

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

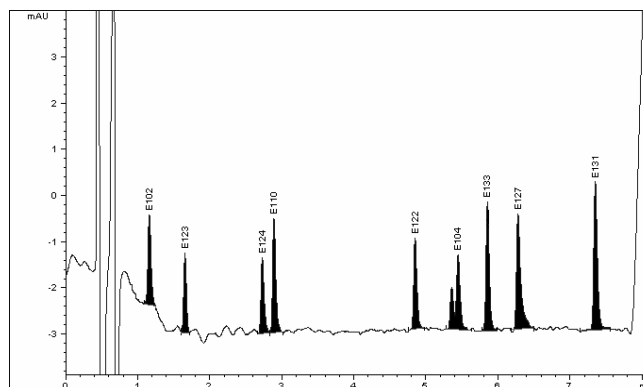
Tome 59, N° 9

Septembre 2014

## PAPERS

Laurian VLASE, Dana MUNTEAN,  
Simona Codruta COBZAC and Lorena FILIP

Development and validation of an HPLC-UV  
method for determination of synthetic food  
colorants



**Key words:** synthetic food colorants, liquid chromatography,  
method validation.

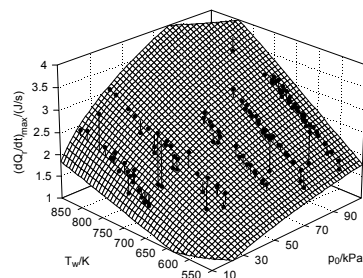
Rev. Roum. Chim., 2014, 59(9), 719-725

Maria MITU, Valentin MUNTEANU,  
Domnina RAZUS and Dumitru OANCEA

Kinetics of isothermal catalytic ignition and  
combustion of LPG-air mixtures on platinum wire

$$\text{LPG-air mixtures } (dQ_c/dt)_{\max} = a(p_0)^b \exp(-c/T_w)$$

$r^2=0.9757$   $F_{\max}=216$   
 $a=3.356 \pm 0.301$   $b=0.3716 \pm 0.0194$   $c=1310.8 \pm 75.5$

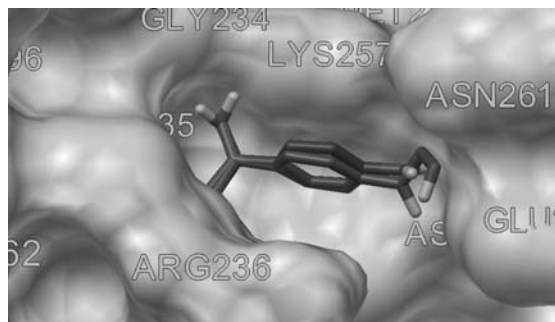


**Key words:** catalytic combustion, ignition, LPG-air.

Rev. Roum. Chim., 2014, 59(9), 727-732

László FERENCZ and  
Daniela Lucia MUNTEAN

Potential inhibitors for bacterial dihydropteroate  
synthase. The results of a comprehensive screening  
based on structural similarity with *p*-amino-benzoic  
acid and docking simulation on the surface of  
enzyme



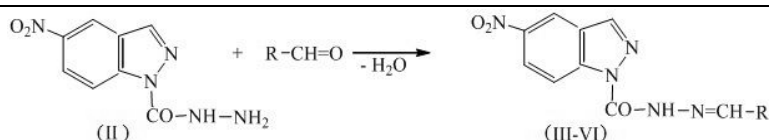
**Key words:** *para*-aminobenzoic acid, substitutes, structural similarity,  
screening, docking.

Rev. Roum. Chim., 2014, 59(9), 733-738

**Toni Andor GICU, Cristina-Delia NECHIFOR, Valeriu SUNEL, Dana-Ortansa DOROHAI and Corina CHEPTEA**

Optimization reaction for obtaining new hydrazidones with biological action

*Rev. Roum. Chim.*, 2014, 59(9), 739-747

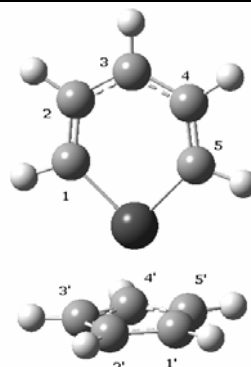


**Key words:** hydrazidones, optimization reaction, antitumor activity, NMR and FTIR spectra.

**Reza GHIASI, Hossein GHIASI and Mahsan AFZALI TABAR**

Computational study of molecular structure,  $^1\text{H}$  NMR, electronic spectra, solvent effect and properties of platinabenzene

