

The International Joint Meeting of the Polarographic Society of Japan (PSJ) and National Taiwan University (NTU)

-The 65th Annual Meeting of PSJ (第 65 回ポーラログラフイーおよび電気分析化学討論会) -

プログラム

今年の講演は 1 会場(国立台湾大学 知武館 高坂記念講義室)で行います

志方国際メダル受賞講演, 志方メダル受賞講演はそれぞれ 30 分, 20 分 (討論・交代時間を含む)

Keynote 講演 (8 件) 30 分 (討論・交代時間を含む)

依頼講演 (7 件) 20 分 (討論・交代時間を含む)

ポスター発表フラッシュプレゼン 1 分 (時間厳守)

ポスター発表 120 分 (交代・張替時間含む。奇数番号前半 55 分, 偶数番号後半 55 分)

発表者は発表時間には必ずポスターの前にお立ちください。ポスター会場は, 高坂記念講義室横の廊下の予定です。ポスターは, 縦長で縦 90 cm×横 60 cm の範囲に収まるものを作成ください。

第一日目 11 月 6 日 (水) 1st: November 6 (Wed)

午前 9 時 00 分 集合 国立台湾大学 知武館 高坂記念講義室

(学生の皆様へ: ポスターボード・会場の設営をお手伝いくださればと存じます。)

午前 9 時 00 分 受付開始

1 日目(11/6 水)		
Schedule	Number	Lecturer, Title
9:20-9:30		開会の挨拶 Opening
9:30-10:00	K1	Dr. Naoya Nishi (Kyoto University) Structure and reactions at the liquid-liquid interface of ionic liquids
10:00-10:30	K2	Prof. Chen Linchi (National Taiwan University) Hydrophobicity and Pseudo-Capacitance Control of Polyaniline for Solid-Contact Ion-Sensing
10:30-10:40		休憩 Tea break

10:40-11:10	K3	Prof. Shigeru Amemiya (University of Pittsburgh) Nanoscale Electrochemical Imaging of Single Nuclear Pore Complexes
11:10-11:40	K4	Prof. Philippe Buhlmann (University of Minnesota) More than a Liquid Junction: Effect of Stirring, Flow Rate, and Inward and Outward Electrolyte Diffusion on Reference Electrodes with Nanopore and Capillary Junctions
11:40-12:40		Lunch 昼食
12:40-13:20		General meeting 総会
13:20-13:35		Awards ceremony 志方国際メダル、志方メダル授賞式
13:40-14:10	S11	Prof. Kenji Kano (Kyoto University) Fundamentals and Applications of Redox Enzyme-functionalized Electrode Reactions
14:10-14:20		休憩 Tea break
14:20-14:40	S1	Dr. Akihiro Uehara (QST, 放医研) Spectroelectrochemical Study on Reduction Processes of Noble Metal and Actinide Ions
14:40-15:00	S2	Dr. Kohei Uematsu (Fukui Prefectural University) Bioelectrochemical studies on oxidoreductases and natural polyamino compounds
15:00-15:20	S3	Dr. Akira Kotani (Tokyo University Pharmacy and Life Sciences) Determination of Bioactive Compounds by Highly Sensitive Electrochemical Detection in Liquid Chromatography
15:20-15:25		休憩 Short break
15:25-15:55	1P1-1P30	Flash Presentation (1 min)
15:55-16:05		休憩 Short break & Preparation for poster presentation
16:05-17:00		Odd-numbered presentations
17:00-17:05		休憩 Short break & Replacement
17:05-18:00		Even-numbered presentations
18:30-		Banquet Living One 明達館 (www:livingone.com.tw)

第二日目 11月7日(木) 2nd: November 7 (Thu)

