, Society and Human Beings. Algarve, Portugal, June 21, 2009, 06-21 ○ ●

ICT and Sustainability – Issues beyond Climate Change, INFORMATIK 2009, 39. Jahrestagung der Gesellschaft für Informatik, Lübeck, Germany, 09-28 ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Department Information, Reliability and Simulation Technology

Conferences

Hilty, L.

[Institutionelle Bedingungen für interdisziplinäre Forschung.](#)
Festakt 30 Jahre Fakultät für Interdisziplinäre Forschung und
Fortbildung (IFF), Universität Klagenfurt, Austria, 10-02 ○ ●

[Wege zu einer nachhaltigen Informationsgesellschaft.](#)

Gastvortrag, Zürcher Hochschule für Angewandte Wissenschaften,
Winterthur, 22. Oktober 2009, 10-22 ○ ●

[Sustainable Development: Implications for Computer Scientists.](#)
ETH Computer Science Colloquium, Zurich, November 16, 2009,
11-16 ○ ●

Hischier, R.

[ecoinvent – most comprehensive and most complete public LCI
database worldwide](#), 3rd CILCA), Puçon, Chile, 04-27 thru 29 ○ ●

[Constraints of Using Data in France](#), ESPACE: Eco-conception of a
photovoltaic system by its life cycle assessment and environmental
impact European Workshop – Lyon, France., 10-30 ○ ●

[Introduction to LCA, and Nano and LCA: problems and
approaches](#), NanoImpactNet training workshop for young re-
searchers on life cycle-based methods for assessing nanomaterials,
Training workshop, Bratislava, Slovakia, 11-09 thru 11 ○ ●

[LCI Data for Electronics – first Comprehensive Public Inventory
Data for ICT Sector & its influence on existing studies](#),
existing conclusions, 2nd Chinese LCM Conference, Beijing, China,
11-14 thru 16 ○

Hischier, R./Weidema, B.

[National LCI Databases based on a common international,
technology LCI database](#), 3rd Latin American LCA Conference
(CILCA), Puçon, Chile, 04-27 thru 29 ○

[ecoinvent Workshop](#), R'09 Twin World Congress & World Resources
Forum, Davos, 09-13 thru 16 ○

[ecoSpold version 2 – improved data format meeting the challenges
of future LCI databases](#), Life Cycle Assessment IX toward the
global life cycle economy, Boston, USA, 09-29 thru 10-02 ○

and 2nd Chinese LCM Conference, Beijing, China, 11-14 thru 16 ○

[National LCI Databases based on a common international,
technology LCI database](#), Life Cycle Assessment IX toward the
global life cycle economy, Boston, USA, 09-29 thru 10-02 ○

Knoeri, C./Binder, C./Althaus, H. J.

[Integrated agent-based decision-making modelling and spatially
explicit material flow simulation; The Swiss recycling construction
material market](#). 2009 Inter. Society for Industrial Ecology Conf.;
Transition towards Sustainability, Lisbon, 06-20 thru 25 ○

[Empirical operationalized decisions for agent based modelling;
Swiss recycling construction material usage](#). 8th Biennial Conference
on Environmental Psychology, Zürich., 09-07 thru 09 ○

Krug, H./Fleischer, T./Hocke, P./Kastenholz, H./Quendt, C./
Spangenberg, A.

[Evaluation of scientific evidence of health-related effects induced by
engineered nanomaterials](#), 1st NanoImpactNet Conference – for a
healthy environment in a future with nanotechnology, Lausanne,
03-23 thru 27 ○ ●

Mueller, E./Schluep, M./Widmer, R./Gottschalk, F./Böni, B.

[Assessment of e-waste flows: a probabilistic approach to quantify
e-waste based on world ICT and development indicators](#),
R'09 Davos, 09-14 ○

Müller, N.

[Exposure Modelling of Engineered Nanoparticles in the
Environment](#), NanoImpactNet Conf., Lausanne, 03-23 thru 27 ○

and Inter. Symposium on Mineralogy,
Environ. and Health, Université Paris-Est, France, 09-18 ○ ●

Nowack, B.

[Nano and Environment – a Problem or not?](#),
RWTH Aachen, Germany, 09-10 ○ ●

[Nano and environment- a problem or not?](#) Swiss Federal Institute
for Forest, Snow and Landscape Research, Birmensdorf, 01-21 ○ ●

[Exposure modeling of engineered nanoparticles in the environment](#),
237th ACS National Meeting, Salt Lake City, USA, 03-22 thru 26 ○

[Is anything out there?](#) What life-cycle perspectives can tell us about
nanomaterials in the environment, ETH Lausanne, 05-11 ○ ●

[Chancen und Risiken der Nanotechnologie für die Umwelt](#),
Pädagogische Hochschule Zentralschweiz, 05-11 ○ ●

[Nano and Environment – Where to look for the nano-needle in the
environmental haystack?](#)

Johns Hopkins University, USA, 05-20 ○ ●

[Probabilistic exposure modeling of engineered nanoparticles in the
environment](#), Inter. Conf. on the Environmental Implications and
Applications of Nanotechnology, University of Amherst, USA, 06-09
thru 11 ○

[Behavior of silver nano-textiles during washing](#). 4th International
Conference on the Environmental Effects of Nanoparticles and
Nanomaterials, University of Vienna, Austria, 09-06 thru 09 ◆

[International Workshop on Characterization, Interactions, and
Behavior of Engineered Nanoparticles in Aqueous Systems](#),
«Exposure modeling of engineered nanoparticles in the
environment», Karlsruhe, Germany., 10-22 ○ ●

[NanoImpactNet training workshop for young researchers on life
cycle-based methods for assessing nanomaterials](#),
Training workshop, Bratislava, Slovakia, 11-09 thru 11 ■

[Environmental exposure assessment of nanomaterials](#),
1st Nanosafety Autumn School on (Eco)Toxicology of Nanoparticles:
from Characterization to Risk Assessment, Venice (Italy)., 16-11
thru 18 ○ ●

Reinhard, J./Faist Emmenegger, M./Zah, R.

[Sustainability Quick Check Tool for Biofuels \(SQCB\):
A Web-based Tool for Streamlined Biofuel LCA](#), IEA Bioenergy: Task
38 – Greenhouse Gas Balances of Biomass and Bioenergy Systems.
Workshop: Land Use Changes due to Bioenergy Quantifying and
Managing Climate Change and Other Environmental Impacts,
Helsinki, Finland, 03-30 thru 04-01 ○

Reinhard, J./Zah, R.

[Biotreibstoffe – Ökologische und ethische Aspekte der
Energiepflanzenproduktion – Treibstoffe und Nahrungsmittel in
Konkurrenz](#), BBZ Arenenberg – Modulare Weiterbildung
Landwirtschaft 2008/09, Arenenberg, 02-26 ○

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Department Information, Reliability and Simulation Technology

Conferences

Schluep, M.

Experiences from e-waste initiatives in Africa, E-Waste Management Forum, Cairo, 02-09 ○ ●

Citizens participation, Opportunities and Partnerships in E-Waste Control, NESREA International Conference on the Control of e-Waste in Nigeria, Abuja, Nigeria, 07-20 ○ ●

E-Waste Management in Africa,

E-Scrap Conference, Orlando FL, USA, 09-23 ○ ●

Schluep, M./Hagelücken, Ch.

Recycling strategischer Metalle aus Elektronikschrott vor dem Hintergrund globaler Materialströme,

Re-source 2009 «Ressourcen- und Recyclingstrategien – von der Idee zum Handeln», Berlin, Deutschland, 06-23 ○ ●

Schluep, M./Hagelücken, Ch./Meskers, C./Wang, F./Müller, E./Kuehr, R. et al.

Market potential of innovative e-waste recycling technologies in developing countries, R'09 Davos, 09-14 ○

Schwab, F.

Method development to quantify toxicity, agglomeration and adsorption in a ternary algae-carbon nanotube-pollutant laboratory system,

SETAC Europe, Göteborg, Sweden, 05-31 thru 06-04 ◆

Method development to quantify toxicity and adsorption in an algae-carbon nanotube-pollutant laboratory system,

5th Annual Symposium of the PhD Program in Sustainable Agriculture, Tänikon, 08-27 ◆

Influence of Biopolymers and Surfactants on Dispersion of Carbon Nanotubes (CNTs) in the Aquatic Environment, Young Environmental Scientist (YES) Meeting, Landau, Germany, 03-16 thru 18 ○

and NanoImpactNet Conference, Lausanne, 03-23 thru 27 ○

and SETAC Europe, Göteborg, Sweden, 05-31 thru 06-04 ◆

Dispersion of Carbon Nanotubes in the aquatic environment,

4th International Conference on the Environmental Effects of Nanoparticles and Nanomaterials, Vienna, Austria, 09-06 thru 09 ◆

Som C./Halbeisen, M./Köhler, A./Heuberger, M.

Designing safe nanoproducts by combining life cycle with risk assessment – NanoTextiles, 03-25 ○ ●

Safe nanotextiles from a life cycle perspective,

Symposium on Nanoparticle Release During the Life Cycle of Nanomaterials & Nanocomposites, Nanotech 2009, Houston, USA, 05-05 ○ ●

Som, C./Köhler A.

Strategies for sustainable innovation in emerging technologies – the cases of Nano Textiles and Smart Textiles, Multinational Enterprises Sustainable Development, Nancy, France, 11-04 ○

Spangenberg, A./Fleischer, T./Hocke, P./Kastenholz, H./Krug, H./Quendt, C.

The tool «Evidence maps» – appliance in evidence assessment of health-related effects induced by engineered nanoparticles and its utilization in risk communication,

Valdor Symposium 2009, Stockholm, 06-08 thru 11 ○ ●

Stamp, A./Wäger, P.

PhD-Workshop 'Scarce elements supply and demand: Critical issues and implications for sustainable governance'.

R'09 Twin World Congress & World Resources Forum, Davos, Switzerland., 09-13 ■ ○

Steubing, B.

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Momentum Training Seminar / EPFL, 06-25 ○ ●

Steubing, B./Reinhard, J.

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Bio-SNG'09, Zürich, 05-26 thru 05-27 ○ ●

Life Cycle Analysis of the Production of Synthetic Natural Gas from Wood and Considerations to the Optimal Plant Scale,

17th European Biomass Conference & Exhibition / Hamburg, 06-29 thru 07-02 ○

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Potenzial und Nutzungsszenarien von Bioenergie in der Schweiz, Das Potenzial für erneuerbare Energien in der Schweiz, Empa Dübendorf, 11-09 ◆

Steubing, B./Wäger, P.

Investigating the supply of forest fuels as a function of forest managers' behavior, 8th Biennial Conference on Environmental Psychology, Zurich, 09-06 thru 09 ◆

Steubing, B./Wäger, P./Zah, R.

Assessing the critical factors that determine the availability of forest fuel in Switzerland with an agent based model, International Workshop on Coping with Crises in Complex Socio-Economic Systems, Zürich, 06-08 thru 06-12

Untersuchung der kritischen Faktoren, welche die Verfügbarkeit von Energieholz beeinflussen mit einem agentenbasierten Modell, Die Forstwirtschaft und die Herausforderungen globaler Entwicklungen, WSL Birmensdorf, 10-01 ◆

Streicher-Porte, M.

E-waste assessment in Minas Gerais/Brazil, ISIE – International Society for Industrial Ecology, Lisbon, Portugal, 06-21 thru 24 ○

Wäger, P.

Seltene Metalle als Rohstoffe für die Informations- und Kommunikationstechnologien, World Usability Day, Zürich, ○ ●

Facing Potential Scarce Metals Supply Constraints under Conditions of Sustainable Development: Requirements for Scarce Metals Supply Systems, IHDP Conference, Bonn., 04-28 ○

Workshop 'Sustainable governance of scarce chemical elements'. R'09 Twin World Congress & World Resources Forum, Davos, 09-15 ■ ○

Verwertungsmöglichkeiten von Kunststoffen aus Elektro- und Elektronikabfällen,

Praxiserfahrungen Kunststoffe, REDILO, Luzern, 11-04 ○ ●

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Department Information, Reliability and Simulation Technology

Conferences

Widmer, R.

[A Life Cycle Perspective on Electric Mobility](#),
IEA-Meeting Stavanger, Norway, 05-12 ○ ●

Widmer, R./Gauch, M.

[Developing a simple test method to compare the mileage of e-scooters](#), Electric Vehicle Symposium EVS24, Stavanger, Norway, 02-13 thru 15 ○ ●

Air Pollution/ Environmental Technology

Bond, S. W./Steinbacher, M./Vollmer, M. K./Reimann, S./Buchmann, B.

