

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

Tome 58, N<sup>os</sup> 4-5

Avril-Mai 2013

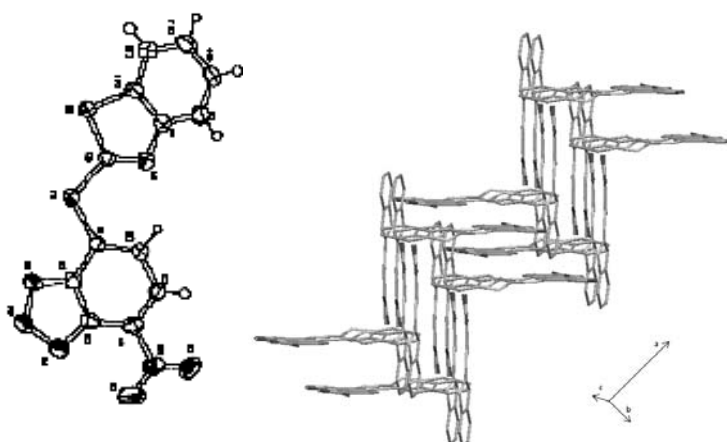
Professor Eugen Segal

Rev. Roum. Chim., 2013, 58(4-5), 297-326

## PAPERS

Ovidiu OPREA, Marioara BEM,  
Miron T. CAPROIU, Constantin DRAGHICI,  
Rodica D. BARATOIU-CARPEN,  
Ana C. RADUTIU, Adrian BETERINGHE,  
Cristian ENACHE, Gabriela IONITA,  
Titus CONSTANTINESCU and  
Alexandru T. BALABAN

Synthesis and properties  
of new 2-benzothiazole and  
2-benzoxazole-nitroaryl-sulfides



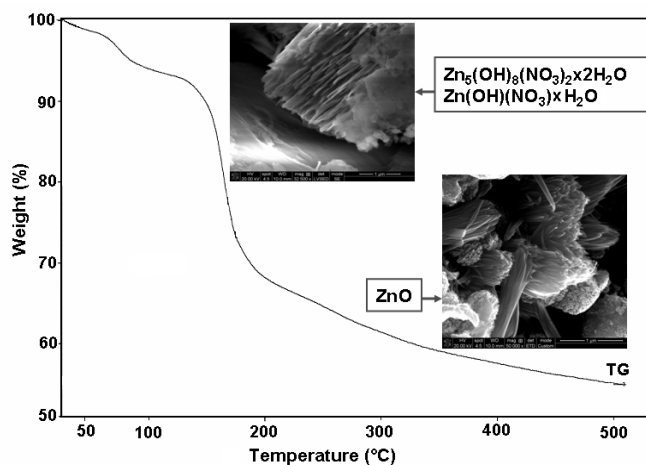
2-(4-Nitro-2,1,3-benzoxadiazole-7-yl)-thiobenzothiazole (brick-red crystals)

**Key words:** mercaptobenzothiazole and mercaptobenzoxazole derivatives, DSC and DTG, electronic absorption spectra, fluorescence, RP-TLC, X-ray-crystallography.

Rev. Roum. Chim., 2013, 58(4-5), 327-334

Susana MIHAIU, János MADARÁSZ,  
György POKOL, Imre Miklós SZILÁGYI,  
Tímea KASZÁS, Oana Cătălina MOCIOIU,  
Irina ATKINSON, Alexandra TOADER,  
Cornel MUNTEANU,  
Virgil Emanuel MARINESCU and  
Maria ZAHARESCU

Thermal behavior of ZnO precursor powders  
obtained from aqueous solutions

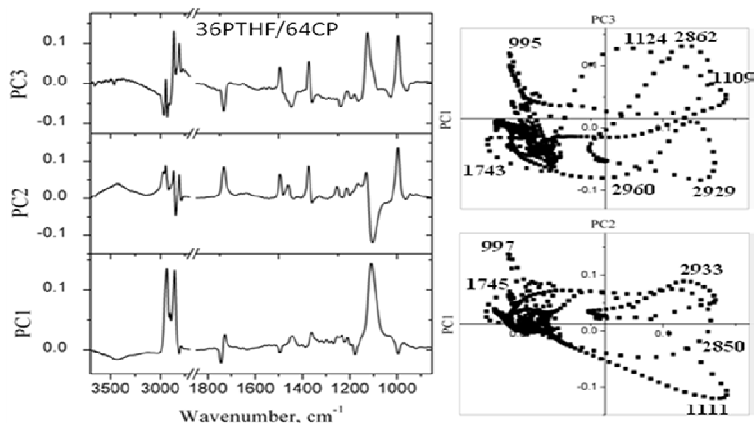


Rev. Roum. Chim., 2013, 58(4-5), 335-345

**Key words:** ZnO formation, wet chemical routes, structure, morphology.

**Maria-Cristina POPESCU and Bogdan C. SIMIONESCU**

Transition temperatures and molecular interactions of polytetrahydrofuran/colesteril palmitate blends by principal component analysis

