

ELECTROCHEMISTRY 2010, BOCHUM

September 13 – 15, 2010

Plenary 1	M. Winter	Monday 12:15-13:00
Plenary 2	C. Amatore	Tuesday, 9:00-9:45
Plenary 3	D. Mandler	Tuesday, 9:45-10:30
Plenary 4	K. Krischer	Wednesday, 9:00-9:45
Keynote 1	H.-D. Wiemhöfer	Monday, 13:30-14:00, Room 1
Keynote 2	A. Kuhn	Monday, 13:30-14:00, Room 2A
Keynote 3	M. Koper	Monday, 13:30-14:00, Room 3
Keynote 4	L. Gorton	Tuesday, 11:00-11:30, Room 2A
Keynote 5	R. Breinbauer	Tuesday, 11:00-11:30, Room 3
Keynote 6	C. Kranz	Wednesday, 10:30-11:00, Room 1
Keynote 7	F. Endres	Wednesday, 10:30-11:00, Room 2A
Keynote 8	T. Jacob	Wednesday, 10:30-11:00, Room 3
Poster 1		Monday, 15:40-17:00
Poster 2		Tuesday, 15:40-17:00
Session A	Batteries I	Monday, 13:30-15:40, Room 1
	Solid state electrochemistry	Monday, 17:00-18:00, Room 1
	Batteries II	Tuesday, 11:00-12:30, Room 1
	New diagnostic tools and in situ methods	Tuesday, 14:00-15:40, Room 1
	Redox flow batteries and impedance spectroscopy	Tuesday, 17:00-18:00, Room 1
	Combined scanning probe techniques	Wednesday, 10:30-12:40, Room 1
Session B	Electroanalysis and new functional materials	Monday, 13:30-15:40, Room 2A
	Photoelectrochemistry I	Monday, 17:00-18:00, Room 2A
	Bioelectrochemistry	Tuesday, 11:00-12:30, Room 2A
	Bioelectrochemistry and bioanalytics	Tuesday, 14:00-15:40, Room 2A
	Photoelectrochemistry II	Tuesday, 17:00-18:00, Room 2A
	Ionic liquids, unconventional electrode materials and reaction media	Wednesday, 10:30-12:40, Room 2A
Session C	Electrocatalysis I	Monday, 13:30-15:40, Room 3
	Electrocatalysis II	Monday, 17:00-18:00, Room 3
	Electrosynthesis and reaction mechanisms	Tuesday, 11:00-12:30, Room 3
	Chlor-alkali electrolysis oxygen depolarized cathodes	Tuesday, 14:00-15:40, Room 3
	Technical oxygen reduction	Tuesday, 17:00-18:00, Room 3
	Computational electrochemistry	Wednesday, 10:30-12:40, Room 3
Session D	Electroplating and deposition	Tuesday, 11:00-12:30, Room 82
	Advanced deposition and corrosion protection	Tuesday, 14:00-15:40, Room 82
	Electropolishing and electrochemical machining	Tuesday, 17:00-18:00, Room 82

PROGRAM

Monday, Sept. 13

09:00 – 12:00		Registration, Mounting of Posters, Exhibition
12:00 – 12:15		Opening Chairperson: G. Wittstock, Oldenburg/D
12:15 – 13:00		PLENARY 1, Martin Winter, Electro-Mobility: Materials, Electrochemistry, Application
13:00 – 13:30		walk to conference center, coffee
13:30 – 15:40		SESSION A - C
15:40 – 17:00		poster session 1, coffee, exhibition
17:00 – 18:00		SESSION A - C
18:10 – 18:40		Mitgliederversammlung der Arbeitsgemeinschaft Elektrochemischer Forschungseinrichtungen (AGEF), Room 2A