[Anthropogenic H₂ emissions to the atmosphere](#), MIT-PSI Consortium Meeting, MIT, Cambridge, MA, USA, 10-22 thru 23 ○

Bond, S. W./Vollmer, M. K./Steinbacher, M./Reimann, S. [H₂ in the atmosphere – an integration from the exhaust pipe to a remote alpine site](#), EGU, Vienna, A, 04-19 thru 24 ○

[Direct and remote H₂ measurements – recent results from Empa](#), Eurohydros 3rd Annual Meeting, Helsinki, FI, 06-3 thru 4 ○

Brunner, D. [Regional NO₂ observations from OMI](#), TEMIS final meeting, ESA-ESRIN Frascati, I, 11-25 ○

Brunner, D./Buchmann, B. [EURAD Air Quality Forecast Service user feedback](#), Final PROMOTE-2 Project Meeting, ESA-ESRIN Frascati, I, 10-29 thru 30 ○

Brunner, D./Henne, S./Vollmer, M. K./Reimann, S. [A new emission estimation approach based on Lagrangian Particle Dispersion Modelling and Kalman-filter based inversion](#), AGU Fall, San Francisco, USA, 12-14 thru 18 ◆

Brunner, D./Zhou, Y. [Optimization and usage of satellite observations for AQ monitoring in central Europe](#), CEOS-ACC, ESA- ESRIN Frascati, I, 06-15 thru 17 ○ ●

Buchmann, B. [Gas-Programme @ Jungfraujoch Trend Analysis](#), Early Warning, Benefit for International Treaties and Programmes, ZAMG Sonnblick symposium, Wien, A, 10-22 ○ ●

Buchmann, B./Reimann, S./Vollmer, M. K./Steinbacher, M./Hill, M./Brunner, D. et al. [Progress Report, Activity 2: Reactive Gases](#), Pollutants and Climate, Geomon 2nd Assembly, Genf, 01-26 thru 28 ○

[Gas-Programme @ Jungfraujoch](#), Trend Analysis, Early Warning, Benefit for International Treaties and Programmes, GAW2009 Symposium, Genf, 05-4 thru 8 ○ ●

Emmenegger, L./Mohn, J./Tuzson, B. [Development and application of quantum cascade laser spectroscopy for CO₂ and N₂O isotopes in environmental research](#), ARI research seminar, Harvard, USA, 09-24 ○ ●

Emmenegger, L./Mohn, J./Tuzson, B. [Development and application of quantum cascade laser spectroscopy for CO₂ and N₂O isotopes in environmental research](#), Atmospheric Sciences Seminar, Harvard, USA, 09-25 ○ ●

Gehrig, R. [Mechanisch erzeugte PM₁₀-Emissionen des Strassenverkehrs – Messkonzept](#), Messtechnik und Resultate für die selektive Quantifizierung von Abrieb und Aufwirbelung, 44. Messtechnisches Kolloquium (MTK), Goslar, D, 05-18 thru 20 ○ ●

[Validation of a modified mini-denuder system for NH₃/NH₃ and HNO₃/NO₃](#), EMEP Task Force on Monitoring and Modelling, Paris, F, 06-15 thru 17 ○

[Overview of air pollution monitoring and recent developments in instruments and techniques, and Comparison of NH₃/NH₄⁺ and HNO₃/NO₃ measurements with DELTA minidenuder and impregnated filter methods](#), Inter. Conf. on Measuring Air Pollutants by Diffusive Sampling and Other Low Cost Monitoring Techniques, Krakow, PL, 09-06 thru 11 ○ ●

Gehrig, R./Bukowiecki, N./Lienemann, P./Poulikakos, L. [Abrasion and resuspension from road surfaces – an important source of fine particles in the environment](#), 7th International conference on Air Quality, Istanbul, TK, 03-24 thru 27 ○

Gianini, M. F. D./Lanz, V. A./Prevot, A. S. H./Hueglin, C. [Source Apportment Study of Submicron Organic Aerosols in Roveredo GR \(Switzerland\)](#), General Assembly, EGU, Vienna, A, 04-19 thru 24 ◆

Heeb, N. V./Ulrich, A./Emmenegger, L. [Chemistry of soot combustion in catalytic diesel particulate filters](#), Freiburger Symposium der SCG, Fribourg, 06-24 thru 25 ○ ●

Henne, S. [Air Pollution – Climate Interactions](#), Contribution to European Policy Development, Brussels, B, 11-03 thru 04 ○ ●

Henne, S./Brunner, D./Klausen, J./Buchmann, B. [Assessment of Parameters Reflecting Site Representativeness](#), Geomon 2nd Assembly, Genf, 01-26 thru 28 ○

[Analysis of Recent European Surface Ozone Trends Considering Site Representativeness](#), and Long-range Transport and Its Impact on Trace Gas Variability at Selected GAW Stations, General Assembly, EGU, Vienna, A, 04-19 thru 24 ◆

[Long-range transport and its impact on trace gas variability at selected GAW stations](#), MOCA2009, Montreal, CAN, 07-19 thru 07-29 ○

Hueglin, Ch./Burtscher, H./Graf, P./Houle C./Meier, D./Rochat, E. [Determination of particulate ammonium \(NH₄⁺\) by thermal dissociation and detection of the generated gaseous ammonia](#), European Aerosol Conference 2009, Karlsruhe, D, 09-07 thru 11 ◆

Keller, C./Brunner, D./Vollmer, M.K./Conen, F./Reimann, S. [Top-down estimation of halogenated greenhouse gas emissions using Radon as tracer](#), Non-CO₂ Greenhouse Gases (NCGG-5) – Science, Reduction Policy and Implementation, Wageningen, NL, 07-02 thru 04 ○

Keller, C./Brunner, D./Vollmer, M.K./Steinbacher, M./Schürmann, R./Conen, F. et al. [Halogenated greenhouse gas emissions over Central Europe inferred from ambient air measurements and 222Rn activity](#), GEIA – ACCENT 2009 Conference, Oslo, NO, 10-26 thru 28 ○

Klausen, J. [GAWSIS and Interoperability in GAW](#), 1st GECA Meeting, WMO, Genf, 01-29 ○

and GAW2009 Symposium, Genf, 05-04 thru 08 ○ ●

[WP6.1 Priority Data Products – Progress and Plans](#), GEOmon Activity 6 Meeting, Paris, F, 03-26 thru 27 ○

[Quality of in-situ observations](#), CAS XV Technical Conference, Incheon, Korea, 11-16 thru 25 ○ ●

Klausen, J./Henne, S./Zellweger, C./Buchmann, B.
Surface Ozone and Carbon Monoxide Variability and Trends at the Global GAW Stations Assekrem (Algeria), Bukit Koto Tabang (Indonesia) and Mt. Kenya (Kenya),
General Assembly EGU, Vienna, A, 04-19 thru 24 ○

Klausen, J./Müller, G.
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GAW2009 Symposium, Genf, 05-04 thru 08 ○ ●

Klausen, J./Textor, C./Vik, A.F.
Plans and visions of data harmonization efforts in GEOMon and beyond, Geomon 2nd Assembly, Genf, 01-26 thru 28 ◆ ○ ●

Klausen, J./Zellweger, C./Buchmann, B.
World Calibration Centre for Carbon Dioxide (Audits) – Supporting the Quality of the Global Observation System,
15th WMO/IAEA Meeting of Experts on Carbon Dioxide, Other Greenhouse Gases, and Related Tracer Measurement Techniques, Jena, D, 09-7 thru 10 ○

Knote, C.
COSMO-CLM General Assembly, Karlsruhe, D, 09-14 thru 16 ○

Knote, C./Brunner, D.
COSMO-ART: Setup and first evaluation,
ACCENT / GLOREAM workshop, Università degli studi di Brescia, Brescia, I, 10-25 thru 26 ○

Mohn, J./Tuzson, B./Emmenegger, L.
Advances in infrared spectroscopy for conducted and diffuse emission, CEM 2009, Stresa, I, 09-23 thru 25 ○

Mohn, J./Tuzson, B./Guggenheim, C./Vollmer, M. K./Emmenegger, L.
High precision and site selective N₂O isotopomer analysis at ambient concentrations,
FLAIR, Garmisch-Partenkirchen, D, 09-06 thru 11 ○

Reimann, S./Brunner, D./Henne, S./Vollmer, M. K./Keller, C./Manning, A. et al.
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Steinbacher, M.
EUROHYDROS Workpackage 4 – Calibration, quality assurance and data management, Eurohydros 3rd annual meeting, Helsinki, FI, 06-03 thru 04 ○

Greenhouse Gas Measurements and Related Modelling at Jungfraujoch – Empa's Activities,
Workshop on GHGs in Northern Italy, Ispra, I, 06-23 ■ ○

Ground-based in-situ observations of oxides of nitrogen: experience from the Swiss National Air Pollution Monitoring Network,
GAW Experts Workshop on Oxides of Nitrogen, Hohenpeissenberg, D, 10-08 thru 09 ○

Steinbacher, M./Buchmann, B./Bugmann, S./Hueglin, C.
Continuous CO₂ observations on a Swiss motorway: experimental determination of average emission factors,
10th Swiss Global Change Day, Bern, 03-31 ◆

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European source allocations and emission estimates for CH₄ derived from in-situ observations at Jungfraujoch,
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Tuzson, B./Mohn, J./Emmenegger, L.
Applications of QCL based spectrometers for isotope ratio measurements in environmental research,
7th TDLS, Zermatt, 07-13 thru 17 ◆

Quantum cascade laser based in situ isotope ratio measurements at Jungfraujoch (3580 masl) reveal rapid changes in $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ of tropospheric CO₂ caused by regional pollution events,
FLAIR 2009, Grainau, D, 09-06 thru 11 ○

Recent advances in CO₂ isotope ratio measurements using quantum cascade lasers,
8th ICDC, Jena, D, 09-13 thru 19 ○

Vollmer, M. K.
Molecular hydrogen (H₂) emissions and its isotopes from anthropogenic activities,
AGAE-Meeting, San Diego, USA, 10-26 thru 28 ○

Vollmer, M. K./Steinbacher, M./Bond, S. W./Reimann, S.
Anthropogenic sources of atmospheric molecular hydrogen (H₂): Deliverable 2.4 of project,
Eurohydros 3rd Annual Meeting, Helsinki, FI, 06-3 thru 4 ○

Vollmer, M. K./Walter, S.
Santa's view on hydrogen: H₂ emissions from residential combustion systems,
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World Calibration Centre for Surface Ozone, Carbon Monoxide and Methane (WCC-Empa),
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15th WMO/IAEA Meeting of Experts on Carbon Dioxide, Other Greenhouse Gases,
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Zeyer, K.
5th Gas Analysis Symposium & Exhibition,
Rotterdam, NL, 02-11 thru 13 ◆

Zhou, Y./Brunner, D.
An improved tropospheric NO₂ retrieval for OMI satellite observations, General Assembly, EGU, Vienna, A, 04-19 thru 24 ◆

An Improvement and validation of OMI NO₂ observations over central Europe, O3M SAF USER & ALGORITHM FORUM, Halkidiki, GR, 06-2 thru 4 ○ ●

Analytical Chemistry

Bester, K./Vonmont, H.

Chemische Analytik von Bioziden – Methoden im Überblick, Tagung Auswaschung von Bioziden und Nanopartikeln aus Fassaden, Empa Akademie, Dübendorf, 05-14 ■ ○

Bogdal, C./Schmid, P./Zennegg, M./Anselmetti, F. S./Scheringer, M./Hungerbühler, K.

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Figi, R./Nagel, O./Wille, A./Hartmann, Th.

Novel Method to the Determination of Detection Limits in the Ultratrace Ion Chromatography of Standard Anions, Utopia or Reality? 21st International Ion Chromatography Symposium, Dublin, 09-21 thru 24 ◆

Gerecke, A.

Bromierte Flammschutzmittel, 4. Dresdner Symposium Endokrin Aktive Stoffe in Abwasser, Klärschlamm und Abfällen (ENDO4), Technische Universität Dresden, Dresden, Germany, 03-25 ○ ●

Einflüsse physiko-chemischer Eigenschaften von organischen Bioziden auf das Auswaschverhalten, Tagung Auswaschung von Bioziden und Nanopartikeln aus Fassaden, Empa Akademie, Dübendorf, 05-14 ■ ○

Hagendorfer, H./Lorenz, C./Gehrig, R./Kägi, R./Sinnert, B./Ludwig, Ch. Et al.

