

**SUMMARY:**

REVIEWED JOURNALS AND BOOK CONTRIBUTIONS:	50
INVITED TALKS / ORAL PRESENTATIONS:	58
PATENTS (CURRENT APPLICATIONS)	3
CONFERENCE CONTRIBUTIONS AND PROCEEDINGS :	139

**DETAILED LIST (SORTED BY CATEGORY AND DATE):**

**REVIEWED JOURNALS AND BOOK CONTRIBUTIONS:**

- [1] B. Schmidt-Hansberg, M. Sanyal, N. Grossiord, Y. Galagan, M. Baunach, M.F.G. Klein, A. Colsmann, P. Scharfer, U. Lemmer, H. Dosch, J. Michels, E. Barrena, W. Schabel, Investigation of non-halogenated solvent mixtures for high throughput fabrication of polymer-fullerene solar cells, *Solar Energy Materials and Solar Cells* 96, 195-201, 2012
- [2] P. Cavadini, J. Krenn, D. Garella, D. Sachsenheimer, A. Kowalczyk, N. Willenbacher, P. Scharfer, W. Schabel, Investigation of surface deformation due to Marangoni convection, *Chemical Engineering and Processing*, submitted 2012
- [3] P. Scharfer, W. Schabel, Investigation of multi-solvent mass transport during thin film drying by means of inverse-micro-Raman-spectroscopy (IMRS), *Chemical Engineering and Processing*, submitted 2012
- [4] S. Kachel, Y. Zhou, S. DuVall, P. Scharfer, W. Schabel, Drying behavior of waterborne polymer mixtures for biosensor films, *Chemical Engineering and Processing*, submitted 2012
- [5] L. Wengeler, M. Schmitt, P. Darmstädter, C. Kroner, K. Peters, K. Köhler, P. Niyamakom, P. Scharfer, W. Schabel, Comparison of large scale coating techniques for polymer particle films in hybrid solar cells, *Chemical Engineering and Processing*, submitted 2012
- [6] K. Peters, U. Berner, S. Hartmann, D. Bertram, P. Scharfer, W. Schabel, Liquid film coating of small molecule OLEDs (SMOLEDs) with multilayer device structure, *Chemical Engineering and Processing*, submitted 2012
- [7] B. Schmidt-Hansberg, M. Sanyal, M.F.G. Klein, M. Pfaff, N. Schnabel, S. Jaiser, A. Vorobiev, E. Müller, A. Colsmann, P. Scharfer, D. Gerthsen, U. Lemmer, E. Barrena, W. Schabel, Moving through the phase diagram: morphology formation in solution cast Polymer-fullerene blend films for organic solar cell, *ACS Nano* 5, 8579–8590, 2011
- [8] Benjamin Schmidt-Hansberg, Michael Baunach, Joachim Krenn, Stefan Walheim, Uli Lemmer, Philip Scharfer, Wilhelm Schabel, Spatially resolved drying of multi - component solution cast films for organic electronics, *Chemical Engineering and processing: Process Intensification* 50, 509 - 515, 2011
- [9] Monamie Sanyal, Benjamin Schmidt-Hansberg, Michael F.G. Klein, Alexander Colsmann, Carmen Munuera, Alexei Vorobiev, Uli Lemmer, Wilhelm Schabel, Effect of Photovoltaic Polymer / Fullerene Blend Composition Ratio on Microstructure Evolution during Film Solidification Investigated in Real Time by X - ray Diffraction, *Macromolecules* 2011, 44, 3795 - 3800
- [10] M. Sanyal, B. Schmidt-Hansberg, M. Klein, A. Colsmann, C. Munuera, A. Vorobiev, U. Lemmer, W. Schabel, H. Dosch and Esther Barrena, In-situ x-ray study of drying temperature influence on the structural evolution of bulk heterojunction polymer-fullerene solar cells processed by doctor-blading, *ADVANCED ENERGY MATERIALS*, Volume 1, Issue 3, page 362, May 2011, DOI: 10.1002/aenm.201190014
- [11] W. Schabel, Guest Editor, *Journal: Special Issue in Chemical Engineering & Processing: Advance in Coating and Drying of Thin Films*, Volume 50, Issue 5-6, Mai-Juni 2011  
H. Martin, W. Schabel, Laudation and Editorial (dedicated to the occasion of the 80<sup>th</sup> birthday of Ernst Ulrich Schlünder), *Chem. Eng. Process.* (2010), p. 1-2 doi:10.1016/j.cep.2010.12.001