Session A, Room 1, Batteries I		
Chairperson: M. Winter, Münster/D		
13:30 – 14:00	Key 1	Polymer Electrolytes for Batteries - Properties and Recent Trends, H.-D. Wiemhöfer
14:00 – 14:20	0012	Disperse Electrolytes with Structured Silica Materials for Lithium Ion Batteries <u>K. Sann</u> , H. Buschmann, B. Luerßen, J. Janek, J. Roggenbruck, M. Fröba, Giessen/D and Hamburg/D
14:20 – 14:40	0088	Challenges for the improvement of lithium manganese dioxide batteries <u>T. Oekermann</u> ; Büdingen/D
14:40 – 15:00	0173	Battery Activities at BASF <u>R. Schmidt</u> , K. Leitner, M. Schulz-Dobrick, S. Schrödle, R. Östen, A. Fischer; Ludwigshafen/D
15:00 – 15:20	0009	Electronic conductivity and the influence of Co in ceria co-doped with Gd and Pr <u>K. Schmale</u> , M. Janssen, M. Grünebaum, S. Baumann, F. Schulze-Küppers, W.A. Meulenberg, H.-D. Wiemhöfer; Münster/D, Jülich/D
15:20 – 15:40	0151	Anhydrous proton conducting membranes based on electron-deficient nanoparticles/PBI-OO/PFSA composites for intermediate temperature DMFC application <u>J. Hu</u> , J. Luo, O. Conrad, C. Agert; Oldenburg/D
15:40 – 17:00		poster session 1, coffee, exhibition
Session A, Room 1, Solid state electrochemistry		
Chairperson: J. Janek, Gießen/D		
17:00 – 17:20	0106	Electrochemical Reactions in Nanoionics - Towards Future Resistive Switching Memories <u>I. Vlalov</u> , R. Waser; Jülich/D, Aachen/D
17:20 - 17:40	0153	Investigation of oxygen reduction sites on solid electrolytes: The width of the electrochemically active zone on Pt/YSZ

		A. Opitz, A. Schintlmeister, H. Hutter, J. Fleig; Vienna/A
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Session B, Room 2A, Electroanalysis and new functional materials		
Chairperson: L. Gorton, Lund/S		
13:30 – 14:00	Key 2	Rational design of nanostructures using bipolar electrochemistry, A. Kuhn; Bordeaux/F
14:00-14:20		Enzyme catalysed aldohexose oxidation as oxygen removal system for electrochemical biosensors. <u>N. Plumeré</u> , Bochum/D; B. H. Campbell, Lake Linden/USA
	0028	On request by the authors the contribution will be presented as poster Ru-based mixed oxide electrodes prepared by electrochemical deposition <u>V. Trieu</u> , R. Chen, H. Natter, R. Hempelmann; Saarbrücken/D
14:20-14:40	0174	Semiconductor Nanostructures by Electrodeposition from Ionic Liquids <u>R. Al-Salman</u> , X. Meng, Y. Li, F. Endres; Clausthal-Zellerfeld/D, Harbin/CHN
14:40 – 15:00	0134	Controlled orientation of DNA in a binary SAM as a key for the successful determination of DNA hybridization by means of electrochemical impedance spectroscopy <u>M. Gebala</u> , W. Schuhmann, Bochum/D
15:00 – 15:20	0027	Multiplexed Sandwich Immunoassays using Electrochemiluminescence Imaging Resolved at the Single Bead Level F. Deiss, C.N. LaFratta, M. Symer, T. M. Blicharz, D.R. Walt, <u>N. Sojic</u> ; Bordeaux/F; Boston/USA
15:20 – 15:40	0047	Separation of Neutral Analytes by Means of Electrochemically Assisted Injection in Combination with Capillary Electrophoresis – Mass Spectrometry <u>F.-M. Matysik</u> , R. Scholz, P. Palatzky; Regensburg/D
15:40 – 17:00		poster session 1, coffee, exhibition
Session B, Room 2A, Photoelectrochemistry I		
Chairperson: D. Schlettwein, Giessen/D		
17:00 – 17:20	0169	ZnO/dye/CuSCN solar cells prepared by low temperature methods <u>M. Wark</u> , Y. Selk, C. Dunkel, T. Oekermann; Hannover/D
17:20 - 17:40	0188	Direct photoelectrochemical conversion of sunlight into chemical energy: analysis of surface properties <u>B. Kaiser</u> , D. Fertig, W. Jaegermann; Darmstadt/D
14:40 – 18:00	0194	Site specific electrodeposition for the realization of photoelectrocatalytic nanoarchitectures A.G. Munoz, Berlin/D

