

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

Tome 56, N° 6

Jun 2011

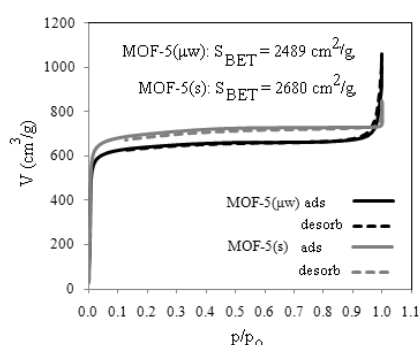
Catalysis in Roumania 2011

Rev. Roum. Chim., 2011, 56(6), 581-582

## PAPERS

**Gabriela BLĂNIȚĂ, Ovidiu ARDELEAN, Dan LUPU, Gheorghe BORODI, Maria MIHEȚ, Maria COROȘ, Mircea VLASSA, Ioan MIȘAN, Ioan COLDEA and Gabriel POPENECIU**

Microwave assisted synthesis of MOF-5 at atmospheric pressure

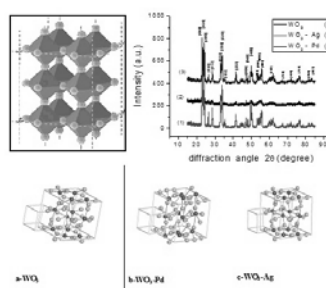


Rev. Roum. Chim., 2011, 56(6), 583-588

**Key words:** metal-organic framework, MOF-5, microwave synthesis at ambient pressure.

**Emil INDREA, Ecaterina BICA, Elisabeth-Jeanne POPOVICI, Ramona-Crina SUCIU, Marcela Corina ROȘU and Teofil-Danuț SILIPAȘ**

Rietveld refinement of power X-ray diffraction of nanocrystalline noble metals – tungsten trioxide

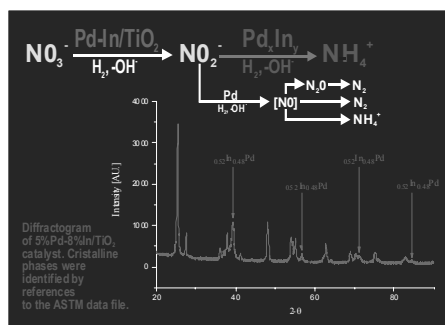


Rev. Roum. Chim., 2011, 56(6), 589-593

**Key words:** photocatalysts, tungsten trioxide, sol-gel, microstructure, Rietveld method.

**Natasza KRAWCZYK, Izabela WITOŃSKA, Aleksandra KRÓLAK, Magdalena FRAJTAK and Stanisław KARSKI**

Catalytic hydrogenation of nitrates on Pd-In/TiO<sub>2</sub> catalysts

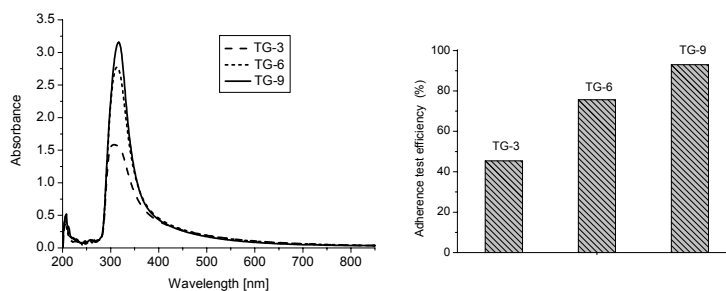


Rev. Roum. Chim., 2011, 56(6), 595-600

**Key words:** nitrate removal, Pd-In/TiO<sub>2</sub> catalysts, catalytic denitrification.

**Marcela-Corina ROȘU,**  
**Ramona-Crina SUCIU,**  
**Simina-Virginia DREVE,**  
**Teofil-Dănuț SILIPAȘ, Ioan BRATU and**  
**Emil INDREA**

The influence of TiO<sub>2</sub> content in preparation of TiO<sub>2</sub>/ITO nanostructured films