- [12] M. Müller, P. Scharfer, M. Kind, W. Schabel, Influence of Non-Volatile Additives on the Diffusion of Solvents in Polymeric Coatings, *Chemical Engineering and Processing* 50, Issue 5-6, 551 - 555, 2011
- [13] K. Peters, P. Scharfer, W. Schabel, Phase equilibrium of water in different types of PEDOT:PSS, *Chemical Engineering and Processing* 50, Issue 5-6, 555 - 558, 2011
- [14] L. Wengeler, B. Schmidt-Hansberg, K. Peters, P. Scharfer, W. Schabel, Investigations On knife and slot die coating and processing of polymer nanoparticle films for hybrid polymer solar cells, *Chemical Engineering and Processing* 50, Issue 5-6, 478 – 482, 2011
- [15] L. Wengeler, P. Scharfer, W. Schabel, Designing a sensor for local heat transfer in impingement driers, *Chemical Engineering & Processing* 50, Issue 5-6, 516 - 518, 2011
- [16] S. Jeck, P. Scharfer, W. Schabel, M. Kind, Water sorption in poly(vinyl alcohol) membranes: An experimental and numerical study of solvent diffusion in a crosslinked polymer, *Chemical Engineering & Processing: Process Intensification* 50, Issue 5-6, 543 – 551, 2011
- [17] I. Mamaliga, W. Schabel, S. Petrescu, Characterization of Water Vapour Diffusion into Spherical Silica Gel Particles, *REV. CHIM. (Bucharest)*, 61, Nr. 12, 2010
- [18] B. Dietrich, G. Schell, E.C. Bucharsky, R. Oberacker, M.J. Hoffmann, W. Schabel, M. Kind, H. Martin, Determination of the thermal properties of ceramic sponges, *International Journal of Heat and Mass Transfer*, Volume 53, Issues 1 -3, January 2010, Pages 198-205, ISSN 0017-9310
- [19] L. Wengeler, W. Schabel, Verfahrenstechnische Herausforderungen für die Herstellung großflächiger organischer und hybrider Solarzellen, *Nanotechnik - Moleküle, Materialien, Mikrosysteme*, 2010, No.4
- [20] M. Müller, P. Scharfer, M. Kind, W. Schabel, Bestimmung von Diffusionskoeffizienten nichtflüchtiger Additive in Polymerbeschichtungen mit Hilfe der Inversen Mikro-Raman-Spektroskopie, *Chemie Ingenieur Technik*, 2010, 82, No.12, (S.2097-2102), (DOI: 10.1002/cite.201000085), 2010
- [21] Schabel W., Martin H., *Heat Transfer for Impinging Flows (Chapter G10)*, VDI-Heat Atlas, 2<sup>nd</sup> ed., Springer, 2010
- [22] J. Krenn, P. Scharfer, W. Schabel, Visualization of surface deformations during thin film drying using a Digital Image Correlation method, *Chemical Engineering and Processing*, 2010, doi:10.1016/j.cep.2010.10.005
- [23] B. Schmidt-Hansberg, M.F.G. Klein, K. Peters, F. Buss, J. Pfeifer, S. Walheim, A. Colsmann, U. Lemmer, P. Scharfer and W. Schabel, In-situ monitoring of the drying kinetics of knife coated polymer-fullerene films for organic, *Journal of Applied Physics*, 106, 124501, 2009  
also in *Virtual Journal of Nanoscale Science & Technology* 21, 1; 2010
- [24] J. Krenn, S. Baesch, B. Schmidt-Hansberg, M. Baunach, P. Scharfer, W. Schabel, Numerical investigation of the local mass transfer on flat plates in laminar flow, *Chemical Engineering and Processing*; 2010, doi:10.1016/j.cep.2010.10.002
- [25] W. Schabel, *Polymeric Solutions -Vapour-liquid equilibrium and diffusion coefficients (Chapter D5)*, VDI-Heat Atlas, 2<sup>nd</sup> edition, Springer Verlag 2010
- [26] M. Müller, W. Schabel, M. Kind, Untersuchung der Stofftransportvorgänge nichtflüchtiger Additive bei der Herstellung von Polymerfilmen, *Chemie Ingenieur Technik* 80 (9), 1415-1416, 2008
- [27] Krenn J., Scharfer P., Kind M., Schabel W, Drying of solvent-borne coatings with pre-loaded drying gas - Diffusion Controlled Skinning, *European Physics Journal*, 1, 2009
- [28] H. Do, M. Reinhard, H. Vogeler, A. Puetz, M. F.G. Klein, W. Schabel, A. Colsmann and U. Lemmer, Polymeric anodes from poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) for 3.5% efficient organic solar cells, *Thin Solid Films* 517; 2009)
- [29] Schmidt-Hansberg B. Do H., Colsmann A., Lemmer U., and Schabel W., Drying of Thin Polymer Solar Cells, *European Physics Journal*, 1, 2009
- [30] B. Dietrich, W. Schabel, M. Kind, H. Martin, Pressure drop measurements of ceramic sponges—Determining the hydraulic diameter Pressure Drop, *Chemical Engineering Science* 64 (2009) 3633 – 3640
- [31] Müller M., Kind M., Cairncross R., W. Schabel, Diffusion in Multi-Component Polymeric Systems: Diffusion of Non-Volatile Species in thin films, *European Physics Journal*, 1, 2009
- [32] Scharfer P., Schabel W, Kind M., Diffusion Coefficient Measurements of Alcohol and Water in Fuel Cell Membranes by means of in situ Raman Spectroscopy and Model Calculations, *Chemical Engineering Science, Special Issue*, 2008
- [33] P. Scharfer, W. Schabel, M. Kind, Modelling of alcohol and water diffusion in fuel cell membranes--Experimental validation by means of in situ Raman spectroscopy, *Chemical Engineering Science, Volume 63, Issue 19, Model-Based Experimental Analysis*, October 2008, Pages 4676-4684, ISSN 0009-2509
- [34] I. Mamaliga, W. Schabel, Diffusion close to glass transition temperature of Dichlormethane in Cellulose Triacetate Films, *Chem. Technology(ROM)*, 42 (7-8), 345-351, 2008