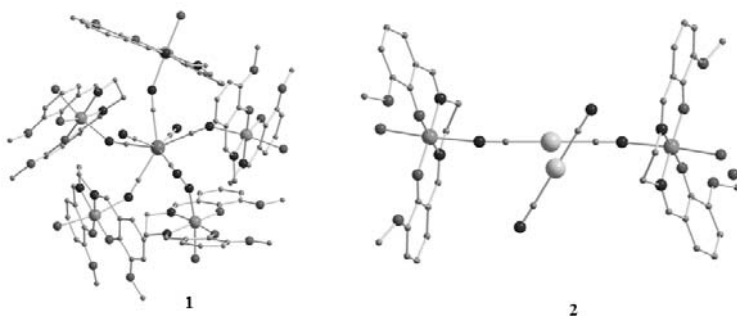


*Rev. Roum. Chim.*, 2013, 58(4-5), 347-353

**Key words:** transition temperature, principal component analysis, polytetrahydrofuran/colesteril palmitate blends.

**Silviu NASTASE, Catalin MAXIM, Carine DUHAYON, Jean-Pascal SUTTER and Marius ANDRUH**

Synthesis and crystal structure of two new cyanido-bridged  $[\text{Mn}^{\text{III}}_5\text{Mo}^{\text{IV}}]$  and  $[\text{Mn}^{\text{III}}_2\text{Au}^{\text{I}}]$  heterometallic complexes

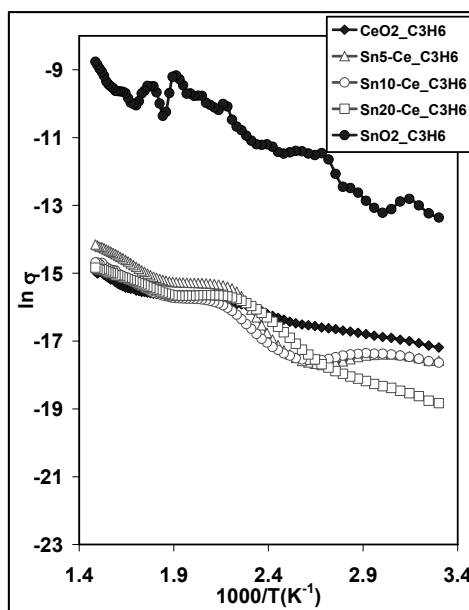


*Rev. Roum. Chim.*, 2013, 58(4-5), 355-363

**Key words:** manganese(III) complexes, Schiff bases, gold(I) complexes, molybdenum(IV) complexes.

**Anca VASILE, Cristian HORNOIU, Veronica BRATAN, Daniela NEGOESCU, Monica CALDARARU, Nicolae I. IONESCU, Tatiana YUZHAKOVA and Ákos RÉDEY**

*In situ* electrical conductivity of propene interaction with  $\text{SnO}_2$ - $\text{CeO}_2$  mixed oxides

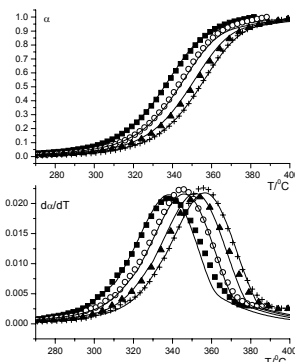


*Rev. Roum. Chim.*, 2013, 58(4-5), 365-369

**Key words:** tin-cerium mixed oxide catalysts, electrical conductivity.

**Petru BUDRUGEAC**

Thermokinetic study of the thermo-oxidative degradation of a composite epoxy resin material

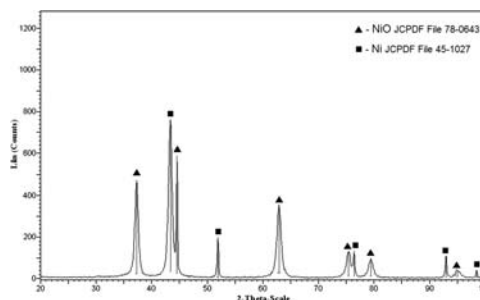


*Rev. Roum. Chim.*, 2013, 58(4-5), 371-379

**Key words:** composite epoxy resin material, thermo-oxidative degradation, non-isothermal kinetics.

**Mircea NICULESCU and Petru BUDRUGEAC**

Structural characterization of nickel oxide obtained by thermal decomposition of polynuclear coordination compound  
 $[\text{Ni}_2(\text{OH})_2(\text{H}_3\text{CCH}(\text{OH})\text{COO}^-)_2(\text{H}_2\text{O})_2 \cdot 0.5\text{H}_2\text{O}]_n$