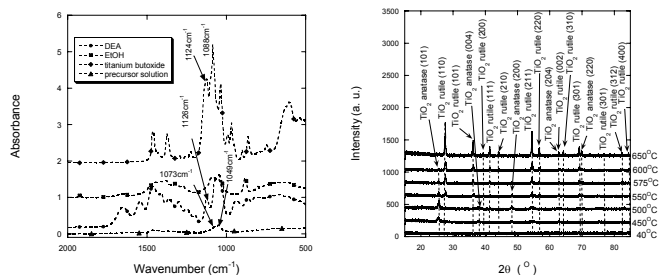


**Key words:** TiO<sub>2</sub>, photocatalyst, photocatalytic activity, nanostructured films.

*Rev. Roum. Chim.*, 2011, 56(6), 601-605

**Ramona-Crina SUCIU,**  
**Marcela-Corina ROȘU,**  
**Teofil-Dănuț SILIPAȘ,**  
**Alexandru Radu BIRIȘ, Ioan BRATU and**  
**Emil INDREA**

TiO<sub>2</sub> thin films prepared by spin coating technique

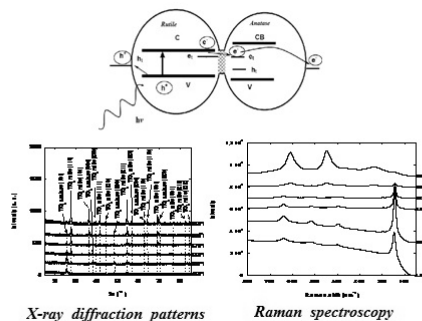


**Key words:** sol-gel, titanium diethanolamine complex, photocatalysts, microstructure, TiO<sub>2</sub>.

*Rev. Roum. Chim.*, 2011, 56(6), 607-612

**Emil INDREA, Ramona-Crina SUCIU,**  
**Marcela-Corina Roșu and**  
**Teofil-Dănuț SILIPAȘ**

Rietveld analysis of nanocrystalline titania prepared by sol-gel method

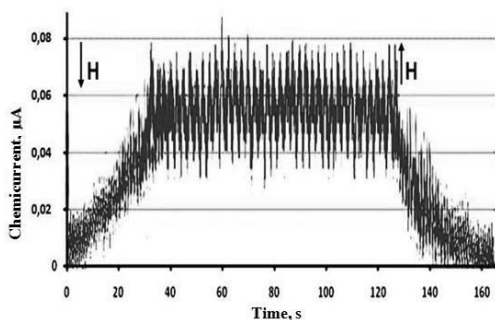


**Key words:** photocatalysts, nanocrystalline titania, sol-gel, microstructure, Rietveld method.

*Rev. Roum. Chim.*, 2011, 56(6), 613-618

**Vladislav V. STYROV and**  
**Sergei V. SIMCHENKO**

A means for insight into the nonequilibrium electronic processes during heterogeneous chemical reactions

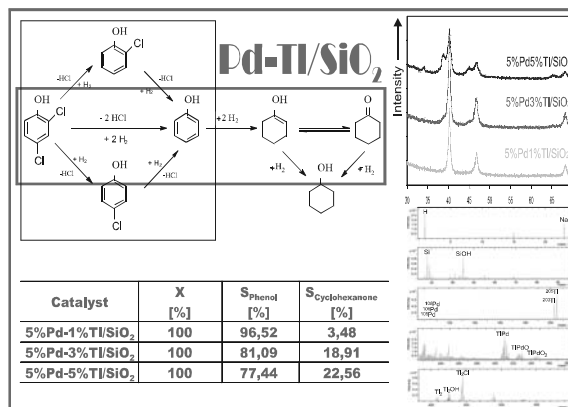


**Key words:** selenium, p-n junction, chemicurrent, atomic hydrogen, nonequilibrium states in catalysis.

*Rev. Roum. Chim.*, 2011, 56(6), 619-624

Aleksandra KRÓLAK, Izabela WITÓŃSKA,  
Natasza KRAWCZYK, Magdalena FRAJTAK  
and Stanisław KARSKI

