

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

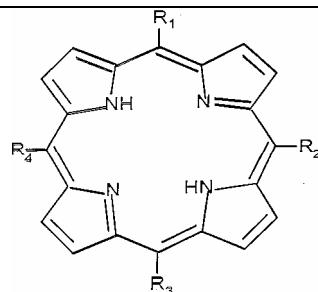
Tome 52, N° 12

Décembre 2007

## REVIEW

Rodica-Mariana ION

Photodynamic therapy (PDT): a photochemical concept with medical applications



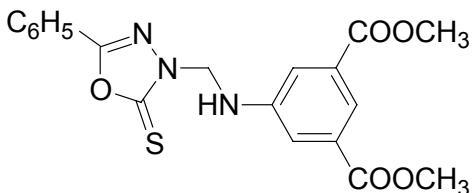
Rev. Roum. Chim., 2007, 52(12), 1093-1102

**Key words:** porphyrins, photodynamic therapy, singlet oxygen, porphyrins photodegradation, clinical applications.

## PAPERS

Gheorghe ROMAN, Costel AGACHE,  
Ileana MANCIULEA, Eugenia COMANIȚĂ  
and Lucia DUMITRESCU

Synthesis of new Mannich bases derived from 5-phenyl-1,3,4-oxadiazole-2-thione and investigation of the conformational isomers of dimethyl 5-(5-phenyl-2-thioxo-1,3,4-oxadiazole-3-methylamino)isophthalate

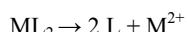


Rev. Roum. Chim., 2007, 52(12), 1103-1110

**Key words:** oxadiazolethione, aminomethylation, Mannish base, computational chemistry, conformational isomers.

Simona MUNTEAN, Ludovic KURUNCZI,  
Valentin CAREJA and Zeno SIMON

Dissociation energies in water solution for saline bonds implied in interactions mediated by peptidoglycans. AB initio – PCM computations

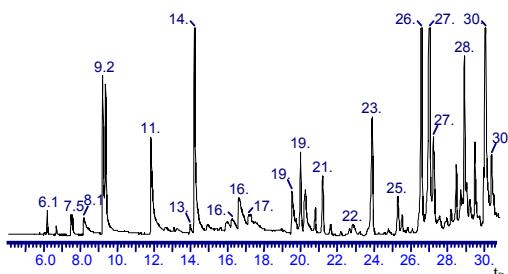


Rev. Roum. Chim., 2007, 52(12), 1111-1114

**Key words:** peptidoglycans, intercellular interaction, saline bond, hydration energy, dissociation energy.

Valeria RĂDULESCU, Mariana PAVEL and  
Eliza OPREA

Capillary GC-MS analysis of volatile and semi-volatile compounds of *Thymus glabrescens* willd.

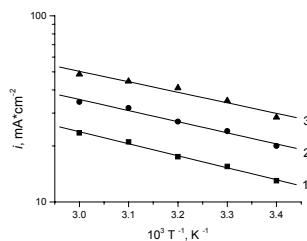


Rev. Roum. Chim., 2007, 52(12), 1115-1122

**Key words:** *Thymus glabrescens*, essential oil, infusion, solid phase extraction, GD/MS.

**Gabriela Elena BADEA, Ioana MAIOR,  
Anca COJOCARU and Ion CORBU**

The cathodic evolution of hydrogen on nickel in artificial seawater

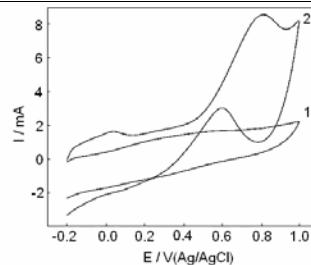


*Rev. Roum. Chim.*, 2007, 52(12), 1123-1130

**Key words:** hydrogen evolution, nickel, seawater.

**Tanță SPĂTARU, Maria MARCU and  
Nicolae SPĂTARU**

Composite electrode material with catalytic activity obtained by electrochemical deposition of polypyrrole and platinum on titanium substrates

