Summer School on Carbon dioxide: a raw material
An intergenerational forum for students 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

This project has received funding from the European Union Seventh Framework Programme [FP7/2007-2013] under grant agreement n° 309984

from renewable energy sources and a building block for new polymers and synfuel, both contributing to a better control of CO_2 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, CEMOP / UNINOVA, Portugal
   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, France
3. 10.00-10.30: Carbon dioxide and energy storage of renewable energy sources
   Koji Hashimoto, Tohoku Institute of Technology/Tohoku University, Japan

   10.30-11.00: 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

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Second part: innovations and new materials

6. 14.00-14.30: Advanced CO2 capture pilot plant at Toron's coal-fired power plant
   Lucyna Wieclaw-Solny, Institute of chemical processing of Coal, Poland
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
   Victor Popov, Institute of Electrophysics and Electric power, RSA, Russia
9. 15.30-16.00: Electrocatalysis for Carbon dioxide recovery
   Laurent Bedel, CEA, France

   16.00-16.30: 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. 17.00-17.15: Innovation in China: from laboratory to industrial production of polycarbonates
    Xianhong Wang, Changchun Institute of Applied Chemistry CAS, China
12. 17.15-17.30: Perspective in catalytic CO2 conversion into valuable products
    Wojciech Gac, Marie-Curie-Sklodowska University, Poland

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.

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