午前9時00分 開始

2日目(11/7木)		
Schedule	Number	Lecturer, Title
9:00-9:30	2P1-2P30	Flash Presentation (1 min)
9:30-9:35		休憩 Short break & Preparation for poster presentation
9:35-10:30		Odd-numbered presentations
10:30-10:35		休憩 Short break & Replacement
10:35-11:30		Even-numbered presentations
11:30-11:50	I1	Dr. Hiroshi Shiigi (Osaka Prefecture University) Electrochemical quantitative evaluation of bacterial activity
11:50-12:10	I2	Prof. Tomoyuki Yasukawa (University of Hyogo) Selective retrieval of single cells with a secretory ability of a target antibody in cell-based arrays using a microwell array electrode
12:10-13:10		Lunch 昼食
13:10-13:40	K5	Prof. Vladimír Mareček (The Academy of Sciences of the Czech Republic) Mechanism of Emulsion Formation in an Organic Solvent in the Presence of Hydrated Ions
13:40-14:10	K6	Dr. Shiuelin Li (Tunghai University) Extracellular Electron Transfer: How about Different Mechanisms Run Parallel?
14:10-14:20		休憩 Tea break
14:20-14:40	I3	Prof. Shigenobu Kasai (Tohoku Institute of Technology) Application of Electrochemical Measurement Technique in Cell study and Oxidative Stress
14:40-15:00	I4	Prof. Mikito Yasuzawa (Tokushima University) Preparation of glucose sensor using electrodeposition method and its application to in vivo measurement
15:00-15:10		休憩 Tea break
15:10-15:40	K7	Prof. Masato Tominaga (Saga University) Carbon nanotube platform for bioelectrochemistry

15:40-16:10	K8	Dr. Taro Uematsu (Osaka University) Improvement of optical properties for cadmium-free quantum dot fluorophores
16:10-16:20		休憩 Tea break
16:20-16:40	I5	Prof. Takeshi Abe (Kyoto University) Different Chemistry of Li- and Na-ion toward Carbon Electrode
16:40-17:00	I6	Dr. Zyun Siroma (AIST, 産総研) A Simple EIS Model to Describe diffusion and Migration inside a Porous Electrode
17:00-17:20	I7	Prof. Yoshiharu Uchimoto (Kyoto University) Operando X-ray Absorption Spectroscopic Study on Oxygen Reduction Reaction Kinetics of Pt Monolayer on Pd Core-shell Catalyst
17:20-17:40		学生ポスター賞表彰式、閉会 Awards ceremony (student poster presentation) & Closing

2日目の講演終了後、直ちに会場の後片付けに入ります。参加の学生さんはお手伝いよろしく御願います。

第三日目 11月8日(金) 3rd November 8 (Fri)

午前10時00分 開始

未定 (研究室ツアー&学内ツアーを予定)

座長表 (敬称略) Chairpersons

1 日目(11/6)

9:20 - 9:30	開会の挨拶 Opening	陳力麒 (R.L.C. Chen)、白井 理
9:30 -10:30	K1-K2	石松 亮一
10:40 -11:40	K3-K4	西 直哉
13:40 -14:10	SI1	大堺 利行
14:20 -15:20	I1,I2,I3	相樂 隆正
15:25 -15:55	FP 1P1-30	北隅 優希

2 日目(11/7)

9:00 - 9:30	FP 2P1-30	堀田 弘樹
11:30 -12:10	I1,I2	井上(安田) 久美
13:10 -14:10	K5,K6	前田 耕治
14:20-15:00	I3,I4	吉田 裕美
15:10-16:10	K7,K8	小山 宗孝
16:20-17:20	I5,I6,I7	山本 雅博
17:20 -17:40	受賞式・閉会式 Closing	大堺・陳・謝・白井