- [35] Ludwig I., Schabel W., Krenn J., Olier P., Close-up on film formation – identifying the effects of dispersion variables on waterborne PUR coatings, *European Coating Journal*, 22-27, Vol 3, 2008
- [36] W. Schabel, P. Scharfer, M. Kind, I. Mamaliga, Sorption and diffusion measurements in ternary polymer-solvent-solvent systems by means of a magnetic suspension balance--Experimental methods and correlations with a modified Flory-Huggins and free-volume theory, *Chemical Engineering Science*, Volume 62, Issue 8, Pages 2254-2266, 2007
- [37] I. Ludwig, W. Schabel, J.-C. Castaing, P. Ferlin, M. Kind, Drying and Film Formation of Industrial Water-Borne Latexes, *AIChE Journal*, Vol. 53, No.3, p- 549-560, 2007
- [38] M. Müller, W. Schabel, M. Kind, Mass transfer phenomena of nan-volatile components in polymer films and foils, *Chemie Ingenieur Technik* 79 (9), 1483-1484, 2007
- [39] Scharfer, P. Schabel, W., Kind, M. Mass transport measurements in membranes by means of in situ Raman spectroscopy - first results of methanol and water profiles in fuel cell membranes, *Journal of Membrane Science* 303, 37-42, 2007
- [40] Schabel W, et al. , Concentration Profile Measurements in Polymeric coatings during drying by means of Inverse-Micro-Raman-Spectroscopy (IMRS), , *Raman Update*, Horiba Jobin Yvon, No. 3, Page 1-3, 2006
- [41] Schabel W., Dampf-Flüssigkeitsgleichgewicht und Diffusionskoeffizienten in Polymerlösungen, *VDI-Wärmeatlas*, 10. Auflage, Abschnitt Dfb, 2006
- [42] W. Schabel, M. Abu-Khader, B. Dietrich, H. Martin, HEAT AND MOMENTUM TRANSFER IN SOLID SPONGES - RE-EVALUATION AND REVIEW OF LITERATURE DATA, DOI: 10.1615/IHTC13.p5.80, ISBN: 1-56700-225-0/CD 1-56700-226-9, *Anal International Heat Transfer Conference*
- [43] Chen W., Parma F., Schabel W., Testing Methods for Belt Filter Press Biosludge Dewatering, *Filtration*, Vol. 5, No. 1, p. 29-32, 2005
- [44] Schabel W., Inverse Mikro Raman Spektroskopie - eine neue Messmethode zur Untersuchung lokaler Stofftransportvorgänge in dünnen Filmen, Folien und Membranen, *Chemie Ingenieur Technik*, 77, No. 12, 1915-1926, 2005
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- [47] Schabel W., Ludwig I., Kind M.: Measurements of Concentration Profiles in Polymeric Solvent Coatings by Means of an Inverse-Confocal-Micro-Raman-Spectrometer – Initial results, *Drying Technology*, Vol. 22, Nos. 1&2, 285-294, 2004
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- [50] Wagner G.R., Schabel W., Schlünder E.-U., Enhancing the drying rate of polymeric solvent coatings using a pre-loaded gas phase, *Advance in Coating and Drying of Thin Films*, F. Durst, H. Raszillier, Aachen, Shaker Verlag, pp. 417-422, 1999

