SYMPOSIUM C

Solid state ionics: thin films for energy and information applications

Symposium Organizers:

Jennifer L.M. Rupp, Electrochemical Materials, Zurich, Switzerland

Wolfgang Preis, Montanuniversitaet Leoben, Austria

Roger A. De Souza, Institute of Physical Chemistry, Aachen, Germany

Igor Lubomirsky, Department of Materials and Interfaces, Rehovot, Israel

Erik M. Kelder, Faculty of Applied Sciences, Delft, The Netherlands
08:30 Ion beam analysis techniques applied to mixed conducting thin films: from surface reconstruction to combinatorial screening
M. Burriel1,2, A.M. Saranya1, A. Morata1, H. Téllez2,3, Y. Chen4, N. Tsvetkov4, B. Yildiz4, A. Tarancón1 and John A. Kitzer2,3
1 Catalonian Institute for Energy Research (IREC), Department of Advanced Materials for Energy 2Department of Materials, Imperial College London, London, SW7 2AZ, UK 3International Institute for Carbon-Neutral Energy Research, Kyushu University 4Laboratory for Electrochemical Interfaces, Massachusetts Institute of Technology, US

09:00 Visualization of electrochemical reduction zones by cathodic 180 Incorporation at model electrodes: strengths and limitations
Alexander K. Opitz (1), Markus Kubicek (1,2), Stefanie Huber (1), Tobias Huber (1), Andreas Nanning (1), Edvinas Navickas (1), Gerald Holzlechner (1), Herbert Hutter (1), and Jürgen Fleig (1)
(1) Vienna University of Technology, Institute of Chemistry Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria; (2) ETH Zurich, Department of Materials, Electrochemical Materials, Schaafgattstraße 30, 8093 Zurich, Switzerland

09:20 Preparation of La(Sr)Fe(Mn)O3 Film for dense anode of SOFC using LaGaO3 thin film electrolyte
Tatsushi Ishihara, Young-Wan Ju, Shintaro Ida
International Institute for Carbon Neutral Energy Research (WPI-I2CNER), Kyushu University, Fukuoka, Japan; Department of Applied Chemistry, Faculty of Engineering, Kyushu University, Fukuoka, Japan

09:40 Cathode materials for H-SOFC: bulk properties and oxygen exchange kinetics
D. Poetzsch, R. Merkle, J. Maier
Max Planck Institut for Solid State Research Stuttgart Germany

10:00 BREAK

10:30 Defect Chemistry of Alkaline Earth Metal (Sr/Ba) Titanates
Xin Guo
Laboratory of Solid State Ions, School of Materials Science and Engineering, Huazhong University of Science and Technology, Wuhan 430074, P.R. China

11:00 Electrochemical properties of La0.6Sr0.4FeO3-8 thin film electrodes under oxidizing and reducing conditions
Vienna University of Technology, Institute of Chemical Technologies and Analytics, Getreidemarkt 9, 1060 Vienna

11:20 Chemical Expansion in La0.5Ca0.5MnO3
M. H. Seran(1), H.-U. Habermeier(2), Y. Kuru(1)
(1)-Department of Metallurgical & Materials Engineering, Middle East Technical University, Dumlupinar Bulvari No:1, 06800, Ankara, Turkey (2)-Max Planck Institute for Solid State Research, Heisenberg str. 1, D-70569, Stuttgart, Germany

11:40 Anion and Cation Diffussion in Thin-Film SrRuO3
Henning Schraknepper, Regina Dittmann, Roger A. De Souza
Institute of Physical Chemistry RWTH Aachen University and JARA-FIT, Landoltweg 2, 52056 Aachen, Germany; Peter-Grünberg-Institute 7, Forschungszentrum Jülich, 52425 Jülich, Germany; Institute of Physical Chemistry RWTH Aachen University and JARA-FIT, Landoltweg 2, 52056 Aachen, Germany

12:00 LUNCH