Stability of Pd/SiO<sub>2</sub> and Pd-Tl/SiO<sub>2</sub> catalysts in  
hydrodechlorination of 2,4-dichlorophenol

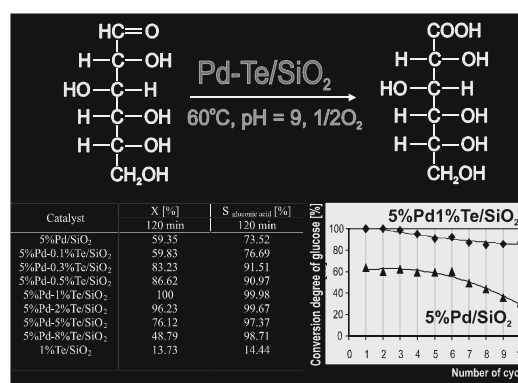


**Key words:** catalytic dehydrogenation, Pd-Tl/SiO<sub>2</sub> catalysts,  
hydrodechlorination of 2,4-dichlorophenol.

*Rev. Roum. Chim.*, 2011, 56(6), 625-630

Magdalena FRAJTAK, Izabela WITÓŃSKA,  
Aleksandra KRÓLAK, Natasza KRAWCZYK  
and Stanisław KARSKI

The influence of tellurium addition to supported  
palladium catalysts on their catalytic properties in  
glucose oxidation

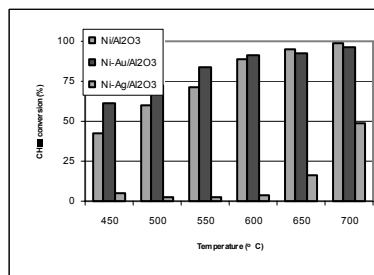


**Key words:** catalytic oxidation, Pd-Te/SiO<sub>2</sub> catalysts, oxidation of glucose.

*Rev. Roum. Chim.*, 2011, 56(6), 631-635

Mihaela D. LAZAR, Monica DAN,  
Maria MIHET, Valer ALMASAN,  
Vasile REDNIC and George BORODI

Hydrogen production by low temperature  
methane steam reforming using Ag and Au  
modified alumina supported nickel catalysts

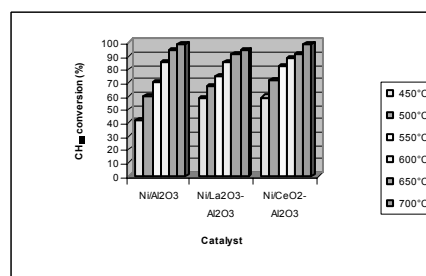


**Key words:** hydrogen, methane steam reforming, Ni-Au catalysts,  
Ni-Ag catalysts.

*Rev. Roum. Chim.*, 2011, 56(6), 637-642

Monica DAN, Mihaela D. LAZAR,  
Vasile REDNIC, Valer ALMASAN

Methane steam reforming over Ni/Al<sub>2</sub>O<sub>3</sub>  
promoted by CeO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub>



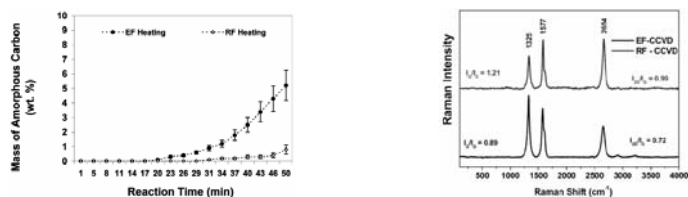
**Key words:** hydrogen, methane steam reforming, oxide promoted  
Ni catalysts.