*Rev. Roum. Chim.*, 2014, 59(9), 749-760

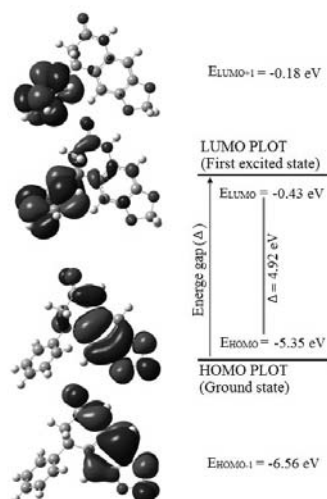


**Key words:** platinabenzene, NBO analysis, solvent effect, density of states (DOS), temperature dependence.

**Masoome SHEIKHI and Davood SHEIKH**

Quantum chemical investigations on phenyl-7,8-dihydro-[1,3]-dioxolo[4,5-G]quinolin-6(5H)-one

*Rev. Roum. Chim.*, 2014, 59(9), 761-767

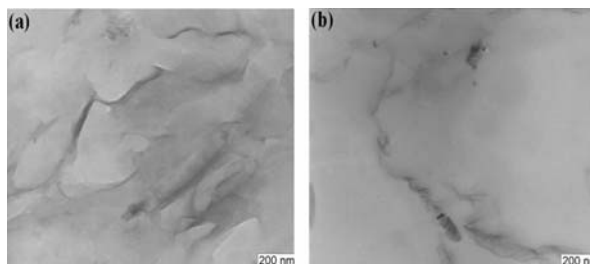


**Key words:** DFT, thermodynamic parameter, NBO analysis, HOMO-LUMO energy gap energy gap.

**Soufiane BOUDJEMAA and Brahim DJELLOULI**

Characterization of organomontmorillonite (organo-MMT) and study of its effects upon the formation of poly(methyl methacrylate)/organo-MMT nanocomposites prepared by *in-situ* solutions polymerisation

*Rev. Roum. Chim.*, 2014, 59(9), 769-779

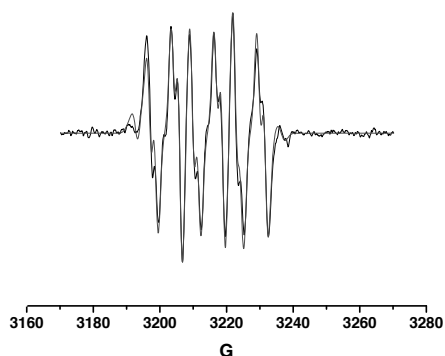


**Key words:** nanocomposite, montmorillonite, poly (methyl methacrylate), *in situ* solution polymerisation, thermal stability, mechanical and rheological properties.

Ana-Maria ARICIU, Gabriela IONITA and  
Petre IONITA

An EPR spin-trapping study of free radicals in  
cigarette smoke

DMPO - spin adduct from cigarette smoke

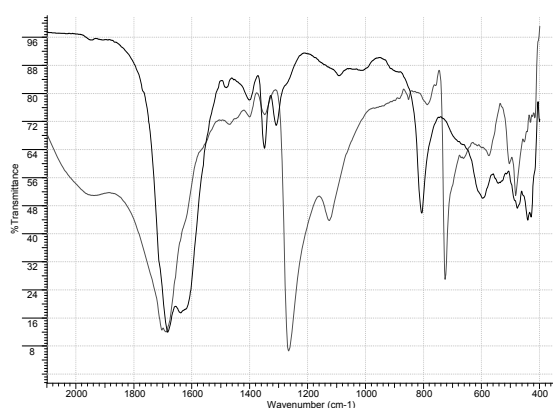


*Rev. Roum. Chim.*, 2014, 59(9), 781-787

**Key words:** cigarette smoke, spin-trapping, DMPO, PBN.

Dan ROȘU, Mihail BÎRZESCU,  
Marius-Silviu MILEA,  
Mihai-Cosmin PASCARIU, Viorel SASCA and  
Mircea NICULESCU

Synthesis-structure relationship in the aqueous  
ethylene glycol-iron(III) nitrate system

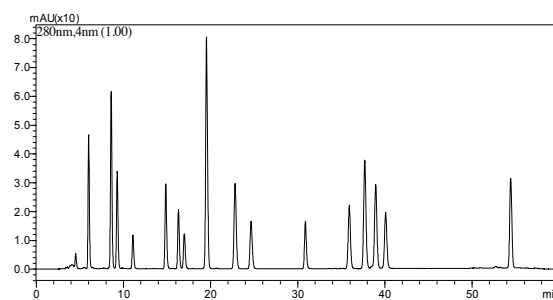


**Key words:** ethylene glycol, homopolynuclear coordination compound,  
iron(III) polyoxalate, electronic spectroscopy, Fourier transform  
infrared spectroscopy.

*Rev. Roum. Chim.*, 2014, 59(9), 789-796

Florentina GATEA, Alina O. MATEI,  
Eugenia Dumitra TEODOR and  
Gabriel L. RADU

Accurate quantitation of 17 polyphenols  
from propolis extracts by reversed-phase liquid  
chromatography with diode array detection



**Key words:** polyphenols, HPLC-DAD, validation, Roumanian propolis  
extracts.

*Rev. Roum. Chim.*, 2014, 59(9), 797-805

