

# REVUE ROUMAINE DE CHIMIE (ROMANIAN JOURNAL OF CHEMISTRY)

Tome 52, N<sup>os</sup> 1-2

Janvier-Février 2007

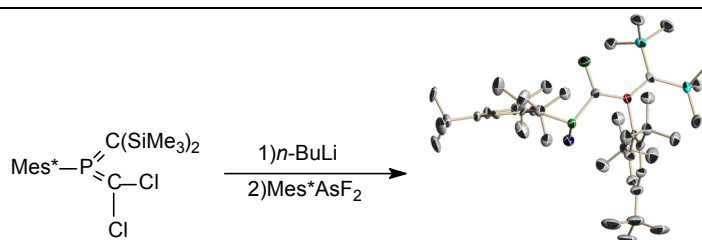
Professor Ionel Haiduc

Rev. Roum. Chim., 2007, 52(1-2), 7–44

## PAPERS

Petronela Maria PETRAR, Gabriela NEMES,  
Luminita SILAGHI-DUMITRESCU,  
Ioan SILAGHI-DUMITRESCU,  
Jean ESCUDIÉ, Heinz GORNITZKA  
and Henri RANAIVONJATOVO

Synthesis and characterization of the first  
arsanylbis(methylene)phosphorane  
(Me<sub>3</sub>Si)<sub>2</sub>C=P(Mes\*)=C(Cl)-As(F)Mes\*

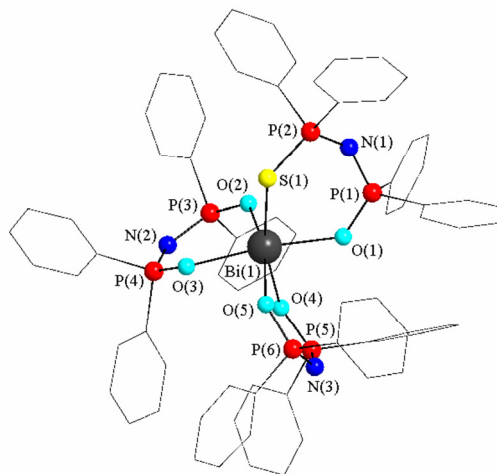


**Key words:** arsanylbis(methylene)phosphorane, heterocumulenes,  
heteroallenes.

Rev. Roum. Chim., 2007, 52(1-2), 45–49

Mihai NEMA, Mihaela JÖNSSON,  
Richard A. VARGA, Anca SILVESTRU  
and Cristian SILVESTRU

Bismuth(III) complexes of  
tetraorganodichalcogenoimidodiphosphinic acids.  
Crystal and molecular structure of  
Bi[(SPMe<sub>2</sub>)(SPPh<sub>2</sub>)N]<sub>3</sub> and  
Bi[(OPPh<sub>2</sub>)<sub>2</sub>N<sub>2</sub>][(OPPh<sub>2</sub>)(SPPh<sub>2</sub>)N]

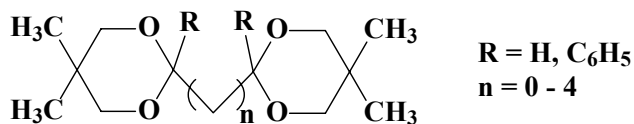


**Key words:** arsanylbis(methylene)phosphorane, heterocumulenes,  
heteroallenes.

Rev. Roum. Chim., 2007, 52(1-2), 51–58

Anamaria TERC, Elena BOGDAN,  
Luminița DAVID, Sorin MAGER  
and Ion GROȘU

Synthesis and stereochemistry of some new  
bis(1,3-dioxane-2-yl)alkanes

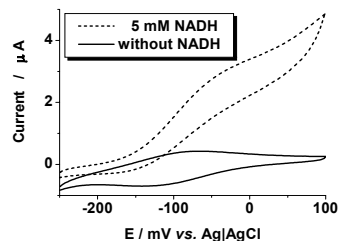


Rev. Roum. Chim., 2007, 52(1-2), 59–65

**Key words:** conformational analysis, NMR, 1,3-dioxanes, X-ray structure.

**Carmen Ioana LADIU, José R. GARCÍA,  
Ionel Catalin POPESCU and Lo GORTON**

NADH electrocatalytic oxidation at glassy carbon paste electrodes modified with Meldola Blue adsorbed on acidic  $\alpha$ -zirconium phosphate

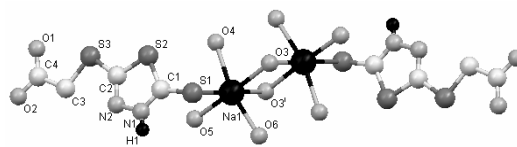


**Key words:** NADH oxidation, modified glassy carbon paste electrodes, electrocatalysis,  $\alpha$ -titanium phosphate, redox dyes.

