

### Preliminary Program

March 7		March 8		March 9		March 10		
9:00-21:00	On-site registration	8:30-8:50	Opening	8:30-8:55	Osaka T (I13)	8:30-8:45	Hassel AW (O01)	Torresi RM (O14)
		8:50-9:20	Kolb DM (K)	9:00-9:25	Schindler W (I14)	8:45-9:00	Murakoshi K (O02)	Lisdat F (O15)
		9:20-9:45	Schiffirin D (I01)	9:25-9:50	Hasegawa H (I15)	9:00-9:15	Heidelberg A (O03)	Zei SM (O16)
		9:45-10:10	Ulstrup J (I02)	9:50-10:15	Kim H (I16)	9:15-9:30	Hasegawa H (O04)	Lin WF (O17)
		10:10-10:30	Tea Break	10:15-10:35	Dong SJ (I17)	9:30-9:45	Xu Z (O05)	Li ZL (O18)
		10:35-10:55	Tao NJ (I03)	10:35-10:55	Tea Break	9:45-10:00	Yang Y (O06)	Kwon HS (O19)
		10:55-11:20	Leiva EPM (I04)	11:00-11:25	Maier J (I18)	10:00-10:30	Tea Break	
		11:20-11:45	Park S (I05)	11:25-11:50	Feliu JM (I19)	10:30-10:45	Ahlberg E (O07)	Kim KJ (O20)
		11:45-12:10	Gooding J (I06)	11:50-12:15	Leger JM (I20)	10:45-11:00	Daniele S (O08)	Jiang ZY (O21)
		12:10-12:35	Chen SW (I07)	12:15-12:40	Chan KY (I21)	11:00-11:15	Zhang JD (O09)	Wang ZX (O22)
		12:35-14:00	Lunch	12:40-14:00	Lunch	11:15-11:30	Torresi SI (O10)	Crouch (O23)
		14:00- 14:25	Uosaki K (I08)	14:00- 14:25	Tadjeddine A (I22)	11:30-11:45	Tang C (O11)	Veerasai (O24)
		14:25-14:50	Schuster R (I09)	14:25-14:50	Osawa M (I23)	11:45-12:00	Zhang JD (O12)	Ahn SJ (O25)
		14:50-15:15	Wan LJ (I10)	14:50-15:15	Sun SG (I24)	12:00-12:15	Zheng JW (O13)	Chen M(O26)
		15:15-15:40	Wandlowski Th (I11)	15:15-15:40	Pettinger B (I25)	12:15-13:30	Lunch	
		15:40-16:05	Christensen P (I12)	15:40-16:05	Heinze J (I26)	13:30-18:30	EXCURSION	
		16:05-16:20	Tea Break	16:05-16:20	Tea Break			
		16:20-18:00	Poster Session (I)	16:20-18:00	Poster Session (II)			
18:00-21:00	Reception	18:00-19:30	Dinner			18:30-19:30	Dinner	
		19:30-21:30	Culture Night	19:00-21:00	Banquet	19:30-22:00	State Key Lab Tour	