※学生発表 (表彰対象) Student award for excellent study

Poster presentation ポスター講演	
No.	Presenter (affiliation), title 講演者(所属), 講演題目
1P1 ※	<u>Shino Nakao</u> ¹ , Takenori Satomura ² , Shin-ichiro Suye ² , Masato Tominaga ¹ (¹ Saga Univ., ² Fukui Univ.) Boosting Bioelectrocatalysis of Multicopper Oxidase from Hyperthermophilic Archaea Induced by SWCNT immobilization
1P2 ※	<u>Kengo Ishiki</u> , Hiroshi Shiigi (Osaka Pref. Univ.) Kinetics of Intracellular Electron Generation in <i>Shewanella oneidensis</i> MR-1
1P3 ※	<u>Taiki Adachi</u> ¹ , Yuki Kitazumi ¹ , Osamu Shirai ¹ , Kunishige Kataoka ² , Kenji Kano ¹ (¹ Kyoto Univ., ² Kanazawa Univ.) A photosynthesis-mimetic solar cell based on bioelectrocatalysis
1P4 ※	<u>Ryoma Kumagai</u> ¹ , Saya Saito ¹ , Haruka Takanashi ¹ , Masashi Kumagai ² , Shigenobu Kasai ¹ (¹ Tohoku Institute of Technology, ² Morinokuma Animal Hospital) Evaluation of respiratory burst of immunocyte in bovine milk using SECM
1P5	<u>Ryoichi Ishimatsu</u> , Koji Nakano (Kyusyu Univ.) Excimer formation of pyrene in electrogenerated chemiluminescence
1P6	<u>Koichi Jeremiah Aoki</u> (Electrochemistry museum) Inevitability of peak potential shift – dedicated to late Prof. Ichimura –
1P7 ※	<u>Takeru Yamamoto</u> , Ryo Saito, Wataru Sugimoto, Masa-aki Haga (Chuo Univ.) Formation of Self-organized Film Composed of Graphene Oxide/Melamine on Electrogalvanized Steel Plate and its Anticorrosion Activity
1P8 ※	<u>Takumi Kawamoto</u> , Takashi Kakiuchi, Masahiro Yamamoto, Ryo Murakami (Konan Univ.) Interfacial properties of a binary ionic liquid composed of a potential-determining and a highly hydrophobic salts in contact with water
1P9 ※	<u>Terumasa Omatsu</u> , Kisho Hori, Naoto Ishida, Hotaru Minato, Yumi Yoshida, Kohji Maeda (Kyoto Institute of Technology) Mechanism of the ion transfer through a bilayer lipid membrane analyzed by an electrochemical method combined with fluorometry
1P10 ※	<u>Daiki Terazawa</u> , Munetaka Oyama (Kyoto Univ.) Electrocatalytic Properties of Noble Bimetal Modified Nickel Microparticles

1P11	<p><u>Tomoki Uchiyama</u>¹, Chen Liu¹, Kentaro Yamamoto¹, Naoki Takao², Hideto Imai², Seiho Sugawara³, Kazuhiko Shinohara³, Yoshiharu Uchimoto¹ (¹Kyoto Univ., ²Nissan ARC, ³FC-Cuibe)</p> <p>The effect of oxygen coverage and ionomer on oxygen reduction activity of Pt/C</p>
1P12 ※	<p><u>Gao Xiao</u>¹, Kentaro Yamamoto¹, Tomoyasu Hirai², Tomoki Uchiyama¹, Naoki Takao³, Hideto Imai³, Shota Katayama⁴, Seiho Sugawara⁴, Kazuhiko Shinohara⁴, Yoshiharu Uchimoto¹ (¹Kyoto Univ., ²Osaka Institute of Technology, ³Nissan ARC, ⁴FC-Cuibe)</p> <p>Morphological effect to proton conductivity Nafion thin-film on platinum cathode for polymer electrolyte fuel cell</p>
1P13 ※	<p><u>Peng Tang</u>^{1,2}, Sousuke Taniguchi^{1,2}, Guangyu Zhang¹, Koichi Jeremiah Aoki², Jingyuan Chen^{1,2} (¹Univ. Fukui, ²Electrochemistry museum)</p> <p>Electric double layer capacitance in mixtures of dimethyl sulfoxide and water</p>
1P14 ※	<p><u>Wataru Imura</u>, Akira Kitagawa, Hironobu Tahara, Takamasa Sagara (Nagasaki Univ.)</p> <p>Diffusion analysis of TEMPO derivatives in a viologen-type ionic liquid by CV and EPR</p>
1P15	<p><u>Kumi Y. Inoue</u>, , Siti Masturah Fakhruddin, Tomoki Iwama, Miho Ikegawa, Hitoshi Shiku, Tomokazu Matsue (Tohoku Univ.)</p> <p>Analytical applications of closed bipolar electrode array and consideration of its operating principle</p>
1P16 ※	<p><u>Maki Saito</u>, Kengo Ishiki, Hiroshi Shiigi (Osaka Pref. Univ.)</p> <p>Electrochemical Evaluation of Metabolic Activity of Bacteria Immobilized on conducting bioplatfrom</p>
1P17 ※	<p><u>Yutaro Takahashi</u>¹, Hoshi Hiroyoshi², Shigenobu Kasai¹ (¹Tohoku Institute of Technology, ²Research Institute for the Functinal Peptide)</p> <p>Detection and characterization of AGEs produced from immune cells using electrochemical techniques</p>
1P18 ※	<p><u>Yuya Kaida</u>, Yuya Hibino, Yuki Kitazumi, Osamu Shirai, Kenji Kano (Kyoto Univ.)</p> <p>Direct Electron Transfer-Type Bioelectrocatalysis by Downsized and Axial-Ligand Exchanged Variants of D-Fructose Dehydrogenase</p>