## ORAL PRESENTATIONS

(CONFERENCE TALKS & INVITED TALKS FROM INDUSTRY AND RESEARCH INSTITUTIONS)

- [1] **Verband Deutscher Maschinen- und Anlagenbauer (VDMA)**, Industriekreis Batterieproduktion, Frankfurt, **10/2011**
- [2] **BASF**, gemeinsamer TFT Workshop (6 Vorträge / AG TFT) zusammen mit der BASF SE, Ludwigshafen, **09/2011**.
- [3] **BAYER-** gemeinsamer TFT Workshop (7 Vorträge / AG TFT) zusammen mit BTS und BMS, Leverkusen, **06/2011**
- [4] **UNIVERSITY OF SURREY**, Soft Matter Physics Department of Physics, **Talk**, Guildford/Surrey, UK, **03/2011**
- [5] **ISCST**, International Coating S. and Technology Symposium, **Oral Presentation**, St. Paul- USA, **09/2010**
- [6] **EVONIK** – Professorentreffen, Technologieentwicklung in Europa, **Talk**, Essen, **10/2010**
- [7] **PROCESSNET** JT, Annual Meeting Conference in Chemical Engineering, **Oral Presentation**, Aachen, **09/2010**
- [8] **IASI** Technical University, Department of Chemical Engineering, **Invited Talk**, Iasi, **08/2010**
- [9] **EVONIK** – Symposium and Networking Workshop, **Invited Talk**, Marl, **03/2010**
- [10] **NANOMAT**, “11. Szene”, **Talk**, Karlsruhe, **03/2010**