Session C, Room 3, Electrocatalysis I		
Chairperson: L. Kibler, Ulm/D		
13:30 – 14:00	Key 3	Comparing platinum and gold for electro-oxidation reactions; M. Koper, Leiden/NL
14:00 – 14.20	0015	Electro-oxidation of Ethanol in Alkaline Medium: The Influence of Carbonate <u>D. Bayer</u> , B. Kintzel, M. Joos, C. Cremers, J. Tübke; Pfinztal/D
14:20 – 14:40	0029	Enhancement of the Electrocatalytic Activity of Au Nanobelts

		with Unique {110} Surface <u>Y. Chen</u> , S. Milenkovic, A.W. Hassel, J. Kepler; Düsseldorf/D, Linz/AU
14:40 – 15:00		Oxygen reduction at Cu-Pt(111) near surface alloys. <u>A.S. Bondarenko</u> , I.E.L. Stephens, F.J. Perez-Alonso, F. Calle Vallejo, L. Bech, T.P. Johansson, A.K. Jepsen, R. Frydendal, B.P. Knudsen, J. Rossmeisl, I. Chorkendorff; Bochum/D; Lyngby/ DK
	0030	On request by the authors the contribution will be presented as poster Core-Shell Structured Bimetallic Pt-Au Nanoparticles for Fuel Cell Reactions <u>L. S. Sarma</u> , M. Sakthivel, U. Kunz, T. Turek, Dr. L. S. Sarma; Clausthal-Zellerfeld/D
15:00 – 15:20	0043	Stability of Pt alloy high surface area catalysts <u>Karl J.J. Mayrhofer</u> , K. Kartl, M. Arenz; Düsseldorf/D, München/D
15:20 – 15:40	0046	Comparison of the Electro-Oxidation of Ethanol and Ethylene Glycol <u>C. Cremers</u> , D. Bayer, S. Berenger, B. Kintzel, J. Tübke; Pfinztal/D
15:40 – 17:00		poster session 1, coffee, exhibition
Session C, Room 3, Electrocatalysis II Chairperson: K. Mayrhofer, Düsseldorf/D		
17:00 – 17:20	0103	Carbon Nanotube-Supported Sulfided Rh Catalysts for Oxygen Reduction Reactions <u>J. Chen</u> , W. Xia, T.C. Nagaiah, M. Bron, W. Schuhmann, M. Muhler; Bochum/D
17:20 - 17:40	0126	Development of bifunctional Electrodes for closed-loop Fuel Cell Applications <u>S. Altmann</u> , T. Kaz, K.A. Friedrich; Stuttgart/D
14:40 – 18:00	0119	Oxygen reduction at PtRu single crystal alloys L.A. Kibler; Ulm/D

Tuesday, Sept. 14

		Chairperson: W. Schuhmann, Bochum/D
09:00 – 09:45		PLENARY 2, C. Amatore, Investigating Oxidative Stress at the Single Cell Level
09:45 – 10:30		PLENARY 3, D. Mandler, Electro-Assisted Deposition of Thin Films: Applications from Corrosion Prevention to Biomedical Engineering
10:30 – 11:00		walk to conference center, coffee
11:00 – 12:30		SESSION A - D
12:30 – 14:00		lunch, exhibition, poster
14:00 – 15:40		SESSION A - D
15:40 – 17:00		poster session 2, coffee, exhibition
17:00 – 18:00		SESSION A - D
18:10 – 18:40		Mitgliederversammlung der Fachgruppe Angewandte Elektrochemie der GDCh, Room 2A
18:40 – 19:10		Geschichte der Fachgruppe Angewandte Elektrochemie der GDCh, Room 2A
19:30 – 22:00		Symposiums dinner