## LECTURES

- K Electrochemical nanostructuring: Present and Future, D. M. Kolb.
- I01 Structure and Electrochemical Properties of Functionalised Nanoparticles and Molecular Linkers, D. J. Schiffrin, W. Haiss, H. van Zalinge, S. J. Higgins, D. Bethell, and R. J. Nichols.
- I02 Electrochemistry and Bioelectrochemistry towards the Nanoscale and Single-Molecule Levels: Theoretical Notions and Some Systems, Alexander M. Kuznetsov, Tim Albrecht, Qijin Chi, Jingdong Zhang and Jens Ulstrup.
- I03 Measurement of Single Molecule Conductance in Electrochemical, Nongjian Tao, Bingqian Xu and Xiaoyin Xiao.
- I04 Computer Simulation of Electrochemical Nanostructuring, E. P. M. Leiva.
- I05 Electrical Properties of Conducting Polymer Films and Nanowires Probed by Current-Sensing Atomic Force Microscopy, Su-Moon Park, Hyo-Joong Lee, Dong Hun Han, and Jae-Woo Kim.
- I06 Using Carbon Nanotubes, DNA and other 'Molecular Wires' to Transfer Electrons Over Long Distances: Applications to Sensing and Bioelectronics, J. Justin Gooding, Jingquan Liu, Elicia (Leh-See) Wong, Rahmat Wibowo, Dusan Losic, Alison Chou, Joe. G. Shapter, Michael N. Paddon-Row, D. Brynn Hibbert.
- I07 Electronic Conductivity of Nanoparticle Monolayers at the Air|Water Interface, Shaowei Chen, Yiyun Yang, Sulolit Pradhan.
- I08 Electrochemical Oxidative Formation and Reductive Desorption of Self-assembled Monolayer of Alkanethiol on Au(111) Surface, K. Uosaki, H. Wano, T. Sumi.
- I09 Nanoscale self-assembly on a Au electrode by electrochemically driven spinodal decomposition, R. Schuster, D. Thron, M. Binetti, and G. Ertl.
- I10 Well-defined molecular structure and nanomaterials, Li-Jun Wan.
- I11 Nanostructure formation on Au(hkl) by selective oxidation/reduction, Th. Wandlowski, G. Nagy, D. Mayer, S. Pronkin.
- I12 The Identification of CO Adsorbed at Ru and Pt Sites on A Polycrystalline Pt/Ru Electrode and The Observation of Their Oxidation and Free Interchange under Open Circuit Conditions, P. A. Christensen, J. M. Jin and W. F. Lin.
- I13 New Trends on Electrochemical Nanotechnology, Tetsuya Osaka.
- I14 Nanoelectrochemistry and Nanophysics at Solid/Liquid Interfaces under Potential Control, W. Schindler, M. Hugelmann, P. Hugelmann.
- I15 Use of electrochemical processes for formation of semiconductor nanostructures, H. Hasegawa (Hokkaido).

- I16 Preparation of Nano-sized Materials Using Ordered Porous Alumina Membrane Templates, Hasuck Kim and Yuanzhe Piao.
- I17 Organized Nanostructure Assemblies and Interfacial Electrochemistry, Shaojun Dong.
- I18 Nano-ionics: interfaces and size effects in solid electrolytes and solid electrodes, J. Maier.
- I19 Electrochemical characterization of nanoparticle's surface structure, J.M. Feliu, E. Herrero, J. Solla-Gullon, P. Rodriguez, A. Aldaz..
- I20 Preparation and electrochemical modification of bimetallic nanoparticles for electrocatalytic reactions , M. Leger.
- I21 Supported Mixed Metal Nanoparticles for Fuel Cell Electrodes, Kwong-Yu Chan, Jiawen Ren, Jie Ding, Xin. Zhang, ShaAn Cheng, and Kwok-Ying Tsang.
- I22 Nonlinear optical technical techniques as a potential vibrational probe of nanostructures in the electrochemical environment, Abderrahmane Tadjeddine, Franck Vidal, C. Humbert and Bertrand Busson.
- I23 Surface-Enhanced Infrared Study of Hydrogen Bonding between Complimentary Bases at the Electrochemical Interface, Y Sato, H. Noda, F. Mizutani, and M. Osawa.
- I24 Anomalous IR Properties of Low-dimensional Nanomaterial Electrodes, Shi-Gang Sun.
- I25 Tip-enhanced Raman spectroscopy at metal surfaces. Recent developments and perspectives, B. Pettinger, B. Ren, G. Picardi, R. Schuster and G. Ert.
- I26 The Scanning Electrochemical Microscope as a Versatile Tool for Characterizing and Modifying Solutions and Surfaces in (Micro- and) Nanodimensions, J. Heinze, N. Baltes, F. Boldt, C. Hess, J. Ufheil.