- [11] **KIT NANOMICRO**, Kompetenzfeldtreffen, **Talk**, Karlsruhe, **03/2010**
- [12] **KIT Symposium**, Competence Field of Applied Materials, **03/2010**
- [13] **BAYER TS meets KIT**, **Talk**, Karlsruhe, **02/2010**
- [14] **COATEMA Int. Industry Symposium**, , **Invited Talk**, Dormagen, **09/2009**
- [15] **KIT**, Inst. Technische Polymerchemie, **Talk**, **06/2009**
- [16] **PHILIPS**, OLED Div., Aachen, **TALK Talk**, Germany **03/2009**
- [17] **PROCTOR & GAMBLE**, Process Technology Department **Talk**, Cincinnati, USA **03/2009**
- [18] **BAYER Material Science**, **Reaserch Presentation**, Karlsruhe, **02/2009**
- [19] **ECS 2009**, European Coating Symposium, **Plenary Talk**, Karlsruhe **09/2009**
- [20] **GVC**, Annual Meeting, Heat and Mass Transfer, Bad Dürkheim, **Oral Presentation**, **03/2009**
- [21] **ISCST**, Intern. Coating Science and Technology Symposium, **Plenary Talk**, Los Angeles, USA, **09/2008**
- [22] **ROCHE Diagnostics**, **Reaserch Presentation**, Indianapolis, USA **09/2008**
- [23] **MERCK OLED**, **Reaserch Presentation**, Frankfurt **03/2008**
- [24] **ITRI (Industrial Technology Research Institute)**, , **Invited Talk**, Inst. of Nanotechnology, Taiwan, **03/2007**
- [25] **BASF**, **Reaserch Presentation**, Ludwigshafen, **11/2007**
- [26] **ROCHE Diagnostics**, **Reaserch Presentation**, Mannheim, **10/2007**
- [27] **BAYER TS**, **Reaserch Presentation**, Leverkusen, **09/2007**
- [28] **KONARKA Inc.**, Nürnberg/Linz, , **Invited Talk**, Germany/Austria, **06/2007**
- [29] **BASF Coatings**, **Reaserch Presentation**, Karlsruhe, **02/2007**
- [30] **SHINKONG**, Synthetic-Fibers, **Internal Employee Talk**, Taipei, Taiwan, **03/2007**
- [31] **ISCST**, Intern. Coating Science and Technology Symposium, **Oral Presentation**, Denver, USA, **09/2006**
- [32] **GVC**, Annual Meeting, Heat and Mass Transfer, Frankfurt, **Oral Presentation**, **03/2006**
- [33] **NITTO DENKO Europe**, **11/2006**
- [34] **PROCTOR & GAMBLE**, Process Technology Department, **Reaserch Presentation**, Cincinnati, USA, **09/2006**
- [35] **FZK**, Forschungszentrum Karlsruhe, ITC-WG to Opening of new laboratories, Karlsruhe, **02/2006**
- [36] **FREUDENBERG**, Freudenberg-Forschungs-Kolloquium, , Freudenberg, **07/2006**
- [37] **LOFO (Lonza Folien)**, **Reaserch Presentation**, Basel, **06/2006**
- [38] **MPI (MAX-PLANCK-INSTITUT)**, **Invited Talk**, Magdeburg, **05/2006**
- [39] **ISAS (Institute for Analytical Sciences)**, **Invited Talk**, Dortmund, **03/2006**
- [40] **ECS**, European Coating Symposium, **Oral Presentation**, Bradford, UK, **09/2005**
- [41] **GVC**, Annual Meeting, Drying Technology, **Oral Presentation**, Dresden, **03/2005**
- [42] **FORBO Helmitin**, **Reaserch Presentation**, Pirmasens, **06/2005**
- [43] **DECHEMA-Colloquium**, Drying of Thin Films, **Oral Presentation**, Frankfurt, **11/2004**
- [44] **ROCHE**, Mannheim, **11/2004**
- [45] **GVC**, Annual Conference in Chemical Engineering, **Oral Presentation**, Karlsruhe, **09/2004**
- [46] **ECS**, European Coating Symposium, **Oral Presentation**, Fribourg, Switzerland, **09/2003**
- [47] **GVC**, Annual Conference in Chemical Engineering, **Oral Presentation**, Mannheim, , **09/2003**
- [48] **RHODIA Recherches**, , Paris, France, **09/2003**
- [49] **DLR (Deutsche Luft und Raumfahrt)**, **Invited Talk**, (Prof. Müller-Steinhagen), Stuttgart, **01/2003**
- [50] **DAIMLER-CHRYSLER AG**, Automotive Coatings, **Reaserch Presentation**, Rastatt, **01/2003**
- [51] **GVC**, Annual Meeting in Heat and Mass Transfer, **Oral Presentation**, Marburg, **3/2003**
- [52] **ISCST**, International Coating S. and Technology Symposium, **Oral Presentation**, Minneapolis, USA, **09/2002**
- [53] **MPI (MAX-PLANCK-INSTITUT)**, **Invited Talk**, Magdeburg **11/2002**

- [54] **UM** (UNIVERSITY OF MINNESOTA), (Prof. Cussler), Minneapolis, USA, **09/2002**
- [55] **IDS** (International Drying Symposium), **Oral Presentation**, Beijing, China, **09/2002**
- [56] **QUID**, Quality in Drying Symposium, **Oral Presentation**, Paris, France, **10/2000**
- [57] **IDS**, International Drying Symposium, **Oral Presentation**, Netherland, **09/2000**
- [58] **QUID**, Quality in Drying Symposium, **Oral Presentation**, Porto, Portugal, **10/1999**

