ΙΤΕ/ΙΕΧΜΗ

ΣΕΜΙΝΑΡΙΟ

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ΟΜΙΛΗΤΗΣ: **Αλέξης Λυκουργιώτης,** Καθηγητής
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ΘΕΜΑ: **Ερευνητικές τάσεις στην ανάπτυξη καταλυτών βασισμένων στο νικέλιο για το μετασχηματισμό ελαίων σε πράσινο ντίζελ**

Trends in the development of nickel based catalysts for the transformation of oils into green diesel

ΤΟΠΟΣ: Αίθουσα Σεμιναρίων ΙΤΕ/ΙΕΧΜΗ

ΗΜΕΡΟΜΗΝΙΑ: **Δευτέρα, 3 Νοεμβρίου 2014**

ΩΡΑ: **12:30**

ΠΕΡΙΛΗΨΗ

Triglycerides-based biomasses such as plant oils, animal fats, waste cooking and micro-algal oils can be upgraded by selective deoxyganation (SDO) to provide green diesel (hydrocarbons in the diesel range). Intensive work in the last ten years has shown that the noble metals (mainly palladium) and the conventional sulphides NiMo, CoMo and NiW, supported on high surface area carriers, are promising catalysts. However, the high cost of the noble metallic catalysts and the eventual S- contamination of the end product when using the aforementioned sulfided catalysts have rise intensive parallel research in the last three years for developing low cost Ni-based non- sulfided catalysts. The research effort seems to focus on the following issues: (i) comparison of nickel metallic catalysts to the noble metals and sulphided catalysts, (ii) effect of support, promoter and preparation method on the catalytic performance of the nickel metallic catalysts, (iii) SDO pathways over nickel metallic catalysts, (iv) development of nickel phosphide catalysts and NiMo, CoMo or NiW non-sulphided catalysts (reduced, carbides, nitrides).

In the present lecture we critically review the contributions relevant to each one of the aforementioned subjects for obtaining a synthetic picture concerning the progress pointed out so far and the future perspectives as well.

ΣΥΝΤΟΜΟ ΒΙΟΓΡΑΦΙΚΟ

Prof. Alexis Lycourghiotis was born in Athens in 1947. He received his bachelor (1971), Ph.D. (1974) and readership (1978) from the Chemistry department of the University of Patras (Greece). He worked as a research fellow at the Universite Catholique de Louvain, (Groupe de Physico-Chimie Minerale et de Catalyse, Louvain la Neuve, Belgium). He has been Professor and Head of the aforementioned department (1987−1988), Rector of the University of Patras (1988−1994), President of the Board of Directors of the Hellenic Open University (1995−2004), President of the National Council of Education, Greece (2010−2013) and Director of the post-graduate program "Catalysis and environmental protection" of the Hellenic Open University(2005-2014).

His research interest is focused on heterogeneous catalysis, interfacial chemistry, molecular synthesis of supported catalysts and environmental catalysis. He has published 156 journal papers, 4 papers in collective volumes and about 100 symposium communications. He has received more than 2.800 citations and his H value is equal 31. He has supervised 12 doctoral theses and a large number of master theses. He is referee in 18 research journals and member of the editorial board of «Open Catalysis Journal».