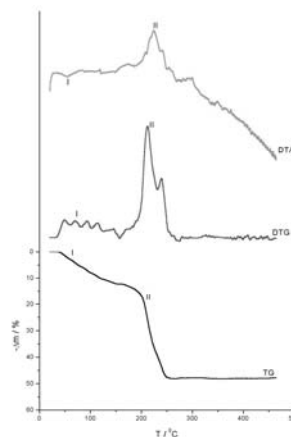


*Rev. Roum. Chim.*, 2013, 58(4-5), 381-386

**Key words:** nickel oxide, crystalline structure, surface morphology.

**Mircea NICULESCU, Petru BUDRUGEAC, Ionuț LEDEȚI, Vasile PODE and Mihail BÎRZESCU**

Synthesis and characterization of the polynuclear coordination compound obtained through the reaction of 1,3-propanediol with  $\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$

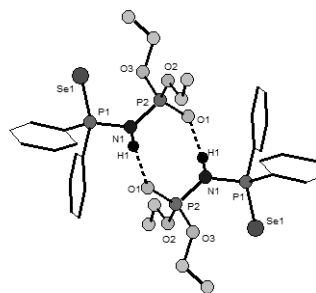


*Rev. Roum. Chim.*, 2013, 58(4-5), 387-392

**Key words:** 1,3-propanediol; nitrate; polynuclear coordination compound; 3-hydroxy-propionate; copper oxide.

**Anett TOȚH, Alina LUPAN, Ciprian I. RAȚ, Cristian SILVESTRU and Anca SILVESTRU**

New group 12 metal complexes with anionic  $[\{\text{OP}(\text{OEt})_2\}(\text{SePPh}_2)\text{N}]^-$  ligands

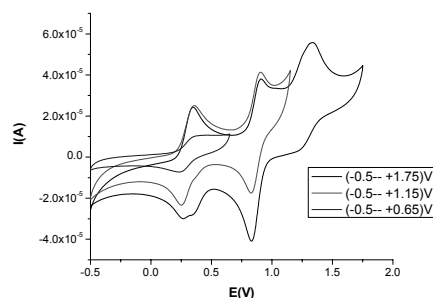


*Rev. Roum. Chim.*, 2013, 58(4-5), 393-398

**Key words:** organophosphorus ligands, group 12 metal complexes, structure elucidation.

**Cassiana Cristina ANDREI, Daniela BALA and Constantin MIHAILCIUC**

Electrochemical study of 2,2-diphenyl-1-(2,4-dinitrophenyl)hydrazine and 2,2-diphenyl-1-(3,5-dinitropyridin-2-yl) hydrazine

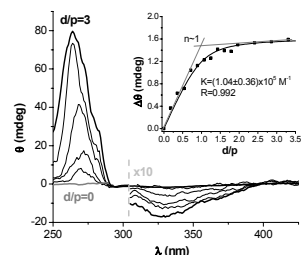


*Rev. Roum. Chim.*, 2013, 58(4-5), 399-408

**Key words:** CV, DPV, hydrazine derivatives.

**Iulia MATEI, Sorana IONESCU and Mihaela HILLEBRAND**

Induced chirality of genistein upon binding to albumin: circular dichroism and TDDFT study

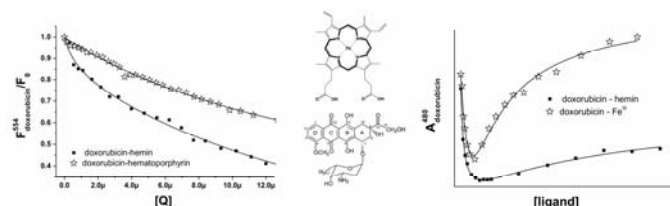


**Key words:** isoflavone, human serum albumin, induced circular dichroism, time-dependent density functional theory.

*Rev. Roum. Chim.*, 2013, 58(4-5), 409-413

**Ana Maria TOADER, Mihaela ŢONE and Elena VOLANSCHI**

Hemin *in vitro* interaction with the anticancer drug doxorubicin: absorption and emission monitoring