Session A, Room 1, Batteries II		
Chairperson: K. Pinkwart, Pfinztal/D		
11:00 – 11:30	0057	Award of the J.W. Schultze-Preis of the AGEF to Dr. Izabella Brand and award lectures Changes in the structure of a model lipid membrane induced by a ganglioside – Siglec protein interaction: a spectroelectrochemical study <u>I. Brand</u> , M. Nullmeier, H. Koliwer-Brandl, S. Kelm; Oldenburg/D, Bremen/D
11:30 – 11:50	0142	Electrochemical Modeling of a LiFePO ₄ -based Lithium-Ion Battery <u>C. Hellwig</u> , W.G. Bessler; Stuttgart/D
11:50 – 12:10		A critical analysis on the use of Mott-Schottky plots to characterize the passive film/electrolyte junction. <u>F. La Mantia</u> , Bochum/D; H. Habazaki, Sapporo/Japan; M. Santamaria, F. Di Quarto, Palermo/I
12:10 – 12:30	0127	Study on Film Formation on Anode Materials in LiBOB-Based Electrolytes for Li-Ion Batteries <u>M. Wachtler</u> , M. Wohlfahrt-Mehrens, U. Wietelmann; Ulm/D, Frankfurt/D
12:30 – 14:00		lunch, exhibition, poster
Session A, Room 1, New diagnostic tools and in situ methods		
Chairperson: K. Krischer, München/D		
14:00 – 14:20	0149	Electrochemical Microcalorimetry <u>K. Etzel</u> , K. Bickel, R. Schuster; Karlsruhe/D
14:40 – 15:00	0024	Spectroelectrochemical behaviour of novel α,ω -endcapped oligothiophenes as an active layer for organic electronic devices

		applications. <u>K. Haubner</u> , S. Klod, E. Jaehne, J. Tarabek, L. Dunsch; Dresden/D
15:00 – 15:20	0095	On-line in-situ Diagnostics of Processes within PEM Fuel Cells by Raman Spectroscopy <u>H. Bettermann</u> , P. Fischer; Düsseldorf/D
15:20 – 15:40	0133	Insitu Xray Tomographic Microscopy of Liquid Water in PEFC <u>J. Eller</u> , F. Marone, M. Stampanoni, F.N. Büchi; Villigen/CH
15:40 – 17:00		poster session 2, coffee, exhibition
Session A, Room 1, Redox flow batteries and impedance spectroscopy Chairperson: M. Wachtler, Ulm/D		
17:00 – 17:20	0008	Redox Flow Battery Model Based on Impedance Spectroscopy <u>Y. Wang</u> , D. Schulte, J. Drillkens, D.U. Sauer; Aachen/D
17:20 - 17:40	0186	Development of Redox Flow Batteries - From electrochemical studies to the construction of kW/kWh energy storage systems for fluctuating renewable energies <u>J. Noack</u> , K. Pinkwart, J. Tübke, Pfinztal/D
17:40 – 18:00	0110	Non-linear frequency response analysis of electrochemical hydrogen reaction kinetics <u>V. Panić</u> , T. Vidaković-Koch, M. Petkovska, Živković, L.; Magdeburg/D, Belgrade/SRB

Session B, Room 2A, Bioelectrochemistry Chairperson: C. Kranz, Ulm/D		
11:00 – 11:30	Key 4	How to prove true direct electron transfer between redox enzymes and electrodes, L. Gorton, Lund/S
11:30 – 11:50	0018	Recent advances in the exploration and development of electroactive microbial biofilms <u>U. Schröder</u> ; Braunschweig/D
11:50 – 12:10	0019	The cathode opportunity: Chemical and biological cathode options for microbial bioelectrochemical systems <u>F. Harnisch</u> , U. Schröder; Braunschweig/D
12:10 – 12:30	0037	Bilirubin oxidase modified carbon – silicate composite electrode for bioelectrocatalytic dioxygen reduction <u>W. Nogala</u> , A. Celebanska, K. Szot, M. Opallo; Warsaw/P
12:30 – 14:00		lunch, exhibition, poster
Session B, Room 2A, Bioelectrochemistry and bioanalytics Chairperson: A. Kuhn, Bordeaux/F		
14:00 – 14.20	0185	Coupling enzymes and electrodes for bioelectronic devices <u>U. Wollenberger</u> , F. Scheller, R. Spricigo, S. Frasca, K. Lettau, A. Badalyan, L. Peng, S. Leimkühler; Golm/D
14:20 – 14:40	0136	A Highly Efficient Buckypaper-Based Electrode Material for Biofuel Cell and Biosensor Applications <u>L. Hussein</u> , G. Urban; Freiburg/D
14:40 – 15:00	0104	Three dimensional film electrode prepared from oppositely charged carbon nanoparticles as efficient enzyme host <u>K. Szot</u> , J.D. Watkins, S.D. Bull, F. Marken, M. Opallo; Warswa/PL, Bath/UK
15:00 – 15:20	0050	Carbon Nanotube Electrodes for Neuronal Diagnostic and Biosensing Applications <u>R. Gerwig</u> , K. Fuchsberger, B. Schröppel, C. Burkhardt, A. Le