### **ORAL PRESENTATIONS**

- O01 Preparation and Characterisation of Rhenium Nano Electrode Arrays, Achim Walter Hassel and André Schneider.
- O02 Electronic Structure of Isolated Single-Walled Carbon Nanotubes under Electrochemical Potential Control, Kei Murakoshi , Ken-ichi Okazaki.
- O03 Electrical and Electrochemical properties of 1D materials of the Mo<sub>3</sub>Se<sub>3</sub> nanowire system, A. Heidelberg, G. Staikov, J. J. Boland, J. W. Schultze.
- O04 Site-selective Fabrication of Conducting Molecular Nanowire Based on Electrocrystallization, H. Hasegawa.
- O05 Construction of a concentric nanocable Array by electrochemical method, Z.Xu.
- O06 The Electrochemical Studies on Ordered Carbon Nanotube Array Electrodes, Q.Y.Gao, J.Zhang, Y.Yang.

- O07 Electrocatalysis at nano-structured nickel, Elisabet Ahlberg, Annika Johansson, Fredrik Falkenberg.
- O08 Voltammetric Behaviour Of Nanostructured Platinum Microelectrodes In Aqueous And Non-Aqueous Solutions, Salvatore Daniele, Adriano Gambirasi, Carlo Bragato, M. Antonietta Baldo.
- O09 Monolayer electrochemistry of Copper Nitrite Reductase on Au(111) electrodes, J. Zhang, A.G.Hansen, A.C.Welinder, H.E.M.Christensen and J. Ulstrup.
- O10 Enzymes and nanoparticles immobilized by electrostatic layer by layer deposition: a versatile tool for preparing biosensors, Susana I. Córdoba de Torresi, Pablo Fiorito, Vinicius R. Gonçales
- O11 Modification and Patterning of Surfaces using Electrochemistry and Molecular Assembly Approach, C.S Tang, Roland Hauert, Beat Keller, Marcus Textor, Janos Vörös.
- O12 Electrochemical Characteristics of Indium Tin Oxide Electrodes Modified with Gold Nanoparticles Using a Novel Attachment Approach, Jingdong Zhang, Miyako Kambayashi and Munetaka Oyama.
- O13 Formation of Mercury Nanoshell on Assembled Gold Nanoparticles: An Electrochemical Approach, Xiaowei Li, Yan Zhuang, Xingxia Zhang, Junwei Zheng, Tianhong Lu.
- O14 Nanofibers Composite Vanadium Oxide/Polyaniline: Synthesis And Characterization Of An Electroactive Anisotropic Structure, R. M. Torresi, M. Malta.
- O15 Construction of a cytochrome c multilayer electrode and its application for the detection of oxygen radicals, F. Lisdat, F.W. Scheller, M. Beissenhirtz, M. Wolny.
- O16 Electrocatalytic properties of Pt-modified Ru(0001) and Ru(1010) surfaces, M. S. Zei.
- O17 Reactivity of The Ru(0001) and RuO<sub>2</sub>(100) Surfaces Towards The Adsorption And Electro-oxidation of C<sub>1</sub> Fuel Molecules, W. F. Lin, J. M. Jin and P. A. Christensen.
- O18 New Non-Linear Kinetics in Methanol Electrooxidation on the Film Electrode of Nickel Hydroxide Nanoparticles, Zelin Li, Wei Huang, Zhenjiang Niub.
- O19 Photoelectrochemical Analysis of Passive Film on Iron Base Alloys, H. Jang, E. Cho and H. Kwon.
- O20 Incorporation of carbon nanotubes in dye-sensitized nanocrystalline TiO<sub>2</sub> solar cells, K.-J. Kim, S.-R Jang, S. L. Kim, K. E. Kim.
- O21 Electrochemical Properties of Nano-materials Synthesized Using P123 as Template for Lithium Ion Batteries, Qin Zhou, Xueli Li, Qiang Wu, Tao Wang and Zhiyu Jiang.
- O22 Studies on Mechanism of Performance Improvement by Surface Modification to Positive Electrode Materials for Lithium Ion Batteries, Z. X. Wang, L. J. Liu, X. Q. Yang, L. Q. Chen, and X. J. Huang<sup>1</sup>.
- O23 Studies of precious metal oxide thin films as anode materials for the degradation of phenol, M.E. Makgae and A.M. Crouch.

