



SYMPOSIUM A1

Carbon dioxide recovery & circular economy of carbon

Monday 11 May 2015

Room Jeanne de Flandre 3 (Level 11)

(Join session with Symposium A: Materials, mechanism and devices in nano energy)

I. GENERAL INTRODUCTION

9:00-9:15 **European strategy on CO₂**, Rodrigo Martins, EMRS

II. POINT OF VIEW OF A PIONEER

9:15-9:45 **Carbon dioxide to methane via electrolytic hydrogen generation for intermittent renewable energy supply**, K. Hashimoto, Tohoku Institute of Technology, Japan

III. STRATEGIES AND PERSPECTIVES

9:45-10:15 **CO₂ chemical conversion to manufacture fuels, chemicals and materials**, A. El khamlichi, ADEME, France

10:15-10:30 Coffee break

IV. CARBON DIOXIDE AS A RAW MATERIAL FOR INDUSTRIAL PROCESSES

10:30-11:00 **Italcementi Group CCS initiatives**, G. Cinti, C.T.G. S.p.A, Italy

11:00-11:30 **CO₂ as a raw material for chemistry: An industrial perspective**, G. Mignani, Solvay, France

11:30-12:00 **The CO₂ in the Cement Industry Emissions, Capture & Uses**, M. Gimenez, Lafarge, France

12:00-12:30 **CO₂ reutilization in industrial projects – state of art and realization of concrete projects for the production of renewable methane and solid products based on CO₂**, S. Rieke, ETOGAS GmbH, Germany

12:30-13:00: **Pilot arc process for waste treatment**, I. Kumkova & V. Popov, Institute for Electrophysics and electric Power, RAS, Russia

13:00-14:30 Lunch time

V. THE EUROPEAN PROJECT CEOPS AND ITS RESULTS

14:30-14:50 **CEOPS project: a sustainable approach of fine electrochemistry catalysis from CO₂ reduction under different processes**, L. Bedel, CEA LITEN, France

14:50-15:10 **Carbon dioxide reduction for energy storage under a plasma fluidized catalytic bed reactor** A. Stephane, CEA LITEN, France

15:10-15:30 **Activation of CO₂ by plasma electrocatalysis**, J. Amouroux, ENSCP

15:30-15:50 **Photocatalytic synthesis of methanol via partial oxidation of synthetic natural gas**, T. Andreu, IREC, Spain



15:50-16:10 **Photocatalytic CO₂ Reduction Utilizing Cp*Rh-based Catalysts within Metal-Organic Frameworks** J. Bonnefoy, IRCELYON, France

16:10-16:40 Coffee break

16:40-17:00 **Efficient carbon dioxide reduction in ionic liquid based electrolytes** A. Machado, Omnidea, Portugal

17:00-17:20 **CO₂ is an emerging raw material in polymer industry**, X. Wang, Key lab of Polymer Ecomaterials, Chinese Academy of Sciences, Changchun Institute of Applied Chemistry, CAS

17:20-17:50 **Environmental evaluation of low carbon footprint methanol produced by the CEOPS process**, M. Pöhlmann, CCB, Germany

17:50-18:05 **European cluster on catalysis**, S. Gross, IENI-CNR, Dipartimento di Scienze Chimiche, Università di Padova, Italy

18:05-18:20 **The SCOT project**, T. Brun, Axelera, France

18:20-18:40 **Insight into a solar refinery based on photoelectrocatalysis** J.R.Morante, IREC, Spain