Coupling of asymmetric flow field flow fractionation (A4F) to ICP-MS for nanoparticle analysis in consumer products, European Winter Conference on Plasmaspectrometry, Graz, Austria, 02-15 thru 20 ◆

Hagendorfer, H./Lorenz, C./Ludwig, C./Ulrich, A.

Size-classified Quantifications of the Nanoparticle Release from Customer Spray Products, PSI Seminar, Villigen, 05-07 ○ ●

Hagendorfer, H./Ulrich, A.

Nanopartikel-Analytik von kommerziellen Sprayprodukten – ein Gebiet für die gekoppelte Element Massenspektrometrie, Forum Analytik, Wien, Austria, 02-10 thru 11 ○

Chromatographic systems coupled to ICPMS for the characterization of biological-, environmental- and nanoparticulate samples, Agilent Event at European Winter Conference on Plasmaspectrometry, Graz, Austria, 02-15 thru 20 ○ ●

Heeb, N. V.

VERT secondary emission test for combined DPF-deNO_x systems (dePNs), 5th Swiss VERT dePN Meeting, Empa Dübendorf, 03-12 ■ ○

Kombinierte Partikelfilter-DeNO_x-Systeme,

22nd AKPF Meeting, Empa Dübendorf, 03-13 ■ ○

Wirkungsbezogene Bewertung von katalytischen Dieselpartikelfiltern,

Anakon 2009, Berlin, Deutschland, 03-17 thru 20 ○ ●

Effects of low and high oxidation Diesel particulate filters on genotoxic exhaust constituents,

13th ETH conference on Combustion Generated Nanoparticles, ETH Zürich, 06-22 thru 24 ○

Heeb, N. V./Ulrich, A./Emmenegger, L./Sandmayer

Sandmayer Prize: Benefit/risk assessment of catalytic diesel particulate filter technology, SCS Spring Meeting, Neuchâtel, 02-11 ○ ●

Sandmeier Preisträger: Chemistry of soot combustion in catalytic diesel particulate filters, 9. Freiburger Symposium 2009 der Schweizerischen chemischen Gesellschaft, 09-24 thru 25 ○ ●

Homazava, N./Suter, T./Krähenbühl, U./Ulrich, A.

Novel microcapillary FI-ICP-MS technique for in situ time- and element-resolved corrosion investigations, Seminar on Electrochemical NanoScience, Universität Bern, Bern, 02-27 ○ ●

Homazava, N./Suter, T./Quach-Vu, N. C./Schmutz, P./Krähenbühl, U./Ulrich, A.

A novel micro-flow capillary FI-ICP-MS set-up with electrochemical control for the investigation of local corrosion processes, CANAS 2009, Freiberg, Germany, 03-22 thru 25 ◆

Kaegi, R./Ulrich, A./Sinnert, A./Wichser, A./Vonbank, R./Zuleeg, S. et al..

Emission of silver Nanoparticles from Exterior Facade Coatings, International Conference on the Environmental Implications and Applications of Nanotechnology MIT, Boston, USA, 06-09 thru 11 ○

Lorenz, C./Hagendorfer, H./v.Götz, N./Gehrig, R./Ulrich, A./Scheringer, M. et al..

Exposure of Consumers using household sprays containing nanoparticles, NanoImpactNet Integrating Conf., Lausanne, 03-23 thru 27 ◆

Consumer exposure to household sprays containing nanoparticles: Experimental Assessment and Modelling,

REACH EUROPE 2009 – 5th Inter. Conf. Devoted to Registration, Evaluation and Authorisation of Chemicals, Amsterdam, NL 06-24 thru 26 ◆

Müller, C. E./De Silva, A. O./Small, J./Wang, X./Muir, D. C. G./Gamberg, M. et al.

Enrichment of Perfluorinated Compounds along a Remote Terrestrial Food Chain: From Lichen to Wolves, 19th Annual Meeting SETAC Europe, Göteborg, Sweden, 05-31 thru 06-04 ○

Ulrich, A.

Metal emissions Analysis, Challenges and Risks, 5th Swiss VERT dePN Meeting, Empa Dübendorf, 03-12 ■ ○

Nanoparticle and Ultratrace Analysis in Material Science,

Safety and Environmental Technology Seminar, ETHZ Zuerich, 05-18 ○ ●

13th Conference on Combustion Generated Nanoparticles, ETH Zürich, 06-22 thru 24 ■

Analyse von Nanopartikeln, Fachtagung Nano und Umwelt, Empa Akademie, Dübendorf, 10-26 ○ ●

Analysis of release from products (production, use), NanoImpact-Net The European Network on the Health and Environmental Impact of Nanomaterials, Bratislava, Slovakia, 11-09 thru 11 ○ ●

Organisation = ■

Poster = ◆

Lecture = ○

invited = ●

Ulrich, A./Hagendorfer, H./Lorenz, C./Gehrig, R./Kägi, R./Sinnert, B. et al.

Size fractionated analysis of the release of engineered nanoparticles from materials using FFF-ICP-MS,
CANAS 2009, Freiberg, Germany, 03-22 thru 25 ■ ◆

Ulrich, A./Homazava, N./Suter, T./Quach-Vu, N.C./Schmutz, P./Krähenbühl, U.

Investigation of online time- and element-dependent corrosion behaviour of Zr-based bulk metallic glasses using a novel micro-flow capillary FI-ICP-MS set-up with electrochemical control,
European Winter Conference on Plasmaspectrometry, Graz, Austria, 02-15 thru 20 ◆

Investigation of online time- and element-resolved corrosion behaviour of materials for new medical applications using a novel micro-flow capillary FI-ICP-MS set-up with electrochemical control,
CANAS 2009, TU Bergakademie Freiberg, Freiberg, Germany, 03-22 thru 25 ■ ○

Ulrich, A./Wichser, A./Emmenegger, L./Heeb, N. V.

Riduzione degli inquinanti nelle emissioni da traffico – possibilità e rischi del filtri antiparticolato/Schadstoffreduktion bei verkehrsbedingten Emissionen – Chancen und Risiken von Partikelfiltern, Convegno Tagung, Bolzano, Italy, 05-27 ○ ◆

Wichser, A./Ulrich, A.

Lead Isotopes and Elemental Compositions in Ancient Gold Objects by Plasma Mass Spectrometry – Prospects and Limitations,
Aurum 2009, Paris, France, 05-11 thru 13 ◆

Wichser, A./Ulrich, A./Seiler, C./Schmid, P./Burkhardt, M./Hean, S./Vonmont, H.

Additive Emissions from Polymer Materials used for Roof Waterproofing, European Winter Conference on Plasmaspectrometry, Graz, Austria, 02-15 thru 20 ◆

Zennegg, M./Sorg, O./Schmid, P./Saurat, J. H.

Identification of Human Metabolites of 2,3,7,8-TCDD,
29th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN 2009, Beijing, China, 08-23 thru 28 ○

Zennegg, M./Yu, X./Wong, M. H./Weber, R.

Fingerprints of Chlorinated, Brominated and Mixed Halogenated Dioxins at Two E-Waste Recycling Sites in Guiyu, China, 29th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN 2009, Beijing, 08-23 thru 28 ◆

Hydrogen and Energy

Bielmann, M.

Diborane evolution from LiBH₄, NaBH₄ and KBH₄ during desorption, Hypothesis VIII, Hotel Corinthia, Lisbon, Portugal, 04-01 thru 03 ○

SELF – Autonomous living with hydrogen seasonal storage, HFC2009 (Hydrogen and Fuelcell Conference) Vancouver, Canada, 05-31 thru 06-03 ○

Borgschulte, A.

The tank is empty,
3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

The Teller-Redlich rule in complex hydrides,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ◆

Borgschulte, A.

Hydrogen – The future energy carrier,
Beyond Kyoto, Aarhus, Denmark, 03-05 thru 07 ○ ◆

Interplay of diffusion and dissociation mechanisms during hydrogen absorption,

NIST Diffusion Workshop, Gaithersburg, US, 03-25 thru 26 ○ ◆

Vibrations and diffusion of hydrogen in complex hydrides,

Group seminar NIST, Gaithersburg, US, 03-25 thru 26 ○ ◆

Hydrogen-Deuterium Exchange experiments to probe the decomposition reaction of Complex hydrides,

DCT Faculty Colloquium, University Delft, NL, 06-22 ○ ◆

Seeing Hydrogen in Materials,

Physikalisch-Chemisches Institut der Universität Zürich, 10-08 ○ ◆

Diffusion of Hydrogen,

6th COSY Training Workshop and Complementary Skills Workshop INP, Grénoble, France, 11-02 thru 06 ○ ◆

Das Potenzial für erneuerbare Energien in der Schweiz: Wasserstoff, der erneuerbare Energieträger,

Tage der Technik, Empa Akademie Dübendorf, 11-09 ○ ◆

Technologien für die Energiespeicherung von morgen,

EnAW-Fachtagung 2009; Kongresszentrum Basel, 11-12 ○ ◆

Hydrogen the renewable energy carrier,

Energy Delta Convention Groningen 2009, Groningen, NL, 11-16 thru 18 ○ ◆

Vibrations as the Origin of Solid State Effects in Borohydrides,

MRS Fall meeting, Boston, USA, 11-30 thru 12-04 ○

Buchter, F.

Experimental electronic charge density of LiBH₄ from maximum entropy method,
3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Caputo, R.

First-principles study of metal borides: are they intermediates or precursor compounds for hydrogen storage?,
3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

and NIST: group Dr Terry Udovic, USA, 02-19 ○ ◆

The building motif of metal tetrahydroborates,

3rd Korea-Switzerland Workshop, Jeju Island, Korea, 04-17 thru 18 ○

and Ab-initio study, University of Liverpool, 04-24 ○ ◆

First-principles study of hydrogen absorption in metal borides:

Are they intermediates of decomposition reactions of complex borohydrides?, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Bridging the length scale in computational materials science:

First-principles modelling materials for hydrogen storage, Universitat Autònoma de Barcelona, Física de Materials II, Dept. Física, Barcelona, Spain, 10-12 thru 13 ○ ◆

Friedrichs, O.

Synthesis of LiBH₄ by borane absorption of LiH,
3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Friedrichs, O.

Breaking the passivation – A new, solvent free preparation route for borohydrides, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Gorbar, M.

Development of new membranes for alkaline electrolyser cells based on inorganic material, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ◆

Gremaud, R.

Hydrogen vibrations and diffusion mechanism in H/D exchanged LiBH₄, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

and 3rd Korea-Switzerland Workshop, Jeju Island, Korea, 04-17 thru 18 ○

Vibrational spectroscopy on H/D exchanged LiBH₄: Hydrogen dynamics and diffusion mechanism, Hypothesis VIII, Hotel Corinthia, Lisbon, Portugal, 04-01 thru 03 ○

Hydrogène: source future d'énergie?, Journées thématiques, Université de Fribourg, 06-03 ○

Hydrogen vibrations in H/D exchanged LiBH₄, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

B-H bond dynamics and anharmonicity and hydrogen vibrations mechanisms in exchanged LiBH₄, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Hydrogen diffusion mechanisms in deuterated LiBH₄, Workshop Density Functional Methods for Experimental Spectroscopy, Oxford, UK, 08-24 thru 28 ◆

Nanocomposite for hydrogen storage: from synthesis to catalysis, 11th International Conference on Advanced Materials, Rio de Janeiro, Brazil, 09-20 thru 25 ○ ●

Stability and Reversibility of Borohydrides for hydrogen storage, International Energy Agency-Hydrogen Implementing Agreement (IEA-HIA), Fundamental and Applied Hydrogen Storage Materials Development (Task 22), Paris, France, 10-11 thru 15 ○

Time and frequency resolved hydrogen dynamics in LiBH₄, MRS Fall meeting (Hydrogen storage symposium) Boston, USA, 11-30 thru 12-04 ◆

Vibrational dynamics of the hydrogen storage material LiBH₄ by infrared pump-probe spectroscopy, MRS Fall meeting (Ultrafast processes in materials science symposium) Boston, USA, 11-30 thru 12-04 ○

Herzog, V.

Hydrogen production by alkaline electrolysis: is there a way to increase its efficiency?, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

XPS study of stibnite (Sb₂S₃) oxidation, 19th Annual VM Goldschmidt Conference, Davos, 06-21 thru 26 ○

Hydrogen production by alkaline electrolysis: investigations of new material for diaphragms, THE INTERNATIONAL SCIENTIFIC AND TECHNICAL SEMINAR «Hydrogen power, as an alternative energy source», Moscow, Russia, 10-21 ○

Empa. Materials science and technology, The International Scientific and technical Seminar «Hydrogen power, as an alternative energy source», Moscow, Russia, 10-22 ○

Future Energy Development and Empa'S Energy Research Program, II International Conference on Hydrogen Storage Technologies, Moscow, Russia, 10-28 ○ ●

Kato, S.

