

第45回固体イオニクス討論会プログラム

2019/11/26	D会場 (International Session)	
	Catalysts Chairman : Dino Klotz	
11:25	1D-01	Ni-loaded ceria microspheres for biogas reforming (A Department of Hydrogen Energy Systems, Graduate School of Engineering, Kyushu University, International Research Center for Hydrogen Energy, Kyushu University, Institute for Nanotechnology, Vietnam National University-Ho Chi Minh City, Vietnam Department of Mechanical Engineering, Faculty of Engineering, Kyushu University) ○Phuc Hoan Tu, Mio Sakamoto, Tin Chanh Duc Doan, Mau Chien Dang and Yusuke Shiratori
11:50	1D-02	Interaction of O ₂ , CO ₂ , and H ₂ O with Perovskite Surfaces. Insights from the theory (Kyushu University, International Institute for Carbon Neutral Energy Research) ○Aleksandar Staykov, Tatsumi Ishihara, John Kilner
12:15	Lunch Break 12:15-13:30	
	SOFC Chairman : Hitoshi Takamura	
13:30	1D-03	Deposition of Y ₂ O ₃ stabilized ZrO ₂ film on Ni-Fe metal substrate by PLD for toughness solid oxide fuel cell (Department of Applied Chemistry, Faculty of Engineering, Kyushu University, International Institute for Carbon Neutral Energy Research (WPI-I2CNER), Kyushu University) ○ Kang ByeongSu, Atsushi Takagaki, and Tatsumi Ishihara
13:55	1D-04	Factor Governing Sulfur Poisoning on La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} Cathode and Its Degradation Mechanism (National Institute of Advanced Industrial Science and Technology, Institute of Industrial Science, The University of Tokyo) ○Riyan Achmad Budiman, Katherine Develos-Bagarinao, Tomohiro Ishiyama, Haruo Kishimoto, Katsuhiko Yamaji, Teruhisa Horita, Harumi Yokokawa
14:20	1D-05	Increase of Performance on Solid Oxide Reversible Cells Using Rare Earth Oxide Infiltrated NiO-YSZ Tubular Substrate (Department of Applied Chemistry, Faculty of Engineering, Kyushu Univ., WPI-I2CNER, Kyushu Univ.) ○Zhe Tan, Tatsumi Ishihara
14:45	Intermission 14:45-15:00	
	Lithium Ion Conductor Chairman : Atsuo Yamada	
15:00	1D-06*	Non-Oxides for Li-ion Batteries; New Materials and New Processes (University of Glasgow) ○Duncan H. Gregory
15:40	1D-07*	Li _{4-x} Ge _{1-x} P _x O ₄ : Characterization of the electrical properties in thin films for possible use as solid state electrolytes in microbatteries (Paul Scherrer Institut, ETH Zürich, WPI I2CNER, Kyushu University, THEOS and MARVEL, École Polytechnique Fédérale de Lausanne) ○ Thomas Lippert, Elisa Gilardi, Xi Cheng, Giuliana Materzanini, Leonid Kahle, Nicola Marzari, Daniele Pergolesi
	Na & Oxide Ion Chairman : John A. Kilner	
16:20	1D-08	HPO ₃ ²⁻ as Building Unit for Sodium-Ion Battery Cathodes: Na ₂ Fe(HPO ₃) ₂ (School of Engineering, University of Tokyo, Kyoto University, ESICB) ○Ma Zihan, Laura Lander, Shin-ichi Nishimura, Masashi Okubo, Atsuo Yamada
16:45	1D-09	Evaluation of dissociative oxygen adsorption kinetics on Co-containing oxides by pulse isotopic exchange technique (Department of Materials Science, Graduate School of Engineering, Tohoku University) ○Yuto Tomura, Toma Tazawa, Itaru Oikawa, Hitoshi Takamura
17:10	1D-10	Synthesis and electrochemical analysis of A-site doped Bi ₄ NbO ₈ Cl (Kyushu University) ○Maksymilian Kluczny, Ishihara Tatsumi

* Invited Talk

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	ORR & Proton Conductor Chairman : Aleksandar Staykov	
9:30	2D-01	First-principles prediction of oxygen redox chemistry in spinel oxides (Department of Chemical System Engineering, School of Engineering, The University of Tokyo, Elemental Strategy Initiative for Catalysts & Batteries (ESICB), Kyoto University) ○Xiang-Mei Shi, Eriko Watanabe, Masashi Okubo, Atsuo Yamada
9:55	2D-02	Steam Electrolysis Using Protonic Solid Oxide Cells Fabricated Via Inverse Tape Casting (九大WPI-I2CNER, Forschungszentrum Jülich GmbH) ○Kwati Leonard, Mariya E. Ivanova, Wendelin Deibert, Wilhelm A. Meulenberg, Tatsumi Ishiraha, Hiroshige Matsumoto
10:20	Intermission 10:20-10:30	
	Oxide Ion Conductor Chairman : Kwati Leonard	
10:30	2D-03*	"A look beneath the surface" peering into a complex world (Imperial College London) ○ John A. Kilner, Mathew Niania
11:10	2D-04*	Phase transition of doped LaFeO ₃ in reducing atmosphere and their power generation property in intermediate temperature solid oxide fuel cell (Department of chemical Engineering, Wonkwang University) ○Young-Wan Ju
11:50	2D-05	Electrolysis Performance and Microstructure of Cu Ex-solved CuFe ₂ O ₄ Cathode Tuned by Feed CO ₂ -H ₂ O Gas Composition (Department of Applied Chemistry, Faculty of Engineering, Kyushu University, International Institute for Carbon-Neutral Energy Research (I2CNER), Kyushu University) ○Kuan-Ting Wu, Junko Matsuda, Atsushi Takagaki, Tatsumi Ishihara
12:15	Lunch Break 12:15-13:45	
	Ion & Proton Conductor Chairman : Koji Amezawa	
13:45	2D-06	Investigation of the paddle-wheel ion conduction mechanism in alkali and alkali-earth borohydrides using first principle MD (Institute for Materials Chemistry and Engineering, Kyushu University International Institute for Carbon-Neutral Energy Research (I2CNER), Kyushu University University of Glasgow) ○Nikolay Dimov, Aleksandar Staykov, Shigeto Okada, Duncan Gregory
14:10	2D-07	Protonic Conductivity of Layered Protonated Titanate in Water and Application to Water Electrolysis (九大WPI-I2CNER, 九大院工、九大院理、JAXA) ○Veeramani Vedyappan, Munemitsu Nomura, Shoichi Furukawa, Yuki Terayama, Hiroto Eguchi, Miho Yamauchi, Yoshitsugu Sone, Hiroshige Matsumoto
14:35	2D-08	Intelligent Behavior of La(Sr) _{n+1} Fe(M=Mn, Co, Ni)O _{3n+1} based Perovskite Oxide Electrodes and Propane fuel SOFC (KITEC, I2CNER, Kyushu University) ○Tae Ho Shin, Min Kyu Kim, Tatsumi Ishihara

* Invited Talk