## PATENTS (CURRENT APPLICATIONS):

- [1] Application: "Enhancement of Sorption Properties of new Glucose Biosensors"
- [2] Application: "Homogeneous Impingement Jets with Comb -Nozzels":
- [3] Application: "Novel Electrode-Separator-Assembly for Battery Applications"

## CONFERENCE CONTRIBUTIONS AND TALKS

(POSTERS AND ORAL TALKS: AUTHOR AND CO-AUTHOR ):

### 2011

- [1] S. Kachel, P. Scharfer, W. Schabel, Water sorption and diffusion in polymer mixtures for biosensor films (**Poster**), Innovation Lab Clusterkonferenz 2011, Heidelberg
- [2] M. Schmitt, K. Peters, L. Wengeler, P. Scharfer, W. Schabel, Wissenschaftliche Untersuchungen hochpräziser Beschichtungen im Forschungsfeld der organischen Elektronik (**Poster**), Innovation Lab Clusterkonferenz 2011, Heidelberg
- [3] K. Peters, P. Scharfer, W. Schabel, Nassfilmabscheidung von Multilagen-OLED Bauelementen für Anwendungen im Lichtmarkt (NAMOBAL), (**Poster**), Innovation Lab Clusterkonferenz 2011, Heidelberg
- [4] P. Cavadini, J. Krenn, P. Scharfer, W. Schabel, Investigation of surface deformation due to Marangoni convection (**Talk**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [5] K. Peters, S. Hartmann, D. Bertram, P. Scharfer, W. Schabel, Solution processed multilayer small molecule based OLEDs (**Talk**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [6] S. Kachel, Y. Zhou, S. DuVall, P. Scharfer, W. Schabel, Drying and sorption behavior of water-borne polymer mixtures for biosensor films (**Talk**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [7] S. Jeck, P. Scharfer, W. Schabel, M. Kind, Quantitative analysis of mass transport parameters in crosslinked polymer systems (**Talk**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [8] F. Buss, B. Schmidt-Hansburg, M. Sanyal, M. F. G. Klein, A. Colsmann, U. Lemmer, Tuning polymer-fullerene self-assembly in the drying process of organic solar cells (**Poster**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [9] M. Baunach, K. Peters, S. Indris, J. Tübke, P. Scharfer, W. Schabel, Investigations on process induced morphology changes of lithium-ion battery electrodes (**Poster**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [10] M. Baunach, P. Cavadini, B. Schmidt-Hansberg, J. Krenn, W. Schabel, P. Scharfer, Investigations of the gas phase mass transport on flat plates by experiment and numerical simulation (**Poster**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [11] P. Cavadini, L. Wengeler, P. Scharfer, W. Schabel, Numerical Investigation of heat transfer within an array of impinging jets with local extraction of spent fluids (**Poster**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin

- [12] L. Wengeler, M. Schmitt, P. Darmstädter, C. Kroner, K. Peters, K. Köhler, P. Niyamakom, Comparison of large scale coating techniques for polymer particle films in hybrid solar cells (**Poster**), 8<sup>th</sup> European Congress of Chemical Engineering 2011, Berlin
- [13] B. Schmidt-Hansberg, M. Sanyal, M. Klein, F. Buss, A. Colsmann, U. Lemmer, E. Barrena, P. Scharfer, W. Schabel, Tuning Polymer-Fullerene blend nanomorphology by controlled film drying conditions (**Talk**), European Coating Symposium 2011, Turku/Finland
- [14] D. Sachsenheimer, P. Cavadini, A. Kowalczyk, P. Scharfer, W. Schabel, N. Willenbacher, Visualization of lateral material flow during inhomogeneous drying of thin film polymeric films (**Talk**), European Coating Symposium 2011, Turku/Finland
- [15] K. Peters, U. Berner, S. Hartmann, D. Bertram, P. Scharfer and W. Schabel, LIQUID FILM COATING OF SMALL MOLECULE OLEDs (SMOLEDs) WITH MULTILAYER DEVICE STRUCTURE (**Talk**), European Coating Symposium 2011, Turku/Finland
- [16] F. Buss, K. Crawford, K. Peters, P. Scharfer, W. Schabel and L.F. Francis, PARTICLE DISTRIBUTION IN A DRYING PARTICULATE COATING UNDER THE INFLUENCE OF SOLUBLE POLYMER BINDER (**Poster**), European Coating Symposium 2011, Turku/Finland
- [17] P. Cavadini, J. Krenn, P. Scharfer and W. Schabel, INVESTIGATION OF SURFACE DEFORMATION DUE TO MARANGONI CONVECTION (**Talk**), European Coating Symposium 2011, Turku/Finland
- [18] L. Wengeler, M. Schmitt, P. Darmstädter, C. Kroner, K. Peters, K. Köhler, P. Niyamakom, P. Scharfer and W. Schabel, COMPARISON OF LARGE SCALE COATING TECHNIQUES FOR POLYMER PARTICLE FILMS IN HYBRID SOLAR CELLS (**Talk**), European Coating Symposium 2011, Turku/Finland
- [19] P. Cavadini, L. Wengeler, P. Scharfer and W. Schabel, INVESTIGATION OF HEAT TRANSFER WITHIN AN ARRAY OF IMPINGING JETS WITH LOCAL EXTRACTION OF SPENT FLUID (**Poster**), European Coating Symposium 2011, Turku/Finland
- [20] P. Scharfer, K. Peters and W. Schabel, DETERMINATION OF MUTUAL DIFFUSION COEFFICIENTS IN POLYMER-SOLVENT SYSTEMS – A CRITICAL REVIEW OF THE SCIENTIFIC LANDSCAPE (**Poster**), European Coating Symposium 2011, Turku/Finland, accepted
- [21] P. Scharfer and W. Schabel, INVESTIGATION OF MULTI-SOLVENT MASS TRANSPORT DURING THIN FILM DRYING BY MEANS OF INVERSE-MICRO-RAMAN-SPECTROSCOPY (IMRS) (**Talk**), European Coating Symposium 2011, Turku/Finland
- [22] M. Baunach, K. Peters, S. Indris, J. Tübke, P. Scharfer and W. Schabel, INVESTIGATION ON PROCESS INDUCED MORPHOLOGY CHANGES OF LITHIUM ION BATTERY ELECTRODES - INITIAL RESULTS (**Poster**), European Coating Symposium 2011, Turku/Finland
- [23] M. Baunach, P. Cavadini, B. Schmidt-Hansberg, J. Krenn, W. Schabel and P. Scharfer, INVESTIGATION OF THE GAS PHASE MASS TRANSPORT ON FLAT PLATES BY EXPERIMENT AND NUMERICAL SIMULATION (**Poster**), European Coating Symposium 2011, Turku/Finland
- [24] S. Kachel, Y. Zhou, S. DuVall, P. Scharfer, W. Schabel, DRYING BEHAVIOR OF WATERBORNE POLYMER MIXTURES FOR BIOSENSOR FILMS (**Talk**), European Coating Symposium 2011, Turku/Finland
- [25] S. Kachel, Y. Zhou, S. DuVall, P. Scharfer, W. Schabel, DIFFUSION OF WATER IN POLYMER MIXTURES FOR BLOOD GLUCOSE TEST STRIPS (**Poster**), European Coating Symposium 2011, Turku/Finland
- [26] K. Peters, P. Scharfer, W. Schabel, Diffusionskoeffizientenmessungen in Polymerlösungen – ein kritischer Beitrag zu etablierten Messmethoden, ProcessNet Fachausschuss Wärme- und Stoffübertragung, Frankfurt 03/2011
- [27] S. Kachel, Y. Zhou, S. DuVall, P. Scharfer, W. Schabel, Diffusion of water in polymer mixtures for blood glucose test strips, ProcessNet Fachausschuss Wärme- und Stoffübertragung, Frankfurt 03/2011, Vortrag
- [28] B. Schmidt-Hansberg, M. Kowalski, M. Klein, M. Sanyal, A. Colsmann, U. Lemmer, E. Barrena, P. Scharfer, W. Schabel, Phasengleichgewichte und Stofftransport in organischen Halbleitern: Selbstanordnungsprozesse in Polymersolarzellen, ProcessNet Fachausschuss Wärme- und Stoffübertragung, Frankfurt 03/2011, Vortrag
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