1P19 ※	<u>Kenji Matsumoto</u> , Hiroki Hotta, Yukihiro Kimura, Toshiyuki Osakai (Kobe Univ.) Analysis of reaction products of polyphenols with DPPH radical
1P20	Koji Murakami, Kisho Hori, Terumasa Omatsu, Masahiro Miyagi, Naoto Ishida, Hotaru Minato, Kohji Maeda, Mao Fukuyama, <u>Yumi Yoshida</u> (Kyoto Institute of Technology) Distribution of ionic species into the bilayer lipid membrane
1P21 ※	<u>Kazuki Terao</u> , Masato Suzuki, Ryota Kunikata, Atsushi Suda, Kumi Y. Inoue, Kosuke Ino, Tomokazu Matsue, Tomoyuki Yasukawa (Univ. of Hyogo) Toxicity evaluation of chemical substances based on the monitoring
1P22	<u>Y. Kitatsuji</u> , K. Ouchi, T. Yomogida, H. Otobe (Japan Atomic Energy Agency) Catalytic reduction of Uranyl ion by metal hydroxide nanoparticles
1P23	Jin Nishida, Jun Yang, Shunsuke Uchimura, Junko Matsuda, <u>Naotoshi Nakashima</u> (Kyushu Univ.) Design of Carbon Nanotube-based Non-precious Metal Electrocatalysts with High Performance
1P24 ※	<u>Yuri Nagai</u> , Erina Yoshida, Yu Fujii, and Toshiyuki Osakai (Kobe Univ.) A strategy for in silico prediction of the membrane permeability of drugs
1P25 ※	<u>Saeko Otani</u> ¹ , Kentaro Yamamoto ¹ , Hiroaki Imai ² , Toshihiko Mandai ³ , Tomoki Uchiyama ¹ , Toshiyuki Matsunaga ¹ , Takashi Kanamura ⁴ , Yoshiharu Uchimoto ¹ (¹ Kyoto Univ., ² Keio Univ., ³ NIMS, ⁴ Tokyo Metropolitan Univ.) Phase transition behavior of MgMn ₂ O ₄ cathode during magnesium ion insertion/extraction reactions
1P26 ※	<u>Datong Zhang</u> ¹ , Yuya Kitaguchi ¹ , Takeshi Tojigamori ² , Kazuto Ide ² , Shinji Nakanishi ² , Hideki Iba ² , Kentaro Yamamoto ¹ , Tomoki Uchiyama ¹ , Toshiyuki Matsunaga ¹ , Koji Amezawa ³ , Koichi Tsuchiya ⁴ , Yoshiharu Uchimoto ¹ (¹ Kyoto Univ., ² TOYOTA Motor Corporation, ³ Tohoku Univ., ⁴ NIMS) Electrochemical of copper nano-composite cathode for all-solid-state fluoride ion battery
1P27 ※	<u>Yadan Ren</u> , Ryusei Yamaguchi, Tomoki Uchiyama, Kentaro Yamamoto, Toshiyuki Matsunaga, Yoshiharu Uchimoto (Kyoto University) The state of Ni and O in Li doped NiO for oxygen evolution reaction