*Rev. Roum. Chim.*, **2007**, 52(1-2), 67–74

**Monica VENTER, Vasile N. BERCEAN,  
Maria ILICI and Simona CÎNTĂ PÎNZARU**

New metal complexes of monoanionic (5-mercapto-1,3,4-thiadiazol-2-yl)thioacetic acid. X-ray structure of  $[\text{Na}(\text{C}_2\text{N}_2\text{HS}_3\text{CH}_2\text{COO})\text{H}_2\text{O}]_2 \cdot 2\text{H}_2\text{O}$

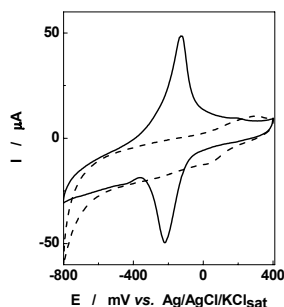


*Rev. Roum. Chim.*, **2007**, 52(1-2), 75–79

**Key words:** thiadiazole, sodium salt, X-ray structure, FT-IR, Raman

**Codruța VARODI, Delia GLIGOR  
and Liana M. MUREȘAN**

Carbon paste electrodes modified with Methylene Blue immobilized on a synthetic zeolite



**Key words:** Methylene Blue, zeolites, carbon paste electrodes, hydrogen peroxide.

*Rev. Roum. Chim.*, **2007**, 52(1-2), 81–88

**Valentina CHIOSA and Victor Em. SAHINI**

Optical rotatory dispersion of some human serum albumin conformers

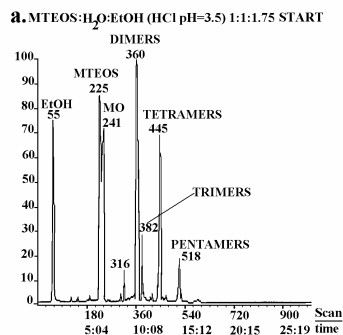
$$[\alpha] = \frac{a_0 \lambda_0^2}{\lambda^2 - \lambda_0^2}$$

*Rev. Roum. Chim.*, **2007**, 52(1-2), 89–91

**Key words:** human serum albumin, optical rotatory dispersion, alfa-helix content.

**Andrei JITIANU, Alina BRITCHI,  
Virgil BADESCU, Călin DELEANU  
and Maria ZAHARESCU**

Influence of the alkoxy group of the Si-alkoxides on the sol-gel process and on the structure of the obtained gels

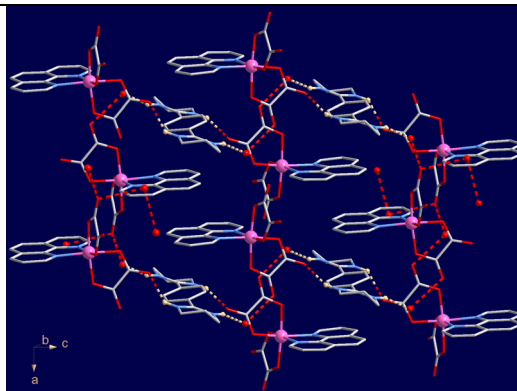


*Rev. Roum. Chim.*, **2007**, 52(1-2), 93–99

**Key words:** sol-gel, hybrid materials, GS-MS,  $^{29}\text{Si}$ -NMR, IR spectroscopy, SEM microscopy.

**Carmen PARASCHIV, Sylvie FERLAY,  
Mir Wais HOSSEINI,  
Nathalie KYRISTSAKAS, Jean-Marc  
PLANEX and Marius ANDRUH**

Hybrid organic/inorganic H-banded  
supramolecular networks including  $[\text{Cr}(\text{ox})_2\text{L}]^-$ .  
(L=1,10-phenanthroline and 2,2-  
bipyridine)tectons