Impact of the surface oxidation of LiBH₄ on the H₂ desorption process, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

and Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Importance of surface properties to hydrogen sorption processes, Maire Curie Research Training Network «COSY», the 6th project meeting, Empa, Dübendorf, 05-04 thru 06 ○

Roles of surface oxide layer in hydrogen desorption processes by AlH₃ and LiBH₄, MRS fall meeting, Boston, USA, 11-30 thru 12-04 ◆

Lodziana, Z.

May borohydrides store hydrogen?, Institut of Nuclear Physics, PAN, Kraków, Poland, 01-06 ○ ●

Structure and stability of borohydrides, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Materials for solid state hydrogen storage, theoretical perspective, ICIQ Tarragona, Spain, 02-23 ○ ●

Hydrogen storage from theoretical perspective, Polish Academy of Sciences, Krakow, Poland, 04-09 ○ ●

Hydrogen storage in complex tetraborohydrides, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ○

Martelli, P.

Identification of structural phases of Ca(BH₄)₂ by nuclear magnetic resonance spectroscopy, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ◆

Stability and Hydrogen Desorption of NaBH₄, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Mauron, Ph.

High-pressure and -temperature DSC (Differential Scanning Calorimeter) for combined PCT (Pressure, Concentration, Temperature) measurements of hydrides, 3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Lithium borohydride and different additives, 3rd Korea-Switzerland Workshop, Jeju Island, Korea, 04-17 thru 18 ○

Borohydrides, Funchy Meeting, Functional Materials for Mobile Hydrogen Storage, Empa Dübendorf, 05-07 ○

Wasserstoff der Energieträger der Zukunft, Thematische Tage, Universität Freiburg, 06-03 ○

High-Pressure and -Temperature XRD Cell for Combined pCT Measurements of Hydrides, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Pendolino, F.

True activation energy of decomposition of Lithium borohydride LiBH_4 ,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ◆

The «Boron effect» on the kinetic of decomposition for light metal borohydride, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

The boron effect in decomposition of LiBH_4 ,

Summer School at the Sandbjerg Estate, Denmark, 08-22 thru 27 ◆

The «Boron effect» in the decomposition of light metal borohydride, Maire Curie Research Training Network «Hydrogen», the 3rd RTN meeting, Hotel Intercontinental, Warschau, Poland, 10-21 thru 25 ○

THE «Boron-effect» On the Kinetics of Decomposition of LiBH_4 , PhD Symposium at Empa, Dübendorf, 11-19 ◆

Remhof, A.

Hydrogen dynamics in LiBH_4 studied by quasielastic neutron scattering,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Dynamics in complex hydrides, 9th International Conference on Quasielastic Neutron Scattering, PSI, Villigen, 02-10 thru 13 ○

Rotational Dynamics in Complex Hydrides, 3rd Korea-Switzerland Workshop, Jeju Island, Korea, 04-17 thru 18 ○

Rotational Motion in NaBH_4 , Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

Rotational Motion in Alkali Borohydrides,

User Meeting, Symposium «Materials for Environment and Energy», PSI, Villigen, 10-13 ○ ●

Hydrogen Dynamics in light Borohydrides,

Maire Curie Research Training Network «Hydrogen», the 3rd RTN meeting, Warschau, Poland, 10-21 thru 25 ○ ●

Synthesis of Borohydrides, First Joint BER II and BESSY II Users' Meeting, Berlin, WISTA, Germany, 11-12 thru 13 ◆

Rongeat, C.

Synthesis of $\text{Ca}(\text{BH}_4)_2$ by reactive ball milling,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ◆

Synthesis of complex hydrides by reactive ball milling,

DPG Spring Meeting, Dresden, Germany, 03-22 thru 27 ○

Synthesis and characterization of $\text{Ca}(\text{BH}_4)_2$,

COSY Young researcher workshop, Alghero, Italy, 05-31 thru 06-02 ○

Synthesis by reactive ball milling and characterization of $\text{Ca}(\text{BH}_4)_2$, Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy, 07-12 thru 17 ◆

$\text{Ca}(\text{BH}_4)_2$ as hydrogen storage material for mobile applications, IFW PhD seminar, Reichenbach, Germany, 09-29 thru 10-02 ○

and COSY meeting, Grenoble, France, 11-02 thru 06 ○

Vogt, U.

High temperature electrolysis by SOEC technology for cost efficient and economical hydrogen production,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

TiO_2 Thick Film Coated Alumina Foams for UV-Light Stimulated Photocatalytic Phenol Mineralization,

17. Symposium Verbundwerkstoffe und Werkstoffverbunde 2009, Bayreuth, Germany, 04-01 thru 03 ○

Solid Oxide Electrolyzer Cells (SOEC) for Hydrogen Production and Post Mortem Analysis of Cell Materials,

Inter. Conf. on Hydrogen Production ICH2P-09, Oshawa, Canada, 05-03 thru 06 ○

and McMaster University, Hamilton, Canada, 05-07 ○ ●

FIB/TEM and EPMA Method as Complementary Technique for Investigations on Solid Oxide Electrolyzer Cells,

8th PACRIM, Vancouver BC, Canada, 05-31 thru 06-05 ○

and Inter. Workshop on High Temperature Water Electrolyses Limiting Factors, Karlsruhe, Germany, 06-09 thru 10 ○

TiO_2 Wet Coating of Ceramic Foams for Photocatalytic Activated Water Purification, 8th PACRIM, Vancouver BC, Canada, 05-31 thru 06-05 ○

Effect of the Microstructure on the Electrical Resistivity in

Al_2O_3 - MoSi_2 Composites, 8th PACRIM, Vancouver BC, Canada, 05-31 thru 06-05 ○ ●

TiO_2 Thick Film Coated Foam Ceramics for UV Light Stimulated Photocatalytic Phenol Decomposition,

EUROMAT 2009, SECC, Glasgow UK, 09-07 thru 10 ○ ●

Wiedenmann, D.

FIB/TEM and EPMA as complementary techniques for the investigation of SOEC and SOFC,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

Characterization of Solid Oxide Electrolyzer Cells,

Hypothesis VIII, Lisbon, Portugal, 04-01 thru 03 ○

Occurrence and compositional variation of High-Na-Al melilites at Oldoinyo Lengai, Tanzania, Inter. Conf., Geochemistry of Alkaline Rocks, Vernadsky Institute Russian Academy of Science, Moscow, 05-11 thru 15 ○

Züttel, A.

Energy Past & Future,

Swiss Investment Manager Circle, Riffelalp Zermatt, 01-16 ○ ●

Mechanism of Complex Hydrides,

3rd Symposium Hydrogen & Energy, Braunwald, 01-25 thru 30 ■ ○

and TOYOTA Motor Corporation, Higashi-Fuji, Japan, 02-23 ○

and Tohoku University, Sendai, Japan, 02-23 ○ and 03-02 ○

Hydrogen Research in Industrial Forum FC Expo,

Tokyo Big Sight, Japan, 02-25 ○

Hydrogen & Energy at Empa,

Academic Forum FC Expo, Tokyo Big Sight, Japan, 02-27 ○

From Metal to Complex Hydrides,

CNRS, Paris, France, 03-17 ○ ●

Züttel, A.
and IUPAC 5th Inter. Symposium on NMS-V & 19th Inter. Symposium
on FCFP-XIX, Shanghai, China, 10-19 ○ ●

From Metallic to Complex Hydrides,
Hypothesis VIII, Lisbon, Portugal, 04-01 thru 03 ○ ●

and Royal Society of Chemistry,
42nd IUPAC Congress, Glasgow, Great Britain, 08-03 ○

Hydrogen the Future Energy Carrier,
University of Eindhoven, NL, 04-14 ○ ●

Complex Hydrides,
3rd Korea-Switzerland Workshop, Jeju Island, Korea, 04-17 thru 18 ○

Stability and reversibility of Boranates M[BH₄]_x for Hydrogen
Storage,
IEA Task 22 Meeting, Jeju Island, South Korea, 04-19 thru 23 ○

Aspects of energy Storage, Past and Future,
PSI: 25th One-Day-Symposium of the Electrochemistry: Learning
from the past to master the future, PSI, Villigen, 05-06 ○ ●

Wasserstoff als Energieträger der Zukunft – Herausforderungen für
die Forschung und Perspektiven für die Mobilität,
S-ce Simon consulting experts, Novotel Zürich-City, Zürich, 05-14 ○ ●

Future Energy Development,
ABB Schweiz AG, Corporate Research, Baden-Dättwil, 05-27 ○ ●

Hydrogen the Future Energy Carrier, Royal Society Scientific
Meeting, London, Great Britain, 06-09 ○ ●

and IBM Research Laboratory, Rüschlikon, 06-18 ○ ●

and Symposium on Materials Challenges for Clean Energy,
NIST, Gaithersburg, USA, 06-22 ○ ●

and 2nd World Materials Summit, Suzhou, China, 10-14 ○ ●

Hydrogen Storage a Materials Challenge,
lecture series «Materials and Energy» of the Graduate School Mainz,
Mainz, Germany, 06-17 ○ ●

Neue Speichertechnologien,
Fachtag Energie: Starke Forschungsförderung in wirtschaftlich
schwierigen Zeiten, Bern, 06-19 ○ ●

The Potential and Limitations of Boro-Hydrides,
UK-SHEC, 2nd Biannual Workshop, Baglan, Great Britain, 07-02 ○ ●

Nanomaterials for energy Storage,
3. Nanoconvention, Swissôtel Zürich-Oerlikon, Zürich, 07-06 ○ ●

Selected Achievements in Europe on Hydrogen Storage Materials,
Gordon Conference «Hydrogen in Metals», Barga (Lucca) Italy,
07-12 thru 17 ○ ●

What we learned from the past to master the future with H₂,
Symposium on Materials for a Sustainable Future, University of
Birmingham, UK, 09-11 ○ ●

and KIST, Seoul, Korea, 10-08 ○ ●

and New WPI Joint Seminar Series, Tohoku University, Sendai,
Japan, 11-06 ○ ●

Hydrogen storage: a materials science challenge for energy,
2nd WUT-NIMS-Empa Workshop 2009, National Institute for
Materials Science, Namiki-site, Tsukuba, Japan, 11-12 ○ ●

Sorption Mechanism and Thermodynamics of complex Hydrides,
Symposium W «Hydrogen Storage Materials» at MRS 2009 Fall
Meeting, Boston, USA, 11-30 thru 12-04 ○ ●

Internal Combustion Engines

Alvarez, R.
Emission Performance and Evolution over Mileage of Modern
Two-Stroke Scooters in Statutory and Real-world Cycles, Particle
Emissions of 2-Stroke Scooter – Science,
Problems, Solutions & Perspectives, Monza, Italy, 06-11 ○ ●

Alvarez, R./Weilenmann, M./Bach, Ch.
Emission Performance and Evolution over Mileage of Modern
Two-Stroke Scooters in Statutory and Real-World Cycles,
06-11 thru 12 ○

Bach, Ch.
A promising fuel option for motor vehicles,
Bio-SNG Conference Zürich, PSI, 05-26 thru 27 ○

Erdgas und Biomethan – Kraftstoffe mit Zukunft;
Symposium «Clean Heavy Duty», TU Graz, 10-19 ○ ●

Dimopoulos, P.
Einsatz von Keramikschaumen als Katalysatorträger im
automobilien Abgas, 7th International CTI Forum: Exhaust Systems,
Car Training Institute, Düsseldorf, Germany, 01-27 thru 28 ○ ●

Hydrogen-Methane Blends for Fuelling Passenger Cars,
Verbrennungsforschung in der Schweiz, Semper Sternwarte ETH,
Zürich, 10-28 ○

Egli, R.
Optimierung des Verbrennungsmotors in einem DI-Erdgas-
Hybrid-Antriebskonzept, Tagung «Gasfahrzeuge» des FKFS und der
IAV, Stuttgart (D), 10-13 thru 14 ○

Liat, A./Dimopoulos, P.
Characterisation of particulate matter captured in diesel particulate
filters – Aerosol and air quality: from local to global scale,
Goldschmidt Conference, Davos, 06-22 thru 26 ◆

Schlienger, P.
hy.muve – hydrogen driven municipal vehicle,
F-Cell Stuttgart, Germany, 09-29 thru 30 ○