1P28 ※	<u>Ridong He</u> ^{1,2} , Koichi Jeremiah Aoki ² , and Jingyuan Chen ^{1,2} (¹ Univ. Fukui, ² Electrochemistry museum) Chronoamperometry for double-layer capacitance obeying the power-law
1P29 ※	<u>Yudai Tanaka</u> , Shoko Yamamoto, Hironobu Tahara, Takamasa Sagara (Nagasaki Univ.) Transport characteristics of a CT ionic liquid consisting of a viologen and a carbazole
1P30 ※	<u>Yi Kung</u> , Alexey Lihachev, Saulius Šatkauskas, Keng-Li Lan, Wen-Shiang Chen (National Taiwan Univ.) Electroporation by concentric-type needle electrodes and arrays
2P1	<u>Masahiro Yamamoto</u> (Konan Univ.) Electrical double layer across semiconductor(S) electrolyte solution(E), metal(M) S, S S interfaces
2P2 ※	<u>Sota Funo</u> , Munetaka Oyama (Kyoto Univ.) Electrocatalytic Oxidation of Ethanol on PtAu Modified Nickel Wire Electrodes
2P3 ※	<u>Shota Harakawa</u> , Seiya Tsujimura, Masanori Kaneko (Tsukuba Univ.) Electrochemistry of cofactor F430 as a methane generation catalyst
2P4	Kazushi Minai ¹ , Mao Fukuyama ² , Yumi Yoshida ¹ and <u>Kohji Maeda</u> ¹ (¹ Kyoto Institute of Technology, ² Tohoku University) Spatial analysis of membrane coupling between ion transport and electron transport
2P5 ※	<u>Shuo Cao</u> ¹ , Hidenori Miki ^{1,2} , Toshiyuki Matsunaga ¹ , Kentaro Yamamoto ¹ , Hiroyuki Nakaki ¹ , Shinji Nakanishi ² , Hideki Iba ² , Tomoki Uchiyama ¹ , Koji Amezawa ⁴ , Yoshiharu Uchimoto ¹ (¹ Kyoto Univ., ² TOYOTA Motor Corporation, ³ NIMS, ⁴ Tohoku Univ.) The relationship between phase distance and fluoride ion intercalation kinetic properties in all-solid-state fluoride ion battery
2P6 ※	<u>Ryusei Yamaguchi</u> , Tomoki Uchiyama, Kentaro Yamamoto, Toshiyuki Matsunaga, Yoshiharu Uchimoto (Kyoto University) The effect of cation mixing on activity and durability toward oxygen evolution reaction in LiNiO ₂

2P7 ※	<u>Zhiwei Mu</u> ¹ , Masakuni Takahashi ¹ , Yao Xiao ¹ , Hiromu Suzuki ¹ , Kentaro Yamamoto ¹ , Tomoki Uchiyama ¹ , Kentaro Uesugi ² , Akihisa Takeuchi ² , Atsushi Sakuda ³ , Akitoshi Hayashi ³ , Masahiro Tatsumisago ³ , Toshiyuki Matsunaga ¹ , Yoshiharu Uchimoto ¹ (¹ Kyoto Univ., ² JASRI, ³ Osaka Prefecture Univ.) Direct observation of Li metal dendrite growth in all-solid-state battery by using operando CT analysis
2P8 ※	<u>Ling Liu</u> ^{1,2} , Wataru Mizuno ^{1,2} , Koichi Jeremiah Aoki ² , Jingyuan Chen ^{1,2} (¹ Univ. Fukui, ² Electrochemistry museum) Cation-induced ionic diode phenomenon in the microhole coated with Nafion
2P9 ※	<u>Yuanyuan Liu</u> ^{1,2} , Bei Jia ^{1,2} , Koichi Jeremiah Aoki ² , Jingyuan Chen ^{1,2} (¹ Univ. Fukui, ² Electrochemistry museum) Detection of negative capacitance caused by redox reactions in cyclic voltammograms
2P10 ※	<u>Issei Kasai</u> , Yuki Kitazumi, Kenji Kano, Osamu Shirai (Kyoto Univ.) Propagation of the action potential among multiple cells
2P11 ※	<u>Ayu Kawano</u> , Hitomi Eguchi, Takamasa Sagara (Nagasaki Univ.) Electrochemistry of molecules bearing multiple viologen sites
2P12	<u>Yung-Fu Wang</u> (Light-Salt Testing Co. Ltd.) Development of bioelectrochemical barrier for BTEX degradation
2P13	<u>Shiue-Lin Li</u> , Yu-Xuan Liou, Yu-Ting Lin, Chi-Chang Lin (Tunghai University) Raman spectrum reveals cell-surface characteristics of <i>Shewanella decolorationis</i> NTOU1 under different pre-cultural conditions
2P14 ※	<u>Jui-Hong Weng</u> , Chih-Yu Lai, Lin-Chi Chen (National Taiwan Univ.) Elimination of the diffusion limit by flowing amperometry to enhance the sensitivity of electrochemical detection
2P15	<u>Chih-Yu Lai</u> , Wei-Chen Huang, Lin-Chi Chen (National Taiwan Univ.) EIS Modeling of Symmetric Electrodes for Aptasensing
2P16	<u>Yuki Kitazumi</u> , Seiji Nakanishi, Masahiro Yamamoto, Osamu Shirai, Kenji Kano (Kyoto Univ.) Modeling the acceleration of the redox reaction due to the heterogeneity of the electrical double layer caused by the microstructure at the electrode surface

