

REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

Tome 51, N° 4

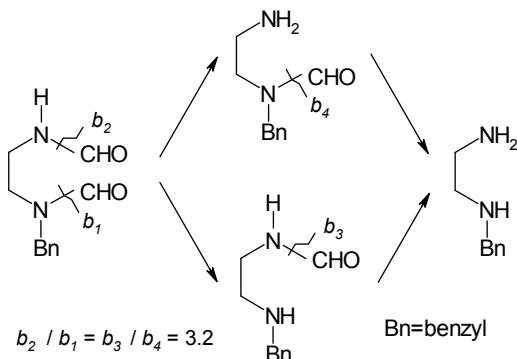
Avril 2006

Professor Alexandru T. Balaban's 75th anniversary
Rev. Roum. Chim., 2006, 51(4), 237-244

PAPERS

Horia PETRIDE, Oana COSTAN, Cristina FLOREA and Silvia UDREA

Competitive amide hydrolysis in mono- and diformylated ethylenediamines

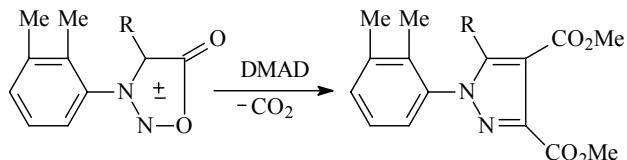


Rev. Roum. Chim., 2006, 51(4), 245-253

Key words: amides, hydrolysis.

Floreia DUMITRAȘCU, Constantin DRĂGHICI, Daniela VULUGA and Miron Teodor CĂPROIU

New pyrazoles by 1,3-dipolar cycloaddition reactions between sydnone and activated alkynes

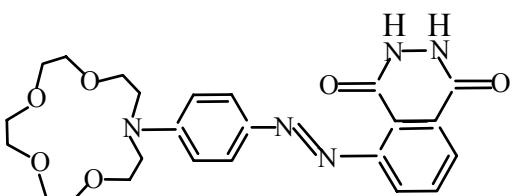


Rev. Roum. Chim., 2006, 51(4), 255-260

Key words: sydnone, pyrazoles, 1,3-dipolar cycloaddition, regioselectivity, NMR spectroscopy.

Rodica Daniela BĂRĂTOIU, Anca Elena BARBU, Lucia MUTIHAC, Miron Teodor CĂPROIU, Constantin DRĂGHICI, Radu SOCOTEANU and Titus CONSTANTINESCU

4-(3-(phtalhydrazide)azo)N-phenylaza-15-crown-5. Synthesis and properties

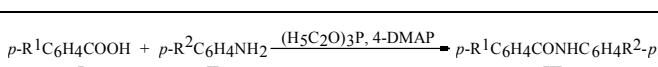


Rev. Roum. Chim., 2006, 51(4), 261-267

Key words: luminol, N-phenylaza-15-crown-5, luminol derivative, ¹H- and ¹³C-NMR spectra at different temperatures, VIS spectra, pKa.

Constantin I. CHIRIAC, Fulga TANASĂ and Marioara ONCIU

A new direct synthesis of aromatic amides in the presence of triethyl phosphite and 4-dimethylaminopyridine



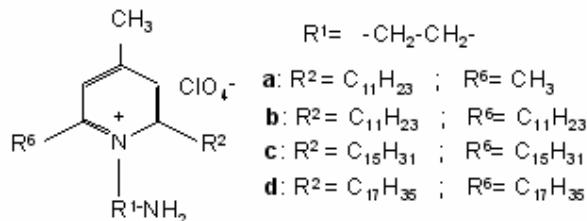
III	a	b	c	d	e	f	g	h
R ¹	CH ₃	CH ₃	CH ₃	H	H	H	Cl	Cl
R ²	CH ₃	H	NO ₂	Cl	CH ₃	H	CH ₃	Cl

Rev. Roum. Chim., 2006, 51(4), 269-272

Key words: direct condensation; new activating system; TEP-4-DMAP; aromatic amides.

Mariana Viorica BOGĂTIAN, Demetra SIMION (NUTĂ), Andreea Cristina CORBU, Călin DELEANU, Filip CHIRALEU, Maria MAGANU and Gheorghe BOGĂTIAN

Synthesis membranes derived from pyridinium salts with long alkyl substituents having a terminal free amino group

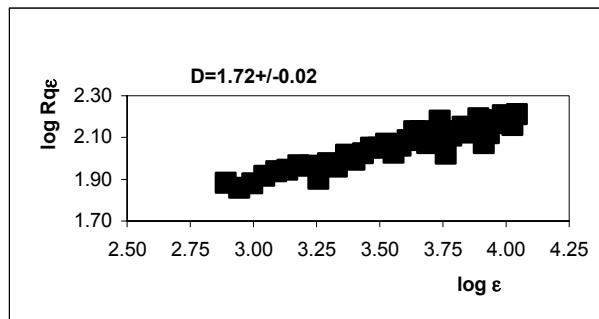


Rev. Roum. Chim., 2006, 51