Soltic, P.
Effiziente Antriebstechnologien heute und morgen,
Energie Apero Schwyz, 10-19 ○ ●

Sundström, O.
Hybridization of Downsized Engines,
2nd Annual Conference Advanced Charging and Downsizing
Concepts, Wiesbaden, Germany, 03-31 thru 04-01 ○ ●

Thurnheer, Th.
Hydrogen enriched methane fuels: Combustion an loss analysis,
IAMF – International Advanced Mobility Forum, Genève, 03-10 thru
12 ○

Tsinoglou, D./Weilenmann, M./Karpf, A./Stilli J.
Simplified reaction modeling of catalytic converters for easier model parameterization, MODEAT International Symposium on Modeling of exhaust-gas after-treatment, Bad Herrenalb, Germany, 09-14 thru 15 ○

Weilenmann, M./Alvarez, R.
Assessing Real-World Emission Factors of Modern Light Duty Vehicles, Transport and Air Pollution Symposium, Toulouse France, 06-02 thru 04 ○

Solid State Chemistry and Catalysis

Aguirre, M./Gasser, A./Weidekaff, A.
TEP Empa, Dübendorf, 06-30 ■

Aguirre, M./Otal, E./Schaeuble, N./Robert, R./Weidenkaff, A.
Thermoelectric properties of nano-scaled doped ZnO, ACER2009; Symposium 6: Key Materials and Technology for Efficient Direct Thermal-to-Electric Conversion, Daytona, USA, 01-18 ■ ○

Aguirre, M./Shkabko, A./Bocher, L./Weidenkaff, A./Wang, P./Bangert, U.
EELS-HAADF study of SrTiON obtained by microwave plasma, 9th Multinational Conference on Microscopy Dreiländertagung, Graz, A, 08-30 thru 09-04 ◆

Alfaruq, D. S./Weidenkaff, A./Mandaliev, Petar/Hug, P.
Thermoelectric Properties of $\text{CaMn}_{1-x}\text{Nb}_x\text{O}_3 \pm \delta$ (0.01;0.03;0.05; 0.07;0.10), TEP Empa, Dübendorf, 07-24 ◆

Thermoelectric Properties of $\text{CaMn}_{1-x}\text{Nb}_x\text{O}_3 \pm \delta$ (0.01;0.03;0.05; 0.07;0.10), ICT&ECT, Freiburg, DE, 07-26 thru 30 ◆

Brehault, A./Mandaliev, P./Tomeš, P./Weidenkaff, A.
Thermoelectric Properties of $\text{La}_{1-x}\text{Ca}_x\text{MO}_3-\delta$ ($x = 0.1 - 0.6$, $M = \text{Co, Fe}$); GDR meeting, Nancy, F, 07-07 thru 08 ■

Bukowiecki, N./Lienemann, P./Figi, R./Hill, M./Zwicky, C./Richard, A. et al.
Emission factors and source apportionment for abrasion particles produced by road traffic, European Geosciences Union General Assembly, Vienna, A, 04-19 thru 24 ○

Eyssler, A./Ferri, D./Weidenkaff, A.
The influence of the state of Pd on methane combustion in Pd-doped LaFeO_3 perovskites, 21st North American Catalysis Society Meeting, San Francisco, USA, 06-07 thru 12 ○

Ferri, D./Mondelli, C./Grunwaldt, J. D./Baiker, A.
Pd at work during liquid phase alcohol oxidation – combined ATR-IR, XANES, FTIR and UV-vis study, 3rd International Congress on Operando Spectroscopy, Rostock, DE, 04-19 thru 23 ○

Karvonen, L./Valkeapää, M./Liu, R.S./Chen, J.M./Yamauchi, H./Karppinen, M.
Mechanism of Oxygen Intercalation in Defect Perovskites, Thermopower Symposium Dübendorf, 07-24 ◆

O-K and co-L XANES Study on the Oxygen Intercalation in SrCoO_{3-d} , European Conference of Solid State Chemistry XII, Münster, DE, 09-21 ◆

Korsak, O./Ferri, D./Giesshof, J./Weidenkaff, A.
Characterization of the hydrothermal aging effects on precious metals, VIII International Conference, Mechanisms of catalytic reactions, Novosibirsk, Russia, 06-29 thru 07-02 ○

Santhosh Kumar, M./Eyssler, A./Ferri, D./Weidenkaff, A.
Combustion of methane on Pd catalysts: Effect of support on activity, EUROPACAT IX, Salamanca, ES, 08-30 thru 09-04 ◆

Shkabko, A./Aguirre, M./Weidekaff, A.
WO16: 16th Workshop on Oxides Electronics, Tarragona, ES, 10-04 thru 07 ◆

Tomeš, P./Hejtmánek, J./Knížek, K./Aguirre, M./Weidenkaff, A.
Thermodynamic, magnetic and transport properties on FM $\text{Sr}_{1-x}\text{Na}_x\text{RuO}_3$ with respect to weak localization effects, 2009 Swiss Workshop on Materials with Novel Electronic Properties Manep, Les Diablerets, 08-27 ◆

Tomeš, P./Hejtmánek, J./Knížek, K./Robert, R./Bocher, L./Aguirre, M. et al.
Thermoelectric and magnetic properties of $\text{Sr}_{1-x}\text{Na}_x\text{RuO}_3$ ($x = 0 - 0.25$), 33rd International Conference & Exposition on Advanced Ceramics & Composites, Daytona Beach, USA, 01-22 ○

Tomeš, P./Robert, R./Aguirre, M./Hejtmánek, J./Weidenkaff, A.
Thermoelectric and magnetic properties of $\text{PrCo}_{1-x}\text{Ni}_x\text{O}_3$ ($x = 0.0 - 0.7$), 28th International Conference on Thermoelectrics and 7th European Conference on Thermoelectrics, Freiburg, DE, 07-30 ○

Tomeš, P./Trottmann, M./Suter, C./Weidenkaff, A.
Novel Thermoelectric Materials and Applications; Direct conversion of simulated solar radiation into electrical energy by thermoelectric oxide modules (TOM), 2nd Thermopower Symposium CH – 2009, Empa, Dübendorf, 07-24 ■ ◆

Wei, X./Hug, P./Ferri/D./Trottmann, M./Weidenkaff, A.
Nanoscaled perovskite-type oxides for catalytic applications prepared by ultrasound spray combustion, EUROPACAT IX, Salamanca, ES, 08-30 thru 09-04 ◆

Weidenkaff, A.
Nanostructured layered thermoelectric oxides, Jahrestagung der DPG, Dresden, DE, 03-26 ○ ●

Thermoelectrical materials: new perspectives for energy harvesting, NANOMATBern, 06-26 ○ ●

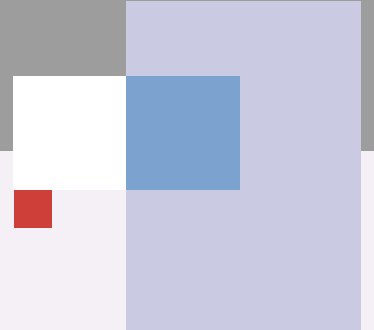
Development of perovskite-type thermoelectric ceramics, Int. Conf. Thermoelectrics ICT-ECT, Freiburg, DE, 07-29 ○ ●

Oxides and oxynitrides, 6th Petite Workshop on Defect Chemical Nature of Energy Materials, Damyang, South Korea, 09-07 ○ ●

Perovskite-type composite materials, Composites at Lake Louise (CALL) conference, Lake Louise, Canada, 10-29 ○ ●

Empa Activities 2009/2010

Teaching-Activities



Swiss Federal
Institute of Technology,
Zurich (ETH)

Architecture	Carmeliet, J.	Building Physics: Heat; Moisture and Durability; Urban Physics
	Derome, D.	Building Physics 3
	Manz, H.	Building Physics: Acoustics; Energy & Comfort
	Richter, K.	Baustoffkunde I + II: Holz
	von Trzebiatowski, O.	Baustoffkunde II: Metallische Werkstoffe
		Baustofftechnologie I: Metallische Werkstoffe
	Winnefeld, F.	Mineral building materials in Baustoffe
	Eggenschwiler, K.	Raumakustik
Biology	Rossi, R.	Thermoregulation
Chemistry and Applied Biosciences	Ferri, D.	Surface science and methods in catalysis
	Thöny-Meyer, L.	Biologie I: Genetik
	Zinn, M.	Bioprocess Engineering
Civil Engineering	Lura, P.	Shrinkage and Cracking of Concrete
	Steiger, R.	Holz- und Holzwerkstoffe
	Zimmermann, T.	Materialtechnologie Holz
	Eggenschwiler, K.	Lärmbekämpfung
Earth Sciences	Liat, A.	Advanced Geochronology
Electrical Engineering	Tiwari, A.	Solar cells
Environmental Sciences	Brunner, D.	Einführung in die Chemie und Physik der Atmosphäre
	Gottschalk, F.	Introduction to decision analysis and game theory
	Hofer, P.	Luftreinhaltung 1 + 2a
	Hofer, P.	Luftreinhaltung Iib
	Knöri, C.	Modellierung von Mensch-Umweltsystemen
	Nowack, B.	Gesellschaftlicher Umgang mit aktuellen Umweltrisiken
Geomatics Engineering	Brunner, A. J.	Kunststoffe im Bauwesen Werkstoffe III
	Motavalli, M.	Fibre composite material in structural Engineering
	Partl, M.	Bituminous Materials
Humanities, Social and Political Sciences	Simon, K.	Farbe im Digitalen Publizieren Technik des Digitalen Publizierens
Information Technology and Electrical Engineering	Heutschi, K.	Akustik 1 + 2
	Heutschi, K.	Akustisches Kolloquium
	Sennhauser, U.,	Physik der Ausfälle und Ausfallanalyse elektronischer Schaltungen
	Grossmann, G.	
	Sennhauser, U.,	Zuverlässigkeit von Geräten und Systemen
	Held, M.	
Information Technology and Electrical Engineering	Heutschi, K.	Akustisches Kolloquium
	Heutschi, K.	Akustik 1 und 2
	Sennhauser, U.,	Physik der Ausfälle und Ausfallanalyse elektronischer Schaltungen
	Grossmann, G.	
	Sennhauser, U.,	Zuverlässigkeit von Geräten u. Systemen
	Held, M.	
Materials Science	Barbezat, M.	Integrity of Materials and Structures
	Clemens, F.	Advanced Composite and Adaptive Material Systems Verbundwerkstoffe
	Ernst, K.-H.	Biomineralization
	Graule, T.	Integrity of Materials and Structures Keramik I

Teaching-Activities

Swiss Federal Institute of Technology, Zurich (ETH)		Heuberger, M.	Biomaterial Surfaces: Properties and Characterization Material Properties and Characterization Surfaces and Interfaces
		Jaeger, D.,	Praktikum III
		Patscheider, J.	
		Keller, B.	Surface and Interface Analysis
		Krug, H.	Frontiers in Nanotechnology
		Kübler, J.	Mechanical Properties of Ceramics
		Mandaliev, P.	Die Röntgenfluoreszenzanalyse (RFA), Supervision, X-ray fluorescence analysis
		Maniura, K.	Biocompatible Materials I + II
		Mayerhofer, K.-E.	Biomaterial Surfaces: Properties and Characterization
		Patscheider, J.	Functional Surfaces
		Roth, M.	Integrity of materials and structures
		Schmutz, P.	Corrosion and Durability of Engineering Materials
		Terrasi, G.,	Advanced Composites and Adaptive Material Systems
		Clemens, F.	
	Mechanical and Process Engineering	Campanile, L. F.	Aeroelasticity
		Dimopoulos E.	Abgasnachbehandlung in modernen Dieselmotoren
		Eggenschwiler, P.	
		Hack, E.,	Optical Methods in Experimental Mechanics
		Brönnimann, R.	
Civil and Environmental Engineering		Koller, R.	Betriebsfestigkeit
		Kovacs, G.	Seilbahntechnik
		Mazza, E.	Varia
		Soltic, P.	Control-Oriented Thermal Modeling of I.C. Engines
		Terrasi, G.	Engineering Design with Polymers and Advanced Composites
		Wäger, P.	Produktion elektrischer und elektronischer Komponenten
		Weisse, B.	Structural Design
		Reimann, S.	Measurements of air pollutants
	Materials Science and Engineering	Araujo de Castro, F.	Organic semiconductors
		Lüthi, T.	Non-destructive Evaluation Methods
Höhere Fachschule der graphischen Industrie, Wallisellen		Michler, J.	Materials Selection
		Nüesch, F.	Organic semiconductors
		Vaucher, S.,	Materials Selection
		Siegmann, S.,	
		Michler, J.,	
		Wasmer, K.	
		Hischier, R.	Ökologie
	Pädagogische Hochschule Zentralschweiz	Heuberger, M.	Nanotechnologie
	Technical College TSH	Partl, M.	Baustoffkunde
	Timber Engineering	Richter, K.	Gluing Technology
Technical University Graz (AT)	Maschinenbau & Verfahrenstechnik	Leinenbach, C.	Metallische Hochleistungswerkstoffe
	Wissenschaftszentrum Weihenstephan	Jacob, P.	Einführung in die Rasterelektronenmikroskopie
	Verfahrens- und Umwelttechnik	Graule, T.	Nano- und Biokeramik
	Materials Science	Janczak-Rusch, J.	Joining Materials
	Arctic Technology	Reimann, S.	Measurements of air pollutants within the Arctic environment
	ESONN'2006', Grenoble	Hug, H. J.	Scanning Probe Microscopy
	Institute of Environmental Technology	Studer, M.	Messpraktikum Umweltakustik/Bauakustik
	Energie	Nüesch, F.	Solartechnologien Made in Switzerland
	Bau und Gestaltung	Eggenschwiler, K., Krajci, L.	Bauphysik II
		Weber, A.	Bauphysik
Technical University Kaiserslautern (DE)			
Technical University München (DE)			
Technical University of Freiberg (DE)			
Technical University of Warschau (PL)			
UNIS, Longyearbyen, Spitzbergen (NO)			
Université Joseph Fourier, Grenoble, (FR)			
University of Applied Sciences, Basel			
University of Applied Sciences, Brugg			
University of Applied Sciences, Chur			