		Goff, M. Stelzle; Reutlingen/D, Trieste/I
15:20 – 15:40	0082	Towards <i>in vivo</i> sensors: An electrochemical microsensor implant in an <i>in vivo</i> environment using avian <i>ex ovo</i> cultures <u>M. Kubon</u> , M. Moschallski, G. Link, S. Werner, C. Burkhardt, W. Nisch, B. Scholz, B. Schlosshauer, G. Urban, M. Stelzle; Reutlingen/D, Freiburg/D
15:40 – 17:00	0047	poster session 1, coffee, exhibition
Session B, Room 2A, Photoelectrochemistry II Chairperson: K.-D. Mangold, Frankfurt/D		
17:00 – 17:20	0121	TiO ₂ -Nanotubes in Energy Research <u>S. Leonardi</u> , F.D. Fonzo, A.L. Bassi, U. Stimming, J. Kunze; München/D, Milano/I
17:20 - 17:40	0128	Mesoporous TiO ₂ photoelectrodes: A comparison of sol-gel and nanoparticle based thin films <u>P. Hartmann</u> , D.-K. Lee, B. Smarsly, J. Janek; Gießen/D, Seoul/Korea
17:40 – 18:00	0069	Scanning electrochemical microscope studies of dye regeneration at sensitized ZnO photoelectrochemical electrodes <u>U.M. Tefashe</u> , T. Loewenstein, H. Miura, D. Schlettwein, G. Wittstock; Oldenburg/D, Giessen/D, Tsukuba/JP

Session C, Room 3, Electrosynthesis and reaction mechanisms Chairperson: R. Schmidt, Ludwigshafen/D		
11:00 – 11:30	Key 5	Electrochemical Methods in Hightthroughput Synthesis, R. Breinbauer
11:30 – 11:50	0020	Synthetic conversion of olefins at the anode.- Products and scope <u>H. Schäfer</u> ; Münster/D
11:50 – 12:10	0059	Combination of rotating disc electrode and UV/Vis-spectroelectrochemistry S. Hild, K.-M. Mangold, P. Schrems; Münster/D, Frankf.a.M/D
12:10 – 12:30	0055	Development of new concept for high throughput SECM imaging <u>A. Lesch</u> , F. Cortés-Salazar, D. Momotenko, H.H. Girault, G. Wittstock; Oldenburg/D, Lausanne/CH
12:30 – 14:00		lunch, exhibition, poster
Session C, Room 3, Chlor-alkali electrolysis oxygen depolarized cathodes Chairperson: J. Kintrup, Leverkusen/D		
14:00 – 14.20	0035	Characterization of Oxygen Depolarized Cathodes in Chlor-Alkali-Electrolysis <u>G.D. Polcyn</u> , F. Verfuß, G.G. Toepell, J. Jörissen; Dortmund/D
14:20 – 14:40	0067	Preparation and testing of silver-based gas-diffusion electrodes for chlor-alkali electrolysis <u>I. Moussalem</u> , N. Chavan, S. Pinnow, T. Turek; Clausthal-Zellerfeld/D
14:40 – 15:00	0068	Mathematical model for a chlor-alkali electrolysis cell with oxygen depolarized cathodes <u>S. Pinnow</u> , N. Chavan, T. Turek; Clausthal-Zellerfeld/D
15:00 – 15:20	0048	Current Density Distribution in Chlor-Alkali Electrolysis Cells using Oxygen Depolarized Cathodes <u>G.G. Toepell</u> , G.D. Polcyn, F. Verfuß, J. Jörissen; Dortmund/D

15:20 – 15:40	0113	Local electrochemical visualisation of the activity of gas-diffusion electrodes by means of the oxygen-permeation mode of scanning electrochemical microscopy <u>L. Stoica</u> , J. Finger, X. Chen, W. Schuhmann; Bochum/D
15:40 – 17:00	0046	poster session 1, coffee, exhibition
Session C, Room 3, Technical oxygen reduction Chairperson: T. Turek, Clausthal/D		
17:00: - 17:20	0070	Electrochemical Characterization of Porous Silver Membranes during Oxygen Reduction in Alkaline Solution <u>N. Wagner</u> , G. Schiller, K.A. Friedrich, N. Wagner; Stuttgart/D
17:20 - 17:40	0131	High stability of Pt/MWCNT electrocatalysis for oxygen reduction reaction <u>F. Hasché</u> , M. Oezaslan, P. Strasser; Berlin/D
17:40 – 18:00	0177	Fe/N modified multi-walled carbon nanotubes (MWCNTs) for electrocatalytic applications <u>T. Schilling</u> , J. Masa, W. Schuhmann, M. Bron; Halle/D, Bochum/D