- O24 Synthesis, Electrochemical and Structural Behaviors of Lead Sulfide Nanoparticles and Its Thin Film., W. Veerasai and P. Katikawong.
- O25 Investigation of Passivity Breakdown on Ni Based on the Point Defect Model, S. J. Ahn, H. S. Kwon, and D. Macdonald.
- O26 Electrochemical Studies of Surface Immobilized PNA Hybridization to DNA and Fabrication of Patterned Conductive Polymer, M. Chen, W. Knoll.

### POSTERS

- P01 Nanowire junction of Cu<sub>2</sub>O and ZnO on Ni prepared by electrodeposition, Y. Tak<sup>1</sup>, J. Oh<sup>1</sup>, J. Lee.
- P02 Electroreduction of Nitrite at Nanofibrillar Polypyrrole/Phosphotungstic acid Modified Electrode, Jixiao Wang, Yun Tian, Shicahng Wang.
- P03 Growth of Silicon Materials at the end of Ordered Carbon Nanotube Array by CVD Method, C.Gu, C.Li, Y.Yang.
- P04 Investigation of growth of electrosynthesized polyaniline in anodic aluminum oxide template, Jian-zhang Zhou, Ping Dong, Yan-yan Xi, Chen-dong Cai, Ling-ling Wu, Zhong-hua Lin\*.
- P05 The Enhanced Photoluminescence of CdS Nanowire in CdS - Polyaniline(CdS-PANI) Coaxial Nanowire Arrays, Y. Y. Xi, J. Z. Zhou, P. Dong, C. D. Cai, L. L. Wu, Z. H. Lin.
- P06 Photoluminescence Mechanism of Highly Ordered TiO<sub>2</sub> Nanowire Arrays Prepared by Electrochemical Deposition, J. Zuo, L. Sun, C. G. Nie, C. J. Lin.
- P07 Electroless Deposition of Nickel Coating on Carbon Nanotubes by a Polyol Process, C.J. Lin, Y. Wang, H. Dong, Y. Chen.
- P08 Effects of Ball-milling on the Lithium Insertion into Multi-walled Carbon Nanotubes and Single-walled Carbon Nanotubes, J. Y. Eom, D. Y. Kim and H. S. Kwon.
- P09 A Controllable Electrochemical Fabrication of Metallic Electrodes with Nanogap, J. Xiang<sup>1</sup>, B. Liu<sup>1</sup>, S. T. Wu<sup>2</sup>, B. W. Mao<sup>1</sup>, Z. Q. Tian<sup>1</sup>.
- P10 A Preliminary Theoretical Study of Current-Voltage Curves and Conductance of Molecular Wire Junctions, De-Yin Wu, Zhong-Qun Tian.
- P11 Phase Transition Effect On Photoluminescence Of Alumina Membranes with Ordered Nanopore Arrays, X.Y. Sun, F.Q. Xu, Z.M. Li, W.H. Zhang.
- P12 Application Of Cyclic Voltammetry Method To The Fabrication Of High Density Self-supporting Silver Nanowire Arrays, X.Y. Sun, F.Q. Xu, Z.M. Li, W.H. Zhang.
- P13 Novel Method to Attach Gold Nanoparticles on Indium Tin Oxide Surface, Miyako Kambayashi, Jingdong Zhang and Munetaka Oyama.
- P14 Development of a novel enzyme/semiconductor nanoparticles biosensing system with electropolymerized films, Y.S. Fung, S.H. Si and H. Hu.