Teaching-Activities

University of Applied Sciences, Dornbirn (AT)	Master Mikro- und Nanotechnologie der Euregio Bodensee	Broenniman, R. , Hack, E.	Micro- and Nanomanipulation: Optical, Piezo
		Hug, H. J. , Müller, U. , Norris, A.	Kurs Fachhochschule
		Fasel, R. , Ruffieux, P.	Scanning Tunneling Microscopy
		Widmer, R.	
		Gröning, P.	Introduction: Spectroscopy Tribology
		Gröning, P.	Introduction: Atom- and Quantumphysics
		Widmer, R.	
		Graule, T.	Nanopowders and Nanocomposites
		Sennhauser, U. , Jacob, P.	Micro- and Nanomanipulation: FIB, Laser
		Pfyl, K.	Etudes avancées en génie parasismique
University of Applied Sciences, Fribourg	Bautechnik	Piskoty, G.	Metallische Baustoffe
University of Applied Sciences, Horw	HLK	Dorer, V.	Natural and hybrid ventilation
University of Applied Sciences, Lucerne	Bautechnik	Ghazi Wakili K. , Frank Th. , Hugi E.	Bauteil-Gebäudesimulationen/ Energie/Brandschutz
		Krajci, L.	Bauphysik und Baustoffe
		Loser, R.	Baustoffe: Beton und Bindemittel
	Konstruktiver Ingenieurbau	Pfyl, K.	CAS Erdbeben Ingenieurwesen
	Mechanical Engineering	Weilenmann, M.	Messtechnik
University of Applied Sciences, Rapperswil	Technology	Gauch, M.	Environmental management and resources
University of Applied Sciences, St. Gall		Hischier, R. , Wäger, P.	
University of Applied Sciences, Wädenswil	Biotechnology	Buchmann, B.	Air Pollution
	Chemie und biologische Chemie	Nagel, M.	Industrielle Chemie II Makromolekulare Chemie
	AME	Affolter, Ch. , Weisse, Be. , Piskoty, G.	Werkstofftechnik und Chemie I
University of Applied Sciences, Winterthur	IMPE	Koebel, M.	Chemistry for engineers
	Civil Engineering	Loser, R.	Materialtechnologie: Mineralische Baustoffe
		Raab, C. , Zimmermann, T.	Materialtechnologie: Asphalt und Bitumen Materialtechnologie: Holz
University of Basel	Environmental Sciences	Reimann, S.	Umweltsystem Atmosphäre: Luftverschmutzung und Klimaerwärmung
	Physics	Hug, H.J.	Physik III
University of Berne		Hug, H.J. , Marioni, M.	Magnetismus und magnetische Materialien
	Chemistry	Weidenkaff, A.	Materials for Energy Technologies
		Fasel, R.	Physics and Chemistry of Surfaces
		Meyer, V.	Chromatographic Analysis
University of Freiburg (DE)	Oeschger-Center	Krug, H. , Wick, P.	Climate and Air Pollutants
	Forest Sciences	Schubert, M.	Dendrologie
		Schwarze, F.	Holzpathologie
		Schwarze, F.	Holzschutz I + II
	Geowissenschaften	Vogt, U.	Keramische Materialien für Energie und Ressourcen Modern Ceramics, Cements, and Glasses
University of Fribourg	Umweltwissenschaften	Züttel, A.	Ressourcen
University of Graz (AT)	Systemwissenschaften	Knöri, C.	Qualitative Systemwissenschaften
University of Klagenfurt (AT)	Interdisziplinäre Forschung und Fortbildung	Hilty, L.	Nachhaltigkeit und neue Medien
University of Loeben (AT)	Allgemeine, analytische und physikalische Chemie	Rösslein, M.	Mess- und Ergebnisunsicherheit Prozessanalytik und Prozessfähigkeit
University of Loughborough (UK)	CREST	Tiwari, A.	Solar cells
University of Tehran (IR)	Civil Engineering	Motavalli, M.	Application of Polymer Composite Materials in Structural Engineering
University of the Arts, Zurich	Music	Heutschi, K.	Audiotechnik
University of Zurich	Chemie	Ernst, K.-H.	Biomineralization

Teaching-Activities

University of Zurich

Chemie

[Hilty, L.](#)

Informatik und Gesellschaft (HS 2009), Informatik und Ethik (FS 2009)

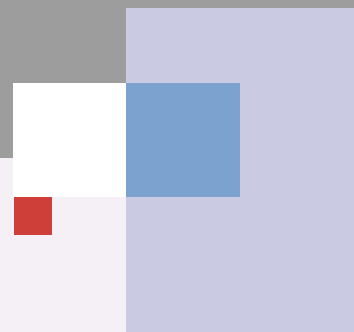
Pre- and Protohistory

[Senn, M.](#)

Archäometrie des Eisens

Empa Activities 2009/2010

PHD Theses



Acoustics

Awietjan, Stefan Filip

[Manufacture, structure and properties of magnetorheological elastomers](#) Co-Supervisor Empa: Dr Stanislaw Pietrzko

Warsaw University of Technology (PL), Int. PhD School CH-PL ◆

Advanced Fibers

Chatterjee, Sanjukta

[Structural and mechanical effects of carbon nanotubes in high-tensile strength thermoplastic polymer fibers](#)

Supervisor Prof. Dr Paul Brühwiler

Co-Supervisor: Dr Rudolf Hufenus

Uppsala University (SE) ◆

Guex, Anne Géraldine

[Development and functionalisation of electrospun scaffolds for contractile artificial muscle constructs for cardiac repair](#)

Co-Supervisor: Dr Giuseppino Fortunato

University of Basel ◆

Körner, Enrico

[Multifunctional antibacterial plasma polymer coatings](#)

Co-Supervisor Empa: Dr Dirk Hegemann

University of Freiburg (D), Dept. of Microsystems Engineering ▼

Salimova, Viktoriya

[Studies on Pyrolysis Chemistry of Cellulose in the Presence of Phosphorus and Synergistic Additives](#)

Co-Supervisor Empa: Dr. Manfred Heuberger

ETH Zurich, Dept. Chemistry and Applied Biosciences ◆

Schurtenberger, Erich

[Thermodynamics of Confined Fluids](#)

Co-Supervisor Empa: Dr Manfred Heuberger

ETH Zurich, Dept. of Materials ▼

Advanced Materials Processings

Bidiville, Adrien

[Wafer sawing processes: from microscopic phenomena to macroscopic properties](#)

Co-Supervisor Empa: Dr Kilian Wasmer

EPF Lausanne ◆

Dubach, Alban

[Nanoscale characterization of mechanical properties in bulk metallic glasses](#)

Co-Supervisor Empa: Dr Johann Michler

ETH Zurich ▼

Air Pollution/ Environmental Technology

Bond, Steven

[Sources and Sinks of Hydrogen in the Atmosphere during Transition to Hydrogen-based Transportation](#)

Co-Supervisor Empa: Dr Stefan Reiman, Dr Martin Vollmer,

Dr Martin Steinbacher

ETH Zurich, Dept. Chemistry and Applied Biosciences ◆

Gianini, Matthias

[Quellenzuordnungen von Aerosolen aus der Verbrennung von Biomasse](#) Co-Supervisor Empa: Dr Christoph Hügli

ETH Zurich, Institute for Atmospheric and Climate Science ◆

Keller, Christoph

[Assessment of European emissions of non-CO₂ greenhouse gases by a combination of continuous measurements, transport models and Rn-222 emission maps](#)

Co-Supervisor Empa: Dr Stefan Reimann, Dr Dominik Brunner

ETH Zurich, Institute for Atmospheric and Climate Science ◆

Knote, Christoph

[Regional scale impacts of changing emissions on air quality and climate](#)

Co-Supervisor Empa: Dr Dominik Brunner

ETH Zurich, Institute for Atmospheric and Climate Science ◆

Schrade, Sabine

[Emissions of PM₁₀ and Ammonia from open bovine barns](#)

Co-Supervisor Empa: Dr Lukas Emmenegger

Christian-Albrechts-University of Kiel (DE) ▼

Shubha Pandey

[Trends investigation of Nitrogen compounds at Jungfraujoch](#)

Co-Supervisor Empa: Dr. Dominik Brunner

ETH Zurich, Institute for Atmospheric and Climate Science ◆

Zhou, Yipin

[Satellite Cartography of Air Quality over Switzerland](#)

Co-Supervisor Empa: Dr Dominik Brunner

ETH Zurich, Institute for Atmospheric and Climate Science ◆

◆ in progress

▼ submitted in 2009

Analytical Chemistry

Hagendorfer, Harald

Emission processes of nanoparticles at material-environment-interface – Field Flow Fractionation coupling to LIBD and ICPMS

Co-Supervisor Empa: Dr Andrea Ulrich

EPF Lausanne ◆

Homazava, Nadzeya

Development of a micro-analytical technique for spatially resolved and element specific in-situ analysis of micro corrosion processes (MiCorrAna)

Co-Supervisor Empa: Dr Andrea Ulrich

University of Bern ▼

Müller, Claudia

Perfluorinated Chemicals nPFCs from Materials in the Environment

Co-Supervisor Empa: Dr Andreas C. Gerecke

ETH Zurich ◆

Ott, Naomi

Development of a novel micro-analytical technique for elemental, locally and time resolved in-situ investigations of micro corrosion processes using a microflow capillary online coupled via flow injection to an inductively plasma mass spectrometry with potentialstatic control

Co-Supervisor Empa: Dr Andrea Ulrich

University of Bern ◆

Biomaterials

Follonier, Stéphanie

Global gene expression and physiological state of PHA-producing *P. putida* under conditions prevailing in high pressure bioreactors

Co-Supervisor Empa: Dr Manfred Zinn

ETH Zurich, Dept. of Mechanical and Process Engineering ◆

Gattlen, Jasmin

Reproducible biofilm formation

Co-Supervisor Empa: Dr Manfred Zinn, Dr Laurie Mauchlaire

University of Zurich, Dept. Microbiology ◆

Idascek, Joana

Development of a scaffold for bone tissue regeneration and engineering

Co-Supervisor Empa: Dr Manfred Zinn, Dr. Arie Bruinink

Warsaw University of Technology (PL) ◆

Ketikidis, Pantelis

Interfacial behavior of biocompatible poly(hydroxyalkanoate)-based polymers for complex materials development