Session D, Room 82, Electroplating and deposition Chairperson: A. Heinzl/Duisburg/D		
11:00 – 11:30		Award of price of FG Angewandte Elektrochemie, award lecture Influence of electrode size and geometry on electrochemical experiments with combined SECM-SFM probes <u>S. E. Pust</u> , M. Salomo, E. Oesterschulze, G. Wittstock, Jülich/D, Kaiserslautern/D, Oldenburg/D
11:30 – 11:50	0021	Metallization of aromatic SAMs on Au(111) <u>F. Eberle</u> , M. Manolova, D.M. Kolb; Ulm/D
11:50 – 12:10	0051	Electroplating of complex porous 3D materials: mass flow limitation and properties of nanocrystalline coated metal foams <u>A. Jung</u> , H. Natter, E. Lach, S. Diebels, M.R. Koblichka, U. Hartmann, R. Hempelmann, Saarbrücken/D and Saint Luis/F
12:10 – 12:30	0101	Electrodeposition of patterned metal layers in gradient magnetic fields <u>K. Tschulik</u> , R. Sueptitz, J. Koza, M. Uhlemann, A. Gebert, L. Schultz; Dresden/D
12:30 – 14:00		lunch, exhibition, poster
Session D, Room 82, Advanced deposition and corrosion protection Chairperson: D. Mandler, Jerusalem/IL		
14:00 – 14:20	0109	Zinc electrodeposition from a deep eutectic system containing choline chloride and ethylene glycol <u>B. Gollas</u> , A. Whitehead, M. Pözlner, L. Vieira; Graz/A, Wiener Neustadt/A
14:20 – 14:40	0124	Composite Coatings: Oxide Particles with Metals by Electrodeposition <u>T.R. Khan</u> , F. Marlow, M. Rohwerder; Düsseldorf/D, Mülheim/D
14:40 – 15:00	0032	Electrodeposition of Titanium on SiC-Fibres for Metal Matrix Composite Production <u>J. Gusson</u> , J. Hausmann; Köln/D

15:00 – 15:20	0154	Electrochemical investigations on the corrosion properties of new free machining titanium alloys <u>S. Benfer</u> , F. Depentori, J. Laukart, C. Siemers, J. Rösler, W. Fürbeth; Frankfurt/D, Braunschweig/D
15:20 – 15:40	0039	A micro electrochemical high throughput approach towards understanding the corrosion of zinc and its alloys <u>S.O. Klemm</u> , J.-C. Schauer, B. Schuhmacher, A.W. Hassel; Düsseldorf/D, Dortmund/D, Linz/A
15:40 – 17:00		poster session 1, coffee, exhibition
Session D, Room 82, Electropolishing and electrochemical machining Chairperson: B. Gollas, Graz/AT		
17:00 – 17:20	0090	Investigation of Electropolishing for Precise Manufacturing of Metallic Microcomponents <u>S. Kissling</u> , K. Bade; Eggenstein-Leopoldshafen/D
17:20 - 17:40	0078	Microelectrochemical measurements on single grains of polycrystalline Ti- 30 at. % Nb β -Titanium alloy using scanning droplet cell <u>M.T. Woldemedhin</u> , D. Raabe, A.W. Hassel; Linz/A, Düsseldorf/D
17:40 – 18:00	0196	High-field Oxide Growth - the Final Model? <u>M.M. Lohrengel</u> , Düsseldorf/D

Wednesday, Sept. 15

Chairperson		
09:00 – 09:45		PLENARY 4, K. Krischer, New views on electrocatalysis: From fluctuation enhanced reaction rates on nanoelectrodes to mesoscopic pattern formation
09:45 – 10:30		walk to conference center, coffee, exhibition
10:30 – 12.40		SESSION A - C
12:40 – 13:00		closing, poster prizes
		Optional excursion to Henrichshütte, Hattingen

