



**International workshop on Carbon dioxide: a raw material
An intergenerational forum for student and scientists**

Saturday, September 19th 2015 (9:00 – 18:00)

Carbon dioxide Management:

the raw material of the industrial revolution of the 21st century

Key steps: capture, material synthesis, energy storage

Chairman: Jacques Amouroux DHC
E-MRS UPMC/ENSCP France

Scientific committee:

- Urszula Narkiewicz
West Pomeranian university technology, Poland
- Juan Ramon Morante
IREC Spain
- Laurent Bedel
Head of CEOPS. CEA France
- Paul Siffert
E-MRS general Secretary

Brief summary:

Carbon dioxide is a key molecule for life and food. Its properties as a raw material open new industrial fields for the great challenge of our century: energy storage

from renewable energy sources and a building block for new polymers and synfuel, both contributing to a better control of CO₂ emission.

The challenge of the European Commission project CEOPS is to develop new catalysts or electro catalyst. The CEOPS team will present results, industries, and starting way for the race of carbon dioxide recycling.

Representatives of the industry and the academy will be invited to present results, processes and industrial innovations of the field.

Program

First part: the circular economy of carbon: the challenge of the next 50 years

1. *9.00-9.30: General introduction*

Rodrigo Ferrao de Paiva Martins Uninova/CEMOP

Member of the advisory Board of Horizon 2020 in DG Research and Innovation

2. *9.30-10.00: Carbon recovery and circular economy: from research to industrial scale up*

Jacques Amouroux UPMC/ENSCP DHC, E-MRS /CEOPS program

3. *10.00-10.30: Carbon dioxide and energy storage of renewable energy sources*

Koji Hashimoto, Tohoku Institute of Technology / Tohoku University Japan
Coffee break and posters

4. *11.00-11.30: Photocatalysis and new materials for hydrogen production*

Juan-Ramon Morante, IREC /Spain

5. *11.30-12.00: Discussion with the audience*

Questions: Challenges, strategy, prospective, innovations, wellbeing, energy sources, consumption

12.00-13.30 lunch and posters

Second part: innovations and new materials

6. *14.00-14.30: Clean coal and CCS*

Polish institute

7. 14.30-15.00: Carbon capture on solid sorbents
Urszula Narkiewicz, West pomeranian University of Technology, Poland
8. 15.00-15.30: Waste treatment and carbon dioxide
Irina Kumkova, Institute of Electrophysics and Electric power, RSA Russia
9. 15.30-16.00: electrocatalysis for Carbon dioxide recovery /CEOPS program
Laurent Bedel CEA France
Coffee break and posters
- 10.16.30-17.00: catalysis innovation a key step for Carbon dioxide reduction
Carlos Manuel Faria de Barros Henriques, IST University-Portugal
- 11.17.00-17.30: innovation in China: from laboratory to industrial production of polycarbonates
Xianhong Wang Changchun Institute of Applied Chemistry CAS China

17.30-18.00: Carbon dioxide a raw material for the future: dream or reality

Forum of discussion and industrial development Professor Jacques Amouroux

Posters:

All participants have the possibility to display posters relative to their work in the concerned field.