Scientific Programme

Wednesday, 08.09.2010

14^{00} Welcome – Registration

Session 1: Oxygen transport membranes
Chairmen: M. Schröder – J. Caro

14^{15} Defects and Diffusion in Perovskite and Perovskite Related Materials
J.A. Kilner - Imperial College, London (Great Britain)

14^{45} Activation Layers for Oxygen Separation Membranes
M. Søgaard - Risø National Laboratory (Denmark)

15^{15} Oxygen transport kinetics of $Ba_{05}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}$ membranes
H.J.M. Bouwmeester - University of Twente (The Netherlands)

15^{45} NASA-OTM Project: Manufacturing and properties of thin film mixed ionic electronic conducting membranes for oxygen separation. - *Flash Research Report*
W.A. Meulenberg - Forschungszentrum Jülich (Germany)

16^{00} High performance ceramic hollow fibres for oxygen separation. - *Flash Research Report*
J. Diniz da Costa - University of Queensland (Australia)

16^{15} Coffe Break

Session 2: Theoretical modelling and Characterisation of transport and surface chemistry
Chairmen: M. Søgaard - H.J.M. Bouwmeester

16^{45} Do you know how to determine membrane gas permeation?
M. Schröder - RWTH Aachen University (Germany)

17^{15} First principles calculations of oxygen interaction with surface and transport through BSCF membrane
E. Kotomin - University Latvia (Latvia)

17^{45} Atomistic Modeling of MIEC membrane materials
M. Lumey - RWTH Aachen University (Germany)

18^{15} Determination of oxygen chemical transport parameters of MIEC materials from electrochemical impedance spectroscopy
E. Ivers-Tiffée - Karlsruhe Institute of Technology (Germany)

18^{45} Poster session

Thursday, 09.09.2010

Session 3: Advanced manufacturing techniques
Chairmen: J. Diniz da Costa – H. Richter

09^{00} Processing of Advanced Solid Oxide Fuel Cells
H.-P. Buchkremer - Forschungszentrum Jülich (Germany)

09^{30} Thermal Spray Processes and Material Development for Membrane Applications
M. Gindrat - Sulzer Metco (Switzerland)

10^{00} Advanced vapour deposition techniques for thin oxide films
J. Santiso - CSIC-CIN2 (Spain)

10^{30} Advances in the synthesis of dense hollow/fibre/capillaries for oxygen and hydrogen separation
A. Buekenhoudt - Vito (Belgium)

11^{00} Advanced fabrication techniques for supported thin-film membranes
J. Glasscock - Risø National Laboratory- DTU (Denmark)

11^{30} Coffe Break

Session 4: Hydrogen permeable membranes
Chairmen: E. Ivers-Tiffée - D. Stöver

12^{00} Can conductivity characteristics and defect chemistry predict hydrogen permeation and vice versa?
R. Haugsrud - University of Oslo (Norway)

12^{30} Hydrogen permeation membranes, applications and materials
N. Bonanos - Risø National Laboratory - DTU (Denmark)

13^{00} Hydrogen permeable membranes based on mixed protonic-electronic conductors. - *Flash Research Report*
J. M. Serra - CSIC-ITQ (Spain)

13^{20} Lunch

15^{00} Metal-silica membranes for hydrogen separation
J. Diniz da Costa - University of Queensland (Australia)

15^{30} Effect of doping on the electrical properties of proton conducting ceramics. - *Flash Research Report*
M. Ivanova - Forschungszentrum Jülich (Germany)

15^{50} Coffee Break Poster session

Session 5: Student session
Chairmen: J.A. Kilner – N. Bonanos

16^{40}-18^{20} Student Session (7 oral presentations)

19^{00} Tour & Banquet

Friday, 10.09.2010

Session 6: Application to catalytic processes and advanced separations
Chairmen: J.M. Serra - W.A. Meulenberg

09^{40} Taylor-made zeolites for gas separation processes
F. Rey - CSIC-ITQ (Spain)

10^{25} Catalytic membrane reactors - perspectives and challenges
J. Caro - University Hannover (Germany)

10^{55} Selective oxidative conversion of light hydrocarbons using catalytic modified dense ionic oxygen conducting membranes
C. Mirodatos - IRCELYON-CNRS (France)

11^{25} Development and evaluation of silicalite-1 membranes for the 1-butene/i-butene separation - *Flash Research Report*
H. Voss - BASF (Germany)

11^{45} Coffee break

12^{00} Ceramic membrane production in industrial scale
H. Richter – Fraunhofer IKTS (Germany)

12^{30} Structural and chemical requirements of metal-organic frameworks for hydrogen storage
G. Sastre - CSIC-ITQ (Spain)

13^{00} Lunch

15^{00} R&D strategies for the reduction of CO_2 emissions from fossil fuel-fired power generation
M. Modigell - RWTH Aachen University (Germany)

15^{30} Oxyfuel combustion: implementation and opportunities - *Flash Report*
E. Moreno - Abengoa (Spain)

15^{50} Integration of hydrogen separation membrane reactors in low CO_2 emission power stations
P. Chiesa - Politecnico di Milano (Italy)

16^{20} Concluding Remarks

18^{30} Students Event on the Beach