Session A, Room 1, Combined scanning probe techniques		
Chairperson: R. Schuster, Karlsruhe/D		
10:30 - 11:00	Key 6	Nanoelectrochemistry at the AFM Tipp, C. Kranz
11.00 - 11:20	0076	Challenges for Scanning Electrochemical Microscopy with Real World Samples <u>G. Wittstock</u> , U. Tefashe, S. E. Pust, B. Vaske, S. Schmachtel, K. Kontturi, Oldenburg/D, Jülich/D, Helsinki/FIN
11:20 - 11:40	0085	Scanning Probe Techniques (EC-STM, SECPM, AFM) and Electrochemistry on Single Crystalline Supports <u>H. Wolfschmidt</u> , C. Baier, U. Stimming; Garching/D
11:40 - 12:00	0120	SKP-SECM: System Design, Development, Optimization and First Applications <u>A. Maljusch</u> , C. Senöz, M. Rohwerder, W. Schuhmann; Bochum/D, Düsseldorf/D
12:00 - 12:20	0022	An Electrochemical SPM under Full Environmental Control <u>F. Freehill</u> , G. Kada; Wokingham/GB, Linz/A
12:20 - 12:40	0123	Investigation of Fuel Cell Gas Diffusion Layers by Atomic Force Microscopy <u>R. Hiesgen</u> , I. Wehl, A. Carreras, A. Bauder, M. Schulze, A. Friedrich, H. Wang, X. Yuan; Esslingen/D, Cordoba/RA, Stuttgart/D, Vancouver/CA

Session B, Room 2A, Ionic liquids, unconventional electrode materials and reaction media		
Chairperson: J. Janek, Giessen/D		
10:30 - 11:00	Key 7	Electrochemical double layers and multi layers in ionic liquids, F. Endres
11.00 - 11:20	0041	XPS and DFT study of imidazolium based ionic liquids as electrolytes for high energy electrochemical double layer capacitors <u>A. Foelske-Schmidt</u> , I. Czekaj, D. Weingarh, R. Kötz; Villingen/CH
11:20 - 11:40	0026	The gold/ionic liquid interface <u>M. Gnahn</u> , T. Pajkossy, D.M. Kolb; Ulm/D

11:40 - 12:00	0162	Novel hydrocarbon electrolytes for direct methanol fuel cells and their influence on the anode performance and the membrane electrolyte interface <u>R. Elze</u> , C. Wannek, K. Wippermann, J. Wackerl, J. Mergel; Jülich/D
12:00 - 12:20	0184	Reaction of OH-Radicals with Organic Compounds at Boron Doped Diamond Electrodes <u>H. Baltruschat</u> , S. Ayata, A. Erem, S. Ernst, I. Kisacik, A. Stefanova; Bonn/D
12:20 - 12:40	0033	Plasma Electrochemistry in Ionic Liquids: Challenge and Limits <u>O. Höft</u> , N. Kulbe, J. Janek, F. Endres; Clausthal-Zellerfeld/D, Gießen/D

Session C, Room 3, Computational electrochemistry

Chairperson: C. Roth, Darmstadt/D

10:30 - 11:00	Key 8	Multiscale-Modeling of the Oxygen Reduction Reaction, T. Jacob
11:00 - 11:20	0179	Atomic Friction and stick-slip Resolution on Gold Electrodes under electrochemical conditions <u>N. Podgayniy</u> , S. Geldermann, H. Baltruschat; Bonn/D
11:20 - 11:40	0193	Molecular Dynamics Modeling of Proton Discharge at Electrified Aqueous/Metallic Interfaces <u>E. Spohr</u>
11:40 - 12:00	0158	Spatio-temporal patterns during the electrodisolution of n-type silicon <u>K. Schönleber</u> , I. Miethe, A. Heinrich, K. Krischer; Garching/D
12:00 - 12:20	0054	Electrochemical Measurements using a Segmented HTPEM Fuel Cell <u>C. Siegel</u> , I. Buder, G. Bandlamudi, A. Heinzl; Duisburg/D
12:20 - 12:40	0038	Platinum Enhanced Corrosion of Pt/C Model Electrodes <u>A. Savouchkina</u> , A. Foelske-Schmitz, Kötzer, R., A. Wokaun, G.G. Scherrer; Villingen/CH