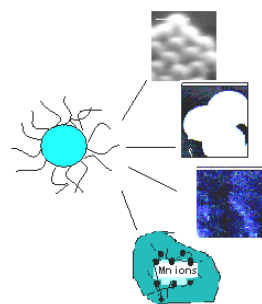


**Key words:** chromium complexes, hydrogen bond interaction, oxalate complexes, supramolecular chemistry.

*Rev. Roum. Chim.*, **2007**, 52(1-2), 101–104

**Geta DAVID, Bogdan C. SIMIONESCU  
and Cristofor I. SIMIONESCU**

Functional micro- and nanoparticle – a possible  
tool for nanostructured materials

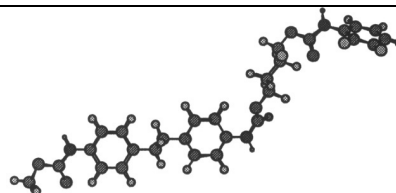


**Key words:** micro- and nanoparticles, functional polymers, macromonomers, poly[(N-acylimino)ethylene], polymer supported catalysts, nanostructured materials.

*Rev. Roum. Chim.*, **2007**, 52(1-2), 105–112

**Cristina PRISACARIU  
and Elena SCORTANU**

Study of the compression properties of  
polyurethanes based on dibenzyl monomers and  
1,4-butanediol as compared to other diol chain  
extenders

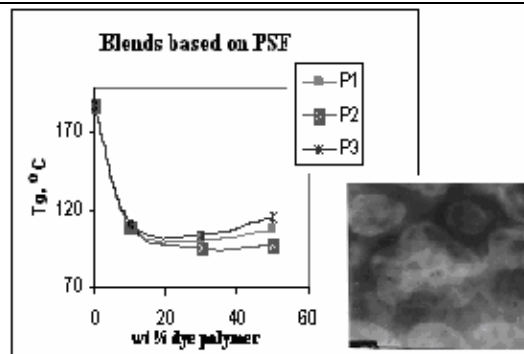


**Key words:** 4,4'-dibenzyl diisocyanate, polyurethanes, compression, residual elongation, Young modulus.

*Rev. Roum. Chim.*, **2007**, 52(1-2), 113–116

**Carmen RACLES, Anton AIRINEI,  
Aurelia IOANID, Cristian GRIGORAS  
and Maria CAZACU**

Siloxane-azoaromatic polyesters as potential  
complex dye systems

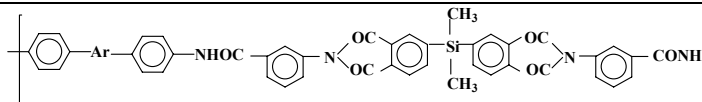


*Rev. Roum. Chim.*, **2007**, 52(1-2), 117–125

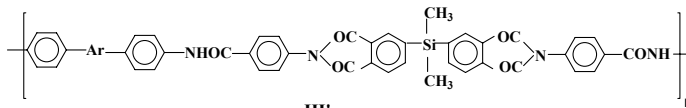
**Key words:** azo-polymers, siloxane, polymer blends.

Ion SAVA and Elena HAMCIUC

Silicon-containing aromatic poly(amide-imide)s



III



III'

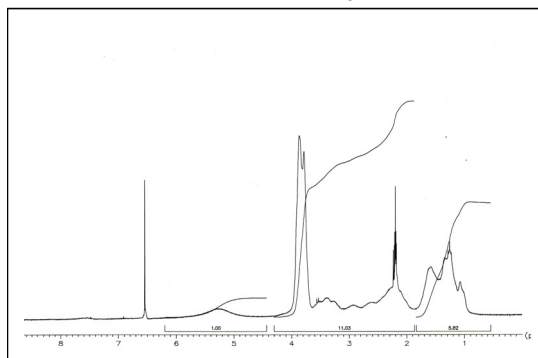
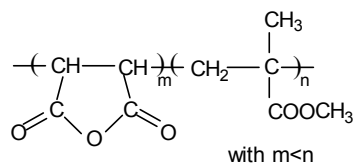
**Key words:** silicon, polyamide-imides, solubility, thin film, conformational parameters.