*Rev. Roum. Chim.*, 2011, 56(6), 643-649

**Ștefania ȘIMON, Alexandru R. BIRIȘ,  
Dan M. LUPU, Ioan MIȘAN,  
Alexandru S. BIRIȘ, Simona CLICHICI and  
Cornel IANCU**

Carbon nanotubes *via* catalytic chemical vapor deposition method using induction heating – an advantageous route

*Rev. Roum. Chim.*, 2011, 56(6), 651-654

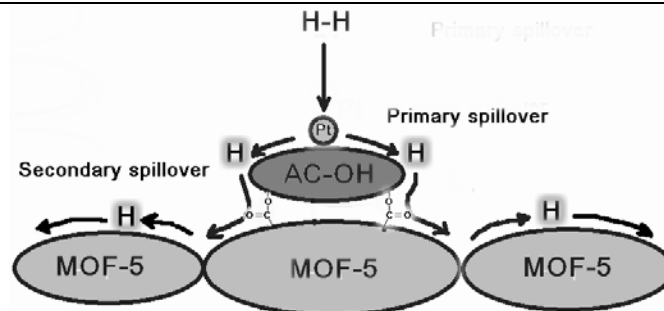


**Key words:** RF-CCVD, EF-CCVD, MWCNT, SWCNT.

**Ovidiu ARDELEAN, Gabriela BLĂNIȚA,  
Maria MIHEȚ, Ioan COLDEA, Dan LUPU,  
and Petru PALADE**

Supported Pt and Pd catalysts as additive for hydrogen adsorption enhancement in MOFs

*Rev. Roum. Chim.*, 2011, 56(6), 655-657

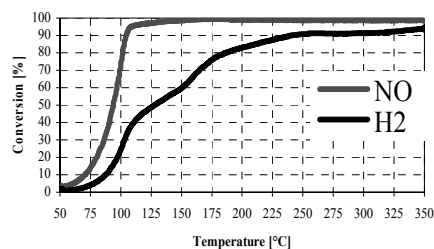


**Key words:** metal-organic frameworks, spillover, hydrogen adsorption.

**Maria MIHEȚ, Mihaela D. LAZĂR,  
Valer ALMĂȘAN and Gheorghe BORODI**

Low temperature hydrogen selective catalytic reduction of NO and Pd/Al<sub>2</sub>O<sub>3</sub>

*Rev. Roum. Chim.*, 2011, 56(6), 659-665

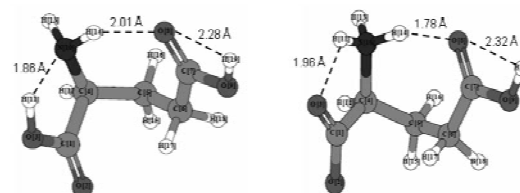


**Key words:** NO<sub>x</sub>, H<sub>2</sub>-SCR, Pd/Al<sub>2</sub>O<sub>3</sub>, NO-TPD.

**Adriana VULCU, Camelia BERGHIAN  
GROSAN, Maria CHIRIAC and  
Valer ALMASAN**

The <sup>15</sup>N labelled L-glutamic acid: experimental and computational NMR studies

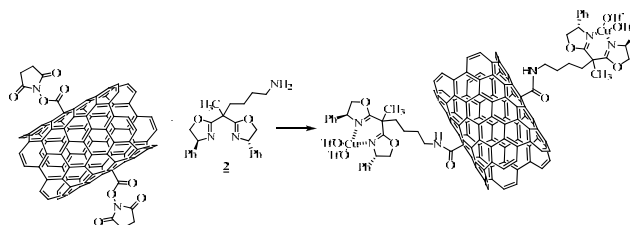
*Rev. Roum. Chim.*, 2011, 56(6), 667-674



**Key words:** L-[<sup>15</sup>N]-glutamic acid, biosynthesis, NMR, DFT, B3LYP.

**Ahmed MOUSSAIF, Roberto MARTIN,  
Youssef RAMLI, Rachid ZNIBER,  
Redouane ACHOUR, Mostafa EL GHOUL,  
Mercedes ALVARO and  
Hermenegildo GARCIA**

Chiral bis(oxazoline)copper(II) covalently anchored to single wall carbon nanotube as recoverable catalyst for enantioselective Friedel-Crafts hydroxyalkylation



**Key words:** single wall carbon nanotubes, soluble single wall carbon nanotubes, enantioselective catalysts, chiral bisoxazolines, recoverable homogeneous catalysts.

*Rev. Roum. Chim.*, 2011, 56(6), 675-679