11:20 **High Temperature CO2 Electrolysis on Perovskite-Type Electrodes: Evolution of Surface Chemistry Studied by Operando Photoelectr** R 6.4
Alexander K. Opitz, Andreas Nenning, Christoph Rameshan, Markus Kubicek, Thomas Götsch, Raoul Blume, Michael Hävecker, Axel Knop-Gericke, Günther Rupprechter, Bernhard Klötzer, Jürgen Fleig
TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria, TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria, TU Wien, Institute of Materials Chemistry, Getreidemarkt 9/165-PC, 1060 Vienna, Austria, TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria, University of Innsbruck, Institute of Physical Chemistry, Innrain 80-82, 6020 Innsbruck, Austria, Fritz Haber Institute of the Max Planck Society, Department of Inorganic Chemistry, Faradayweg 4-6, 14195 Berlin, Germany, Fritz Haber Institute of the Max Planck Society, Department of Inorganic Chemistry, Faradayweg 4-6, 14195 Berlin, Germany, Fritz Haber Institute of the Max Planck Society, Department of Inorganic Chemistry, Faradayweg 4-6, 14195 Berlin, Germany, TU Wien, Institute of Materials Chemistry, Getreidemarkt 9/165-PC, 1060 Vienna, Austria, University of Innsbruck, Institute of Physical Chemistry, Innrain 80-82, 6020 Innsbruck, Austria, TU Wien, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164-EC, 1060 Vienna, Austria,

11:35 **B-SITE DOPED STRONTIUM COBALT OXIDES FOR WATER SPLITTING VIA THERMOCHEMICAL REDOX REACTIONS** R 6.5
G. E. Wilson, R. Chai, J. B. Menendez, S. S. Pramana, A. Cavallaro, S. J. Skinner, A. Aguadero
Department of Materials, Imperial College London, Exhibition Road, London, SW7 2AZ, Department of Materials, Imperial College London, Exhibition Road, London, SW7 2AZ, Department of Chemical Engineering, Imperial College London, Exhibition Road, London, SW7 2AZ, School of Engineering, University of Newcastle, Merz Court, Newcastle, NE1 7RU, Department of Materials, Imperial College London, Exhibition Road, London, SW7 2AZ, Department of Materials, Imperial College London, Exhibition Road, London, SW7 2AZ

11:50 **Spinel-based Oxide Cathode used for High Temperature CO2/H2O Co-Electrolysis** R 6.6
Kuan-Ting Wu (a, b), Tatsumi Ishihara (a, b)
(a) Department of Applied Chemistry, Faculty of Engineering, Kyushu University, Japan (b) International Institute for Carbon-Neutral Energy Research, Kyushu University, Japan

12:05 **Mechanistic study on CO2 conversion reaction in heterogeneous alloy catalysts for solid oxide co-electrolysis cell** R 6.7
Si-Won Kim, Jongsup Hong, Jong-Heun Lee, Mansoo Park, Kyung Joong Yoon, Jong-Ho Lee
SW Kim, M. Park, K. J. Yoon, J.-H. Lee (High-temperature Energy Materials Research Center, KIST, Seoul 02792, Korea) J. Hong (Department of mechanical Engineering, Yonsei University, Seoul 03722, Korea) J. Lee (Department of Materials Science & Engineering, Korea University, Seoul 02841, Korea

12:20 **Lunch**

Solid State Energy Devices (III): Batteries : Albert Tarancón and William Chueh

14:00 INV **When Lithium Travels in Solid State Disorder for Novel Device Prototypes to Store Energy, Sense the Environment or Emulate Data** R 7.1
Jennifer L.M. Rupp
Massachusetts Institute of Technology MIT, Cambridge 02139, USA - jrupp@mit.edu

14:30 **Mechanism analysis of Li-ion conductivity enhancement in porous silica-based solid nanocomposite electrolytes** R 7.2
Xubin Chen (a b), Knut Gandrud (a), Maarten Mees (a), Akihiko Sagara (c), Mitsuhiro Murata (c), Morio Tomiyama (c), Mikinari Shimada (c), Philippe M. Vereecken (a b)
(a) imec, Kapeldreef 75, B-3001, Leuven, Belgium (b) Centre for Surface Chemistry and Catalysis, KU Leuven, B-3001 Leuven, Belgium (c) Technology Innovation Division, Panasonic Corporation, 1006, Kadoma, Kadoma City, Osaka 571-8501, Japan