*Rev. Roum. Chim.*, 2007, 52(1-2), 127–133

Gabrielle Charlotte CHIȚANU,  
Irina POPESCU and Adrian CARPOV

Synthesis and characterization of maleic anhydride copolymers and their derivatives. 3

Synthesis and characterization of maleic anhydride-methyl methacrylate copolymers

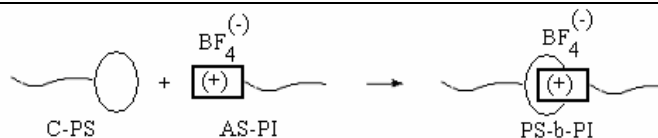


**Key words:** maleic anhydride copolymers; maleic anhydride-methyl methacrylate copolymer; copolymer characterization.

*Rev. Roum. Chim.*, 2007, 52(1-2), 135–141

Aurica FARCAȘ, Mariana PINTEALA  
and Valeria HARABAGIU

Self-assembly of functional polymers.  
A viscometric study

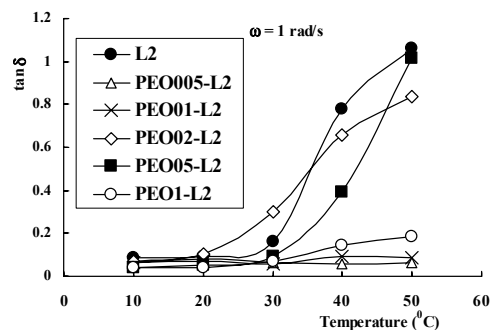


**Key words:** reversible self-assembly, functional polymers, crown ether-ammonium salt interaction.

*Rev. Roum. Chim.*, 2007, 52(1-2), 143–146

Simona MORARIU and Maria BERCEA

Influence of poly(ethylene oxide) on the aggregation and gelation of laponite dispersions in water

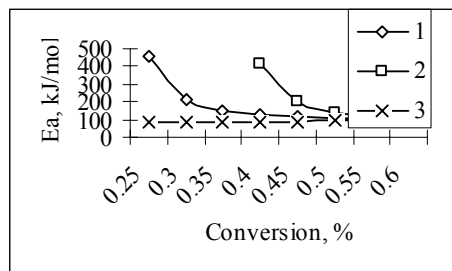


*Rev. Roum. Chim.*, 2007, 52(1-2), 147–152

**Key words:** Laponite RD, poly(ethylene oxide), gel, viscoelastic properties.

**Ruxanda BODÎRLĂU, Carmen-Alice TEACĂ  
and Iuliana SPIRIDON**

Thermal investigation upon various composite  
materials

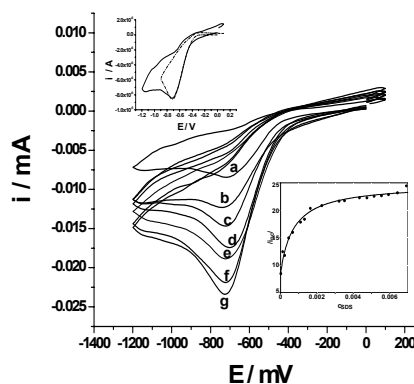


**Key words:** wood-plastic composite, FT-IR spectra, thermal analysis,  
weight loss.

*Rev. Roum. Chim.*, 2007, 52(1-2), 153–158

**Ana Maria TOADER and Elena VOLANSCHI**

Electrochemical and spectral study of the hemin-  
surfactant interaction in solution

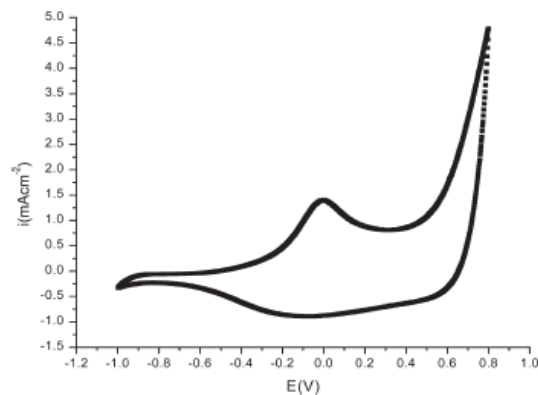


**Key words:** Hemin, anionic surfactants, cyclic voltammetry, UV-VIS  
absorption spectroscopy.

*Rev. Roum. Chim.*, 2007, 52(1-2), 159–167

**Viorel BRĂNZOI, Florina BRĂNZOI  
and Luisa PILAN**

Electrochemical characterization of polypyrrole  
modified electrodes doped with large organic  
anions

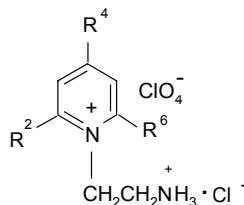


**Key words:** polypyrrole film, platinum electrode cyclic voltammetry,  
electrochemical impedance spectroscopy.

*Rev. Roum. Chim.*, 2007, 52(1-2), 169–179

**Mariana Viorica BOGĂȚIAN,  
Andreea Cristina CORBU, Călin DELEANU,  
Maria MAGANU and Gheorghe BOGĂȚIAN**

Pyridinium salts with long alkyl substituents having  
a terminal free amino group. Corrosion inhibitors  
derived from corresponding pyridinium salts