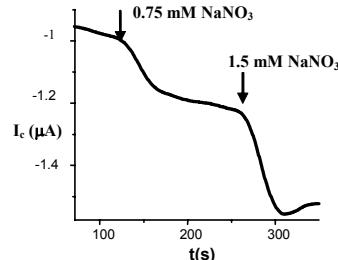


*Rev. Roum. Chim.*, 2007, 52(12), 1131-1136

**Key words:** composite materials, polypyrrole deposition.

**Stelian LUPU and Anton FICAI**

Layer by layer deposition of redox polymers/enzyme assemblies onto electrodes surfaces for nitrate electrochemical sensing

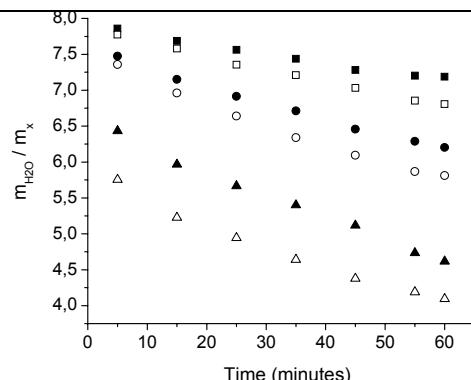


*Rev. Roum. Chim.*, 2007, 52(12), 1137-1143

**Key words:** amperometric biosensors, layer-by-layer deposition, nitrate reductase, redox polymers.

**Silvia PAȚACHIÀ and  
Claudia BACIU FLOREA**

Poly(vinyl alcohol) hydrogels interactions with electrolytes in aqueous solution

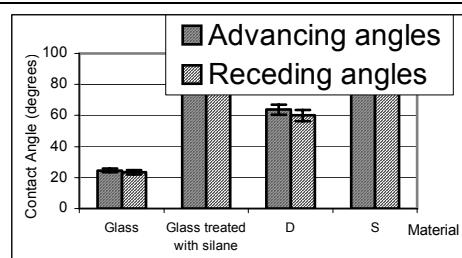


*Rev. Roum. Chim.*, 2007, 52(12), 1145-1149

**Key words:** poly(vinyl alcohol), cryogels, electrolytes, swelling, shrinking.

**Daniela-Cristina MOMETE, Enrica VERNE,  
Chiara VITALE BROVARONE,  
Giulio MALUCELLI and  
Dan-Sorin VASILESCU**

Polymeric composites for dentistry. II. Physical investigations on new dental composites

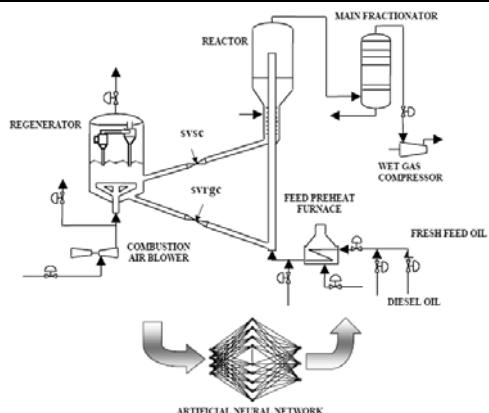


*Rev. Roum. Chim.*, 2007, 52(12), 1151-1155

**Key words:** dental composites, glass, silanization, mechanical properties.

**Vasile Mircea CRISTEA, Letiția TOMA and  
Paul Șerban AGACHI**

Simulation and model predictive control of the fluid catalytic cracking unit using artificial neural networks



*Rev. Roum. Chim.*, 2007, 52(12), 1157-1166

**Key words:** artificial neural networks, model predictive control, FCCU.

Index of authors

*Rev. Roum. Chim.*, 2007, 52(12), 1167-1177

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*Rev. Roum. Chim.*, 2007, 52(12), 1179-1183

Costin D. Nenițescu Medal

*Rev. Roum. Chim.*, 2007, 52(12), 1185-1186