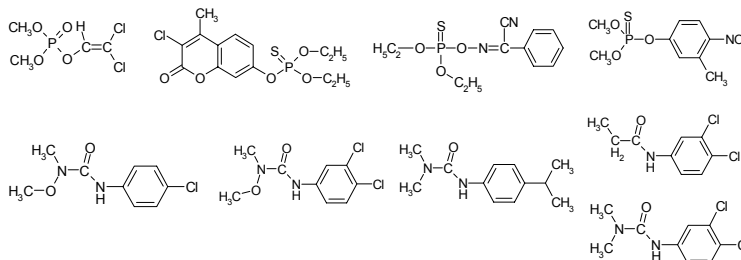


**Key words:** doxorubicin, hemin, fluorescence, absorption spectroscopy.

*Rev. Roum. Chim.*, 2013, 58(4-5), 415-423

**Jana PETRE, Vasile IANCU and Victor DAVID**

Thermodynamic study of the liquid chromatography retention process for some pesticides on C8 and C18 silica-based stationary phases

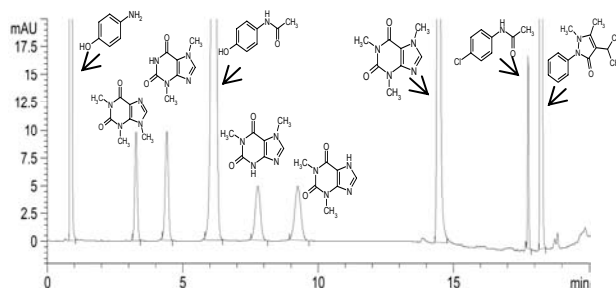


**Key words:** thermodynamics, van't Hoff plots, pesticides, liquid chromatography, silica-based stationary phase.

*Rev. Roum. Chim.*, 2013, 58(4-5), 425-432

**Florin SOPONAR, Dumitru STANILAOE, Georgeta MOISE, Balazs SZANISZLO and Victor DAVID**

Simultaneous determination of paracetamol, propyphenazone and caffeine from pharmaceutical preparations in the presence of related substances using a validated HPLC-DAD method

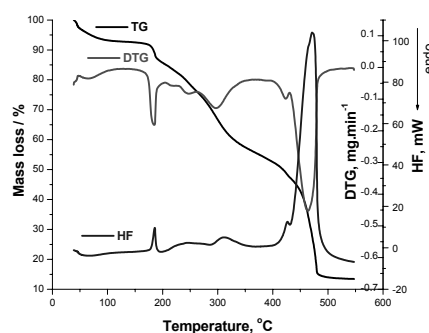


**Key words:** paracetamol, propyphenazone, caffeine, HPLC, pharmaceutical preparations, related impurities.

*Rev. Roum. Chim.*, 2013, 58(4-5), 433-440

**Ionuț LEDEȚI, Adriana FULIAȘ,  
Gabriela VLASE, Titus VLASE and  
Nicolae DOCA**

Novel triazolic copper(II) complex: synthesis,  
thermal behaviour and kinetic study

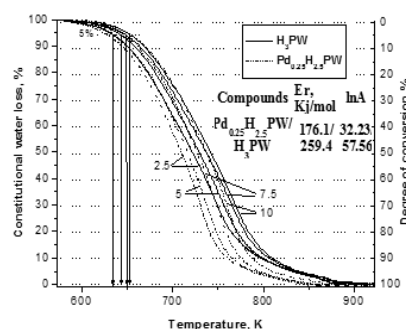


**Key words:** alkylated triazole, copper complex, thermal analysis,  
kinetic study.

*Rev. Roum. Chim.*, 2013, 58(4-5), 441-450

**Viorel SASCA, Orsina VERDEȘ, Livia AVRAM  
and Alexandru POPA**

Thermal decomposition of Pd doped  
12-tungstophosphoric acid and some of its cesium  
salts

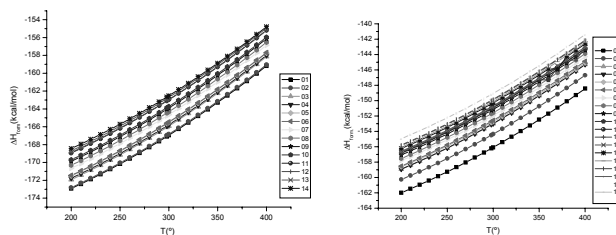


**Key words:** non-isothermal kinetic study, Pd doped 12-tungstophosphoric  
acid, Pd doped cesium tungstophosphates, kinetics  
of constitutional water loss.

*Rev. Roum. Chim.*, 2013, 58(4-5), 451-461

**Daniela IVAN, Simona FUNAR-TIMOFEI,  
Mihai MEDELEANU, Maria MRACEC and  
Mircea MRACEC**

Formation enthalpy for conformers of (3S,5S,6S)-  
6-acetylamidopenicillanic acid calculated by the  
PM6 and PM7 semiempirical MO methods



**Key words:** (3S,5S,6S)-6-acetylamidopenicillanic acid, formation enthalpies,  
PM6, PM7, MOPAC12.

*Rev. Roum. Chim.*, 2013, 58(4-5), 463-472