**1a** R<sup>2</sup> = CH<sub>3</sub>; R<sup>4</sup> = CH<sub>3</sub>; R<sup>6</sup> = C<sub>11</sub>H<sub>23</sub>

**1b** R<sup>2</sup> = C<sub>11</sub>H<sub>23</sub>; R<sup>4</sup> = CH<sub>3</sub>; R<sup>6</sup> = C<sub>11</sub>H<sub>23</sub>

**1c** R<sup>2</sup> = C<sub>15</sub>H<sub>31</sub>; R<sup>4</sup> = CH<sub>3</sub>; R<sup>6</sup> = C<sub>15</sub>H<sub>31</sub>

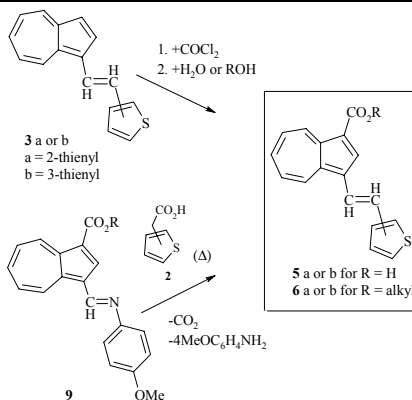
**1d** R<sup>2</sup> = C<sub>17</sub>H<sub>35</sub>; R<sup>4</sup> = CH<sub>3</sub>; R<sup>6</sup> = C<sub>17</sub>H<sub>35</sub>

*Rev. Roum. Chim.*, 2007, 52(1-2), 181–187

**Key words:** pyridinium salts, corrosion inhibitors for steel in acidic water.

**Alexandru C. RAZUS, Liviu BIRZAN,  
Victorita TECUCEANU, Mihaela CRISTEA,  
Alina NICOLESCU and Cristian ENACHE**

Azulene derivatives soluble in polar solvents. 1-(azulen-1-yl)-2-(thien-2- or 3-yl)-ethenes

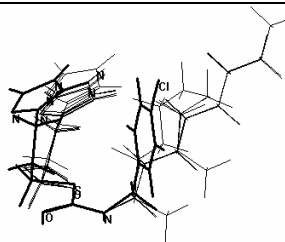


*Rev. Roum. Chim.*, **2007**, 52(1-2), 189–194

**Key words:** azulene, thiophene, ethenes, carboxylic acids.

**Maria MRACEC, Ramona RAD,  
Liliana OSTOPOVICI, Ana BOROTA  
and Mircea MRACEC**

Conformational analysis with semiempirical methods for a quinoxaline urea derivative, active on benzodiazepine receptor

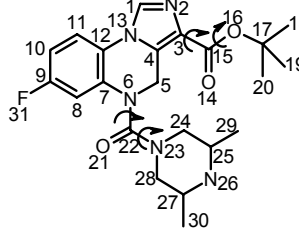


*Rev. Roum. Chim.*, **2007**, 52(1-2), 195–200

**Key words:** GABA benzodiazepine receptor, conformational analysis, quinoxaline, AMBER94, AM1.

**Maria MRACEC, Ana BOROTA,  
Ramona RAD, Liliana OSTOPOVICI  
and Mircea MRACEC**

Conformational analysis for a series of imidazole ligands acting as antagonists on the histamine H3 receptor

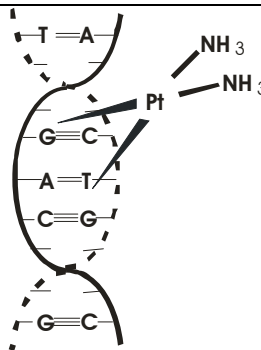


*Rev. Roum. Chim.*, **2007**, 52(1-2), 201–206

**Key words:** flexible ligand, conformational analysis, H3 receptor antagonist, AM1, MM+.

**Zeno GARBAN, Gabriela GARBAN,  
Ariana-Bianca VELCIOV  
and George-Daniel GHIBU**

Interaction of deoxyribonucleic acid with *cis*-platinum: structure-activity relationship



*Rev. Roum. Chim.*, **2007**, 52(1-2), 207–213

**Key words:** *cis*-platinum – DNA interaction, effects