- P15 Agglomeration Effects of Au-core/Pt-shell Nanoparticles on IR Properties, Na Tian, Wei Chen, Shi-Gang Sun.
- P16 The Application of Nanomaterials Related Molecular Sieves in Electrochemistry, Yang-Xia Jiang, Zuo-Feng Chen, Di Si, Quan-Feng Dong, Shi-Gang Sun.
- P17 Synthesis and Assembly of Silver Nanocubes on Electrode Surfaces, H. H. Zhou, F.R. Fan, X. Wang, B. Ren, Z. Q. Tian.
- P18 Conducting Polymers And Transition Metal Oxide Nanocomposites As Material For Supercapacitors, R. M. Torresi, T. M. Benedetti and E. M. Ponzio.
- P19 Electrochemical Preparation of Stoichiometric CdSe nanostructures, J. X. Liu, W. H. Shang, J. Xiang, J.W. Yan, B. W. Mao.
- P20 The Synthetic Diamond/Pyrolytic Carbon Nanocomposites: A Study Using Lithium Intercalation, Yu. Pleskov, T. Kulova, A. Skundin, M. Krotova, V. Ralchenko, S. Korchagina, and S. Gordeev.
- P21 Properties of Nanostructured Surface Alloy Supported on Glassy Carbon in Electrocatalytic Reduction of Oxalic Acid, Sheng-Pei Chen, Tao Huang, Shi-Gang Sun.
- P22 Interplay of the Effects of Metal Adatoms and Coadsorbed Anions in Relation to Electrocatalysis of Peroxodisulfate Electroreduction, Oleg A. Petrii, Tamara G. Nikiforova.
- P23 Oxotungstates as a Tool to Study Nanoporous Structure of Electrocatalysts, Galina A. Tsirlina, Marina I. Borzenko, Elena V. Timofeeva.
- P24 Preparation and Characterization of Composite PVDF-HFP Membrane with Nano Silicon Dioxide, Ying Bai, Feng Wu, Chuan Wu.
- P25 CO oxidation on platinum nanoparticles catalyst prepared in water-in-oil microemulsion, I. R. Moraes, G. R. Cupido, J. F. R. Castro.
- P26 Electrochemical preparation of rhodium and platinum electrodes with surface structure at the nanometer scale, B. Ren, L. Cui, X. F. Lin, Z. Q. Tian.
- P27 Can CO adsorbates be oxidised on the Ru(0001) electrode under open circuit condition? The influence of anion, oxygen concentration and temperature, J. M. Jin, W. F. Lin and P. A. Christensen.
- P28 Methanol Electrooxidation on HCSs Supported Pt Catalysts, R.Z. Yang, X.P. Qiub, Z.X. Wanga, H. Lia, X.J. Huanga, L.Q. Chena.
- P29 Investigations Of The Platinum-Water Interface With Monoenergetic Electrons: Production Of  $H^-$  And  $H_2$ , L. Sanche, L. Parenteau, G. Leclerc, C. Vézina and Y. Zheng.
- P30 Cyclic Voltammetry and Electrochemical Impedance Studies of Electrolyte Characteristics on the Electrochemical Parameters of Supercapacitors, Alar Jānes, Liina Permann, Mati Arulepp, Enn Lust.
- P31 Determination of the kinetic parameters of the hydrogen reaction on nanocrystalline AB5 and AB2 alloys by electrochemical impedance spectroscopy, Tzvety Tzvetkoff, Ivan Kanazirski, Martin Bojinov.