2P17	<u>K. Ouchi</u> , A. Komatsu, K. Takao, Y. Kitatsuji, M. Watanabe (Japan Atomic Energy Agency) Electrochemical Behavior of Uranium(IV) in Ionic Liquid-DMF Mixtures
2P18 ※	<u>Takeshi Kato</u> ¹ , Kohei Uematsu ² , Hajime Katano ² , Kazuo Eda ¹ , Toshiyuki Osakai ¹ (¹ Kobe Univ., ² Fukui Pref. Univ.) Non-Bornian analysis of the Gibbs transfer energy of fluorinated anions at the 2H,3H-decafluoropentane/water interface
2P19 ※	<u>Zhuoran Li</u> ¹ , Yanchang Wang ¹ , Hidenori Miki ^{1,2} , Toshiyuki Matsunaga ¹ , Hiroshi Kageyama ¹ , Yoshihiro Tsujimoto ³ , Hiroyuki Nakaki ¹ , Shinji Nakanishi ² , Hideki Iba ² , Kentaro Yamamoto ¹ , Tomoki Uchiyama ¹ , Koji Amezawa ⁴ , Yoshiharu Uchimoto ¹ (¹ Kyoto Univ., ² TOYOTA Motor Corporation, ³ NIMS, ⁴ Tohoku Univ.) Electrochemical properties of Sr ₂ MO ₃ F (M = Ni, Co, Mn) oxyfluoride cathode for all-solid-state fluoride ion battery
2P20 ※	<u>Kodai Kashihara</u> , Ryusei Yamaguchi, Tomoki Uchiyama, Kentaro Yamamoto, Toshiyuki Matsunaga, Yoshiharu Uchimoto (Kyoto University) Development of operando techniques for investigation of catalyst-electrolyte interface by X-ray absorption spectroscopy
2P21 ※	<u>Tomoya Horiguchi</u> , Ryusei Yamaguchi, Tomoki Uchiyama, Kentaro Yamamoto, Toshiyuki Matsunaga, Yoshiharu Uchimoto (Kyoto University) Development of operando techniques on X-ray absorption spectroscopy under oxygen evolution reaction
2P22 ※	<u>Ru Wan</u> ^{1,2} , Kaho Imai ^{1,2} , Koichi Jeremiah Aoki ² , Jingyuan Chen ^{1,2} (¹ Univ. Fukui, ² Electrochemistry museum) Non-equivalence charges between reduction and oxidation by stripping voltammetry
2P23 ※	<u>Risako Shiraishi</u> , Takamasa Sagara (Nagasaki Univ.) Electroreflectance study of cation-coated Au nanoparticles immobilized on SAM-modified Au electrodes
2P24	<u>Hironobu Tahara</u> , Akira Kitagawa, Tomoya Ikeda, Takamasa Sagara (Nagasaki Univ.) Electron self-exchange (hopping) analysis of a viologen-type ionic liquid by CV and ESR

2P25 ※	<u>Mizue Wanibuchi</u> , Yui Takahashi, Yuki Kitazumi, Osamu Shirai, Kenji Kano (Kyoto Univ.) Effects of carbon nanostructures on direct-electron-transfer-type bioelectrocatalysis with a measure of the electrochemical effective area
2P26 ※	<u>Kentaro Ito</u> , Kumi Y. Inoue, Kosuke Ino, Yuji Nashimoto, Tomokazu Matsue, Hitoshi Shiku (Tohoku Univ.) Easy-to-use electrochemical endotoxin sensor
2P27 ※	<u>Chao-Chin Chang</u> , Chang-Ping Yu (National Taiwan Univ.) Quantifying impact of cathode biofouling in the bioelectrochemical wastewater treatment system: analysis of electrochemical performance and microbial community
2P28 ※	<u>Tomoki Iwama</u> , Kumi Y. Inoue, Hiroya Abe, Tomokazu Matsue, Hitoshi Shiku (Tohoku Univ.) High spatial-temporal electrochemical imaging system using closed bipolar electrode array and observation of biological phenomena
2P29 ※	<u>Wei-Li Shih</u> ¹ , Yi-Min Wu ¹ , Lin-Chi Chen ¹ , Cheng-Lan Lin ² (¹ National Taiwan Univ., ² Tamkang Univ.) A Potassium Ion-selective Microelectrode Using PEDOT Solid Contact
2P30	<u>Ho-Wei Chan</u> , Hsun-Yi Chen (National Taiwan Univ.) Investigation of electrochemical reaction mechanism during flash sintering of yttria-stabilized zirconia