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<http://photo-catalysis.org/>

Title: **Synthesis of New Materials for Catalysis and Sustainable Chemical Processes**

(Synteza nowych materiałów dla Katalizy i Zrównoważonych Procesów Chemicznych)



Number of hours per semester: 15 hours divided into: nine (9) meetings (8 meetings for approx. 1.5h and 1 meeting for approx. 1h).

Lecture language: to choose between English and Polish (language lecture will depend on the presence of foreign Ph.D. students among the registered people. Slides in English).

Lecture timing and place: Starting from 17.11.2016 and finishing at 16.02.2017 (nine meetings in total). Every Thursday at 16 p.m., room SNS-IChF-PAN.

Registration for the lecture: by e-mail till 13.11.2016 (jcarloscolmenares@ichf.edu.pl).

Method of assessment: attendance + a short final test or “5-min flash presentation of a selected subject in the frame of the lecture content with discussions”.

Content of the lecture:

- What we understand by Green Chemistry and Sustainable Chemical Processes
- An overview on the fundamentals of catalysis
- Homogeneously Catalyzed Industrial Processes
- Biocatalysis
- Heterogeneously Catalyzed Processes in Industry
- Environmental Catalysis and Green Chemistry
- Catalysis in Novel Reaction Media
- Planning, Development, and Testing of Catalysts
- Future Development of Catalysis and Sustainable Chemical Processes