Co-Supervisor Empa: Dr Manfred Zinn

University of Basel, Department of Chemistry ◆

Le Meur, Sylvaine

Production of polyhydroxyalkanoates (PHAs) from cheap waste resources

Co-Supervisor Empa: Dr Qun Ren, Dr Manfred Zinn

ETH Zurich, Dep. Umweltwissenschaften (UWIS) ◆

Building Science & Technology

Allegrini, Jonas

Urban climate

Co-Supervisor Empa: Viktor Dorer

ETH Zurich Dept. Bau, Umwelt und Geomatik ◆

Artmann, Nikolai

Passive cooling by night-time ventilation using climate responsive elements

Co-Supervisor Empa: Dr Heinrich Manz

University Aalborg (DK) Hybrid Ventilation Centre ▼

Derluyn, Hannelore

Salt crystallisation in porous media

Supervisor: Prof. Jan Carmeliet

Co-Supervisor Empa: Dr Rosa Maria Espinosa

ETH Zurich, Dept. Bau, Umwelt und Geomatik ◆

Goto, Yutaka

Sustainable building envelopes for Japan

Co-Supervisor Empa: Dr Karim Ghazi Wakili

ETH Zurich, Dept. Bau, Umwelt und Geomatik ◆

Ludwig, Carsten

Glasverstärkte Kunststoffprofile unter hoher thermischer und mechanischer Beanspruchung

Co-Supervisor Empa: Prof. Urs Meier, Dr Erich Hugi, Dr Karim

Ghazi Wakili

University of Stuttgart (DE), Inst. für Tragkonstruktionen ▼

Saneinejad, Saba

Urban climate

ETH Zurich, Dep. Bau, Umwelt und Geomatik ◆

Center for Synergetic Structures

Rampf, Markus

Mechanische Charakterisierung und Optimierung selbstreparierender Membranen für pneumatische Strukturen

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Rolf Luchsinger

ETH Zurich, Dept. of Mechanical and Process Engineering ◆

Teutsch, Uwe

Experimentelle und theoretische Untersuchungen des Tragverhaltens von Tensairity Trägern unter Biegelast

Co-Supervisor Empa: Dr Rolf Luchsinger

ETH Zurich, Institut für Baustatik und Konstruktion ▼

Concrete/Construction Chemistry

Deschner, Florian

Enhancing the reactivity of Portland fly ash cement

Co-Supervisor Empa: Dr Frank Winnefeld, Dr Barbara Lothenbach

Universität Erlangen (DE) ◆

Dilnesa, Belay

Fate of iron during hydration of cement

Co-Supervisor Empa: Dr Barbara Lothenbach

EPF Lausanne ◆

Ferrari, Lucia

Cement superplasticizer interaction studied by atomic force microscopy

Co-Supervisor Empa: Dr Josef Kaufmann, Dr Frank Winnefeld

Technische Universität München (DE) ◆

Kunther, Wolfgang

[Resistance against sulfate attack](#)

Co-Supervisor Empa: Dr Barbara Lothenbach, Dr Andreas Leemann
EPF Lausanne ♦

Wu, Wenwang

[4D experimental investigation of hygro-mechanical behaviour of wood on cellular scale](#)

Co-Supervisor Empa: Prof. Jan Carmeliet
ETH Zurich ♦

Corrosion and Materials Integrity

Breimesser, Matthias

[Elektrochemische Rauschanalyse von lokalen Korrosionsprozessen](#)

Co-Supervisor Empa: Dr Patrik Schmutz, Dr Thomas Suter
Universität Erlangen (DE) ♦

Liu, Ming

[Magnesium Corrosion and Intermetallic reactivity](#)

Co-Supervisor Empa: Dr Patrik Schmutz
University of Queensland, Brisbane (AU) ♦

Pawelkiewicz, Magdalena

[Unified description of mass transport and reactions in lead-free solder joints during their formation and service \(oxidation\)](#)

Supervisor Empa: Prof. Dr Jolanta Janczak-Rusch
Co-Supervisor Empa: Dr Patrik Schmutz
Warsaw University of Technology (PL), Int. PhD School CH-PL ♦

Ura, Ewa

[CorQuasi Corrosion and passivation mechanisms of Quasycrystalline approximants](#)

Co-Supervisor Empa: Dr Patrik Schmutz
Warsaw University of Technology (PL), Int. PhD School CH-PL ♦

v. Trzebiatowski, Oliver

[Investigation of the structural defects influence on pure Nickel dissolution processes](#)

Co-Supervisor Empa: Dr Thomas Suter
Universität Erlangen (DE) ♦

Electronics/Metrology/Reliability

Callegari, Victor

[Nanotechnology / Photonics](#)

Co-Supervisor Empa: Dr Urs Sennhauser
ETH Zurich, Information Technology and Electrical Engineering Dept. ▼

Gattiker, Felix

[Biosensor](#)

Co-Supervisor Empa: Dr Urs Sennhauser, Dr Jürg Neuenschwander
ETH Zurich, Mechanical and Process Engineering Dept. ▼

Iwaniuk, Daniel

[Adaptive control of laser speckle fields in microscopy](#)

Co-Supervisor Empa: Dr Erwin Hack
EPF Lausanne, Civil and Environmental Engineering ♦

Lotito, Valeria

[in SNOM: Scanning Near-Field Optical Microscopy](#)

Co-Supervisor Empa: Dr Urs Sennhauser
ETH Zurich ♦

Mooser, René

[6D-deformation analysis from CT data sets](#)

Co-Supervisor Empa: Dr Urs Sennhauser
ETH Zurich, Dept. of Information Technology and Electrical Engineering ♦

Sanabria, Sergio

[US Glued Timber](#)

Co-Supervisor Empa: Dr Urs Sennhauser, Dr Jürg Neuenschwander
ETH Zurich, Inst. for Building Materials ♦

Scholder, Olivier

[Platun](#)

Supervisor: Prof. Gian-Luca Bona
Co-Supervisor Empa: Dr Urs Sennhauser
ETH Zurich, Dept. of Information Technology and Electrical Engineering ♦

Functional Polymers

Fan, Bin

[Cyanine based organic solar cells](#)

Co-Supervisor Empa: Dr Roland Hany
EPF Lausanne ♦

Fardel, Romain

[Patterned polymer multilayer light-emitting device fabrication using laser induced forward transfer](#)

Co-Supervisor Empa: Dr Frank Nüesch
ETH Zurich ▼

Kuster, Simon

[Structure-property relationship in single, double and multi squaraine dye unit systems](#)

Co-Supervisor Empa: Dr Thomas Geiger
ETH Zurich, Dept. Chemie und angewandte Biowissenschaften ♦

Molberg, Martin

[Silicone-Composite for Low-Voltage Dielectric Elastomer Actuator](#)

Co-Supervisor Empa: Dr Christiane Löwe
Technische Universität Darmstadt (DE), Material- und Geowissenschaften ▼

Shaw-Stewart, James

[The effect of different laser pulse length upon laser induced forward transfer using triazene polymer as a sacrificial layer](#)

Co-Supervisor Empa: Dr Frank Nüesch
ETH Zurich ♦

High Performance Ceramics

Bora, Debajeet Kumar

[Synthesis and assessment of mixed metal-oxide nanoparticles and films for solar photo-electrochemical hydrogen fuel production](#)

Co-Supervisor Empa: Dr Artur Braun
University of Basel ♦

Castillo, Nikolaos

[Photocatalytic cleaning and sterilisation applications by doped TiO₂ and novel photoactive materials under visible light](#)

Co-Supervisor Empa: Dr Thomas Graule
EPF Lausanne ♦

Chen, Qianli

Effect of lattice volume and imperfections on the proton-photon coupling in proton conducting lanthanide transition metal oxides: High pressure and high temperature neutron and impedance studies

Co-Supervisor Empa: Dr Artur Braun
EPF Lausanne ◆

Erat, Selma

Investigation of the driving forces of metal-insulator transitions in LaSrFeNi-oxides: Correlation of crystallographic structure, electronic, structure and transport properties

Co-Supervisor Empa: Dr Artur Braun
ETH Zurich ◆

Heinecke, Judit

Novel shaping of polymer/ceramic nanocomposites

Co-Supervisor Empa: Dr Thomas Graule
Technische Universität Freiberg (DE) ◆

Karageorgakis, Nikolaos

Formation and Characterisation of thin films for Solid Oxide Fuel Cells (SOFC) and sensors

Co-Supervisor Empa: Dr Thomas Graule
ETH Zurich ◆

Michen, Benjamin

Aquatische Virenfiltration durch physikalisch-chemische Adsorption

Co-Supervisor Empa: Dr Thomas Graule
Technische Universität Freiberg (DE) ▼

Rojas Ismael, Marina

CoExPiez (Co-Extrusion of Piezoelectric Ceramic Materials)

Co-Supervisor Empa: Dr Frank Clemens
Universität Karlsruhe (DE) ▼

Salehi, Mahdi

Development of thin tubular dead-end membranes for oxygen separation and syngas production

Co-Supervisor Empa: Dr Frank Clemens
University of Fribourg ◆

Wozniak, Maciej

Nanopowder processing for microreactor development

Co-Supervisor Empa: Dr Thomas Graule
AGH University Cracow (PL), Int. Phd School CH-PL ▼

Hydrogen & Energy

Buchter, Florian

Experimental and theoretical study of the structure and electronic charge density of p-element complex deuterides.

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Ulrich Vogt
University of Fribourg, Physics Dept. ▼

Gorbar, Michal

Developments of new membranes based on inorganic materials for electrolyser cells

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ◆

Kato, Shunsuke

Physical Properties of Complex Hydrides and Hydrogen Sorption Mechanism

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ◆

Martelli, Pascal

Electronic and Atomic structure of Complex Hydrides

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ◆

Matsunaga, Tomoya

Stability and Sorption Mechanism of Complex Hydrides

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ▼

Pendolino, Flavio

Hydrogen Mobility in Complex Hydrides

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ◆

Rongeat, Carine

Mechano-chemical synthesis and characterisation of complex hydrides for solid state hydrogen storage

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Andreas Borgschulte
University of Fribourg, Physics Dept. ◆

Wiedenmann, Daniel

Characterization and development of new membranes for electrolyzers and fuel cell applications

Supervisor Empa: Prof. Dr Andreas Züttel
Co-Supervisor Empa: Dr Ulrich Vogt
University of Fribourg, Physics Dept. ◆

Internal Combustion Engines

Egli, Reto

Numerical and experimental optimisation of the combustion process and exhaust gas treatment of a direct injected natural gas engine

Co-Supervisor Empa: Dr Patrik Soltic
ETH Zurich, Labor für Aerothermochemie und Verbrennungssysteme ◆

Sundström, Olle

Optimal control of a parallel hybrid powertrain with a turbocharged internal combustion engine

Co-Supervisor Empa: Dr Patrik Soltic
ETH Zurich, Inst. für Mess- und Regeltechnik ▼

Joining and Interface Technology

Bissig, Vinzenz

Principles of brazing with nanostructured filler metals

Supervisor Empa: Prof. Dr Jolanta Janczak-Rusch
Int. PhD School CH-PL ▼

Buhl, Sebastian

Interfaces of brazed diamonds

Co-Supervisor Empa: Dr Christian Leinenbach
ETH Zurich, Institute for Machine Tools and Manufacturing ◆

Duarte, Liliana

[Fe-Ni-Ti-aluminides](#)

Co-Supervisor Empa: Dr Christian Leinenbach

ETH Zurich, Inst. of Metals ▼

Pawelkiewicz, Magdalena

[Unified description of mass transport and reactions in lead-free soldering during their formation and service](#)

Supervisor Empa: Prof. Dr Jolanta Janczak-Rusch

Co-Supervisor Empa: Dr P. Schmutz

Warsaw University of Technology (PL), Int. PhD School CH-PL ▼

Sivasubramanian, Venkatesh

[Lead-free Solders](#) Supervisor Empa: Prof. Dr Jolanta Janczak-Rusch

EPF Lausanne, Mechanical Engineering Dept. ▼

Sosnowska, Karolina

[Sacrificial Passivation](#)

Supervisor Empa: Prof. Dr Jolanta Janczak-Rusch

Warsaw University of Technology (PL), Int. PhD School CH-PL ◆

Materials-Biology Interactions

Born, Anne-Kathrin

[Fluoreszenzproteine für die Entwicklung eines Biosensors](#)

Co-Supervisor Empa: Dr Katharina Maniura-Weber

ETH Zurich, Materials Dept. ◆

Fischer, Kathrin

[Genotoxicity of nanomaterials](#)

Supervisor Empa: Prof. Dr Harald Krug

KIT, Institute for Technology, Karlsruhe (DE) ▼

Gasser, Michael

[CNT-Protein interactions and biological effects of CNT](#)

Co-Supervisor Empa: Dr Peter Wick

Universität Bern Bretscher Center ◆

Idascek, Joana

[Development of a scaffold for bone tissue regeneration and engineering](#) Co-Supervisor Empa: Dr Arie Bruinink