- P32 A new method to improve the electrochemical performance of LiFePO<sub>4</sub>, Deyu Wang, Zhaoxiang Wang, Hong Li, Xuejie Huang, and Liquan Chen.
- P33 Increment of lithium storage capacity in B<sub>2</sub>O<sub>3</sub>/hard carbon composite, Xiaodong Wu<sup>1</sup>, Liquan Chen, Xuejie Huang.
- P34 Electrochemical Studies of Single Crystalline Lithium Manganese Oxide Nanobelts for Rechargeable Lithium Battery Application, Y.S. Fung, D.R. Zhu, Jimmy C. Yu.
- P35 Immunoglobulin G Immobilization on Gold Surfaces Modified with Alkanethiols, Z.-H. Wang, A. S. Viana, G. Jin<sup>1</sup>, L. M. Abrantes.
- P36 EIS Studies and Surface Characterization of Platinum Modified Electrodes as an Anodic Model for Direct Alcohol Fuel Cell.
- P37 Adsorption and Photocatalytic Decomposition of Methylene Blue on Monodispersed Nanoparticles M<sub>2</sub>O<sub>5</sub>×nH<sub>2</sub>O Catalyst, J. Wang, K. Ozawa, T. Nonami.
- P38 Assembly of Fluorosurfactants at the Electrode/Electrolyte Interface: Effects on Electrochemistry and Electrogenenerated Chemiluminescence , Yanbing Zu, Feng Li.
- P39 Nanoscale phosphorus distribution in electrodeposited [CoPtP(100 nm)/Cu(x nm)]<sub>n</sub> multilayer films, K. H. Lee, G. H. Kim, and W. Y. Jeung.
- P40 Indirect Electrochemical Etching of Complex 3-D Patterns of Metal, Semiconductor and Si Substrates, L.M. Jiang, L. Zhang, Z.F. Liu, K. Shi, Z.W. Tian, Z.Q. Tian.
- P41 Electrochemical in situ FTIRs Study of CO Adsorbed on Nanometer Scale Materials in Different Research Media, Hong-Zhou Yang, Han-Chun Wang, Shi-Gang Sun.
- P42 In situ FTIRS studies of CO adsorption on nanostructured surfaces: control of band-shape from adsorption to anti-adsorption, You-Jiang Chen, Jun-Tao Li, Sheng-Pei Chen, Shi-Gang Sun.
- P43 Studying Electrocatalytic Behavior of Small Organic and Biochemical Molecules on Single Crystal Electrodes, You-Jun Fan, Chun-Hua Zhen, Chun-Jie Fan, Shi-Gang Sun.
- P44 Seeing the Light: Identifying the electrochemical dimerization of an adsorbed monolayer on Au by in situ fluorescence, Emily Chung, Jeff Shepherd, Dan Bizzotto and Michael O. Wolf.
- P45 Influence Of Electrolysis Conditions On Growth Shapes Of Copper Crystals On Inert Substrates, A. Volenko, M. Tyur'kov, A. Vikarchuk, V. Dovzhenko, G. Ostapenko.
- P46 Potential dependent Surface alloying of Sb on Au(100), J. W. Yan, Q. Wu., W.H. Shang, B. W. Mao.
- P47 In Situ Current / Voltage Characterisation of Electrochemically Grown Metal / n-Si(111) Interfaces, M. Hugelmann, P. Hugelmann, and W. Schindler.
- P48 The Influence of Applied Voltage on the Electrophoretic Deposition of Boehmite Coatings on Titanium, M. S. Lazić, V. B. Mišković-Stanković, R. D. Petrović, Đ. T. Janačković, Lj. M. Pavlović
- P49 Influence of Chemical Composition and Post-Treatment of the TiO<sub>2</sub>/V<sub>2</sub>O<sub>5</sub> Composite Films on Its Corrosion Protection Properties, G. X. Shen, Y. C. Chen, C. J. Lin.

- P50 Optical Properties of the Electrochemically Etched Anodic Aluminum Oxide, L. Sun, C. Chen, C. J. Lin.
- P51 Evolutions of the Structures and Electrochemical Properties of Composite Polymer Membranes with Various Inorganic Fillerse, Ying Bai, Feng Wu, Chuan Wu.
- P52 Study And Development Of Electrochemical DNA Biosensors Based On Conducting Polymers, Tran Dai Lam, Tran Van Anh, Minh-Chau Pham, Benoit Piro.
- P53 Structural Characterization and Corrosion Resistance of Composite Al-Ce Alloys, P. Huber, E. Sabatani, Y. Golan, M. Arbel-Haddad.
- P54 Effects of Solution Temperature on Electronic Properties of Passive Film on Fe in pH 8.5 Borate Buffer Solution, S. J. Ahn and H. S. Kwon.
- P55 Investigation on the Initiation of Pitting Corrosion of 409L Stainless Steel by Micro-probe Technique, H. Y. Ha, H. S. Kwon and C. J. Park.