



European Materials Research Society

**2014**

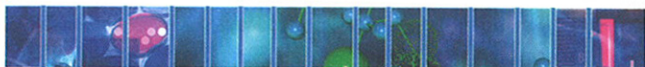
Lille - France

**Spring Meeting**

May 26<sup>th</sup> - 30<sup>th</sup>



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## 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



## Mixed Conducting Perovskites I : Prof. W. Preis and Dr. M. Burriel

- 08:30 **Ion beam analysis techniques applied to mixed conducting thin films: from surface reconstruction to combinatorial screening** C.6. 1  
 M. Burriel<sup>1,2</sup>, A.M. Saranya<sup>1</sup>, A. Morata<sup>1</sup>, H. T  lez<sup>2,3</sup>, Y. Chen<sup>4</sup>, N. Tsvetkov<sup>4</sup>, B. Yildiz<sup>4</sup>, A. Taranc  n<sup>1</sup> and John A. Kilner<sup>2,3</sup>  
<sup>1</sup> Catalonia Institute for Energy Research (IREC), Department of Advanced Materials for Energy <sup>2</sup>Department of Materials, Imperial College London, London, SW7 2AZ, UK <sup>3</sup>International Institute for Carbon-Neutral Energy Research, Kyushu University <sup>4</sup>Laboratory for Electrochemical Interfaces, Massachusetts Institute of Technology, US
- 09:00 **Visualization of electrochemical reduction zones by cathodic 18O incorporation at model electrodes: strengths and limitations** C.6. 2  
 Alexander K. Opitz (1), Markus Kubicek (1,2), Stefanie Huber (1), Tobias Huber (1), Andreas N  nning (1), Edvinas Navickas (1), Gerald Holzlechner (1), Herbert Hutter (1), and J  rgen Fleig (1)  
 (1) Vienna University of Technology, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria; (2) ETH Zurich, Department of Materials, Electrochemical Materials, Schafmattstra  e 30, 8093 Zurich, Switzerland
- 09:20 **Preparation of La(Sr)Fe(Mn)O3 Film for dense anode of SOFC using LaGaO3 thin film electrolyte** C.6. 3  
 Tatsumi 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** C.6. 4  
 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** C.6. 5  
 Xin Guo  
 Laboratory of Solid State Ionics, 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-  thin film electrodes under oxidizing and reducing conditions** C.6. 6  
 Kogler S., Langer-Hansel K., N  nning A., Opitz A., Hutter H., Fleig J.  
 Vienna University of Technology, Institute of Chemical Technologies and Analytics, Getreidemarkt 9, 1060 Vienna
- 11:20 **Chemical Expansion in La0.5Ca0.5MnO3** C.6. 7  
 M. H. Seren(1), H. -U. Habermeier(2), Y. Kuru(1)  
 (1)- Department of Metallurgical & Materials Engineering, Middle East Technical University, Dumlupinar Bulvarı 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 Diffusion in Thin-Film SrRuO3** C.6. 8  
 Henning Schraknepper, Regina Dittmann, Roger A. De Souza  
 Institute of Physical Chemistry RWTH Aachen University and JARA-FIT, Landoltweg 2, 52056 Aachen, Germany; Peter-Gr  nberg-Institute 7, Forschungszentrum J  lich, 52425 J  lich, Germany; Institute of Physical Chemistry RWTH Aachen University and JARA-FIT, Landoltweg 2, 52056 Aachen, Germany
- 12:00 **LUNCH**