Warsaw University of Technology (PL), Int. PhD School CH-PL ◆

Moczulska, Maryla

[Development of Textile Scaffolds for Bone Tissue Engineering](#)

Co-Supervisor Empa: Dr Arie Bruinink

Int. PhD School CH-PL) ◆

Müller, Martin

[Entwicklung eines Rechners: Messunsicherheit für beliebige physikalische und biologische Experimente](#)

Co-Supervisor Empa: Dr Matthias Rösslein

ETH Zurich, Inst. for Computational Science ▼

Rottmar, Markus

[Studies of cells in 3D-microwells](#)

Co-Supervisor Empa: Dr Katharina Maniura

ETH Zurich, Materials Dept. ◆

Wolf, Marco

[Expertensystem: Messunsicherheiten aus verschiedenen Messstrategien mit geringen Datenmengen](#)

Co-Supervisor Empa: Dr Matthias Rösslein

ETH Zurich, Inst. for Computational Science ▼

Mechanical Systems Engineering

Abouhossein, Alireza

[Simulation des menschlichen Bewegungsapparates](#)

Co-Supervisor Empa: Bernhard Weisse

University of Bern, MEM-Center ▼

Birchmeier, Marcel

[Multifunctional use of AFC elements](#)

Co-Supervisor Empa: Dr Andreas J. Brunner

ETH Zurich, Inst. for Mechanical Systems ▼

Dürager, Christian

[Development of a Structural Health Monitoring System for](#)

[Aerospace Application](#) Co-Supervisor Empa: Dr Andreas J. Brunner

ETH Zurich, Institut für Atomatik ◆

Jordi, Christa

[Entwicklung und Bau eines Prallluftschiffes mit undulatorischem Antrieb basierend auf elektroaktiven Polymeren](#)

Co-Supervisor Empa: Silvain Michel

ETH Zurich, Inst. for Mechanical Systems ◆

Mechanics for Modelling and Simulation

Belloli, Alberto

[Methods and Techniques in Composite Design for Structural Vibration Suppression via Shunted Piezoelectric Elements](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

ETH Zurich, Dept. of Mechanical and Process Engineering ▼

Bergamini, Andrea

[Electrostatic Modification of the bending stiffness of adaptive structures](#)

ETH Zurich ▼

Binda, Luca

[Advanced Creep Damage Assessment](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ▼

Ehrhardt, Frank

[Lifetime assessment of 700°C steam turbine weldments](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ◆

Hasse, Alexander

[Optimized solutions for compliant systems](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Flavio Campanile

ETH Zurich ◆

Hosseini, Ehsan

[Prediction of long time creep rupture properties of welded joints using the results of short duration creep crack incubation tests](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ◆

Jähne, René

[Shape memory adaptive structures](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Flavio Campanile

ETH Zurich ◆

Mayer, Thomas

[Microstructural evolution during fatigue \(2CrMoNiWV\)](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ◆

Pham-Minh, Son

[Microstructural evolution during fatigue \(17Cr12Ni2Mo\)](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ◆

Radosavljevic, Marko

[Creep-fatigue Assessment of High Temperature Steam Turbine Rotors](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Stuart Holdsworth

ETH Zurich ◆

Schmidt, Arne

[Reality of electroactive polymers](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Flavio Campanile

ETH Zurich ◆

Thwapiah, Ghalib

[Aeroelastic effects and adaptive wings](#)

Supervisor Empa: Prof. Dr Edoardo Mazza

Co-Supervisor Empa: Dr Flavio Campanile

ETH Zurich ◆

Mechanics of Materials and Nanostructures

Barisone, Elisa

[Pulsed RF GD analysis of non-conductive thin films](#)

Co-Supervisor Empa: Johann Michler

Universite Paul Sabatier, Toulouse (FR) ▼

Bernau, Laurent

[Mikromechanik von DNA-Molekülen](#)

Co-Supervisor Empa: Dr Ivo Utke

EPF Lausanne ◆

Radice, Simona

[Preparation and electrophoretic deposition \(EPD\) of composite TiO₂-polystyrene particles; preparation of multi-scaled structured surfaces, EPD deposition mechanism](#)

Co-Supervisor Empa: Dr Johann Michler

EPF Lausanne, Metallurgical Chemistry Lab ▼

Rzepiejewska, Karolina

[Biomimetic layers for the controlling the adhesion that enables safe movement on flat, vertical and slippery surfaces](#)

Co-Supervisor Empa: Dr Johann Michler

University of Technology, Warsaw (PL) ◆

Zhang, Dongfeng

[Nanotensile testing system for studying nanostructures inside SEM/TEM](#)

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[Gamut Mapping as Optimization Problem](#)

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[Modellierung von Lichtstreuung](#)

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[Modification of surfaces with bowl-shaped molecules](#)

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[Mechanisms of Aqueous Lubrication with Amphiphilic Polymers](#)

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[Interfaces between Nanostructured metal nitrides and Si₃N₄](#)

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[Exchange Bias Effect and Magnetic Memory](#)

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[Al-Si-N Transparent Hard Nanostructured Coatings](#)

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Roba, Marcella

[Advanced Tailored Hip Implants for Optimal Lubrication by Synovial Fluid](#)

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[Supramolecular Chiral Surfaces](#)

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[Versatile magnetic pathways for kinesin driven molecular shuttles](#)

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[Scanning Force Microscopy Analysis of mechanical Properties of Single Molecules](#)

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[Understanding the role of sugar and glycan structure in natural lubrication mechanisms](#)

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Braun, Thomas

[Ni3A\(111\): A model template for controlled nanostructured growth](#)

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[Quasicrystal surfaces](#) Co-Supervisor Empa: Dr Daniele Passerone

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[Quasicrystals and Complex Metallic Alloys](#)

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[Atomistic simulations of surface-supported molecular nanostructures](#)

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Boger, Cornelis Peter

[Parameterizing the effects of motorcycle helmets on cognitive functioning and comfort](#) Co-Supervisor Empa: Prof. Dr Paul

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Chatterjee, Sanjukta

[Structural and mechanical effects of carbon nanotubes in high-tensile strength thermoplastic polymer fibers](#)

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Kocjan, Nina

[Enhancing sport performance with pre-cooling](#)

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Niedermann, Reto

[Modeling human heat stress to IR-radiation using a model of human physiology and the sweating agile manikin \(SAM\)](#)

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Psikuta, Agnieszka

[Development of an "Artificial Human" to determine the dynamic thermo-physical properties of clothing under real-life conditions](#)

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Road Engineering / Sealing Components

Arraigada, Martin

[Effect of Vehicle-Road Dynamic Interaction on Road Damage](#)

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[Effect of vehicle-road dynamic interaction on pavement structures](#)

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Poulidakos, Lily D.

[A Fundamental Investigation of Interfacial Moisture Content and Adhesive Deterioration of Bitumen Aggregate Bond in Porous Asphalt](#)

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Raab, Christiane

[Influence of Water and Climate on the Interlayer Bond of Asphalt Pavements](#)

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Solid State Chemistry and Catalyses

Eyssler, Arnim

[Perovskite-type exhaust gas catalysts](#)

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[Oxygen engineering of the functional transition metal oxides.](#)

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[In situ spectroscopy of three-way catalysts](#)

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[Nanoblock and nanostructured interface design for advanced thermoelectric materials](#)

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[Plasma enhanced anionic substitutions for the generation of perovskite phases with different properties](#)

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Tomes, Petr

[Development of a Thermoelectric Oxide Module](#)

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Structural Engineering

Boston, Charles

[Active Vibration Control Using Low-Cost Actuators](#)

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Czaderski, Christoph

[Post-Strengthening of RC and PC Members by Prestressed FRP Reinforcement](#)

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Ginés, Rebekka

[Electrostatic modification of the bending stiffness of structural elements](#)

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Janke, Lars

[Anwendungen von Formgedächtnislegierungen in konstruktivem Ingenieur-Bau](#) Co-Supervisor Empa: Christoph Czaderski/
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Mahjood, Darush

[A theoretical investigation on the seismic retrofitting of historical masonry buildings using FRP post-tensioned systems](#)

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Althaus, Hans-Jörg

[Impact Assessment Method for Traffic Noise in Generic LCA](#)
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Caduff, Marloes

[Prospective Life Cycle Assessment \(LCA\) and Scale Up Effects](#)
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Gottschalk, Fadri

[Quantitative risk assessment of nanoparticles in the environment: Exposure modeling and ecotoxicological considerations](#)
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[Prospective LCA of nanotechnology applications in the ICT industry](#) Co-Supervisor Empa: Prof. Dr Lorenz Hilty
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Knoeri, Christof

[Decision support and recommendations for a sustainable construction material management](#)
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Schwab, Fabienne

[Ecotoxicology of Nanoparticles: Biota-Nanoparticle-Pollutant Interactions in aqueous systems – Comparison of Black Carbon and Carbon Nanotubes](#) Co-Supervisor Empa: PD Dr Bernd Nowack
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[Solubilization of carbon nanotubes and fullerenes in natural waters under environmental conditions](#)
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Stamp, Anna

[Anticipating environmental impacts of scarce metals supply](#)
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Steubing, Bernhard

[Agent-based modelling of biomass availability for 2nd generation methanation](#) Co-Supervisor Empa: Dr Patrick Wäger
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Thin Films and Photovoltaics

Blösch, Patrick

[Advanced Contact Layers for Thin Film Solar Cells](#)
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Büecheler, Stephan

[Investigation of Compound Semiconductors as Buffer-Layer in Thin-Film Solar Cells](#)
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Chirila, Adrian

[Properties of high growth rate deposited Cu\(In,Ga\)Se₂ layers and flexible solar cells](#)
Co-Supervisor Empa: Prof. Ayodhya N. Tiwari
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Perrenoud, Julian

[Flexible CdTe solar cells](#)
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Pianezzi, Fabian

[Influence of impurities on the performance of CIGS thin film solar cells](#)
Supervisor Empa: Prof. Ayodhya N. Tiwari
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Seyrling, Sieghard

[CIGS Thin Film Solar Cells for Advances Photovoltaic Devices](#)
Supervisor Empa: Prof. Ayodhya N. Tiwari
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Uhl, Alex

[Low cost processing of Cu \(In, Ga\) Se₂, solar cells](#)
Co-Supervisor Empa: Prof. Ayodhya N. Tiwari
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Verma, Rajneesh

[Cu\(In,Ga\)Se₂ Solar Cells with In₂S₃ buffer layer](#)
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Wood

Eyholzer, Christian

[Cellulose fibrils: Isolation, characterisation and reinforcing potential for biodegradable polymers](#)
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Fuhr, Matthias

[Modelling the Growth and Impact of Wood Decay Fungi](#)
Co-Supervisor: Prof Dr Francis Schwarze
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Ho, Thu Thao

Development of barrier layers in packaging materials by using nanofibrillated cellulose

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Jockwer, Robert

Glulam beams with notches or holes

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Lehringer, Christian

Examination of different methods to enhance wood properties on bioincised wood of *Picea abies* Karst. and *Abies alba* Mill.

Co-Supervisor Empa: Dr Klaus Richter
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Rafsanjani Abasi, Ahmad

Multiscale poro-elastic model: bridging the gap from cellular to macroscopic scale

Co-Supervisor Empa: Prof. Dominique Derome
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Sandomeer, Markus K.

Development of efficient schemes for timber machine strength grading

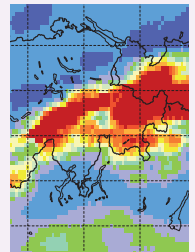
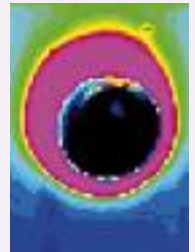
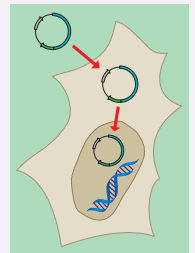
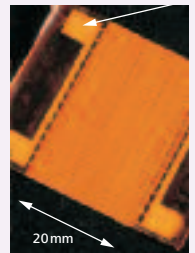
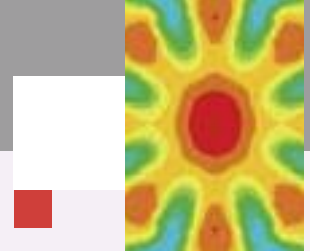
Co-Supervisor Empa: Dr J. Köhler, Dr René Steiger
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Creation of *Physisporinus vitreus* Laccase knockdown mutants for improvement of the bioincising process

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Organizational Chart 2009/2010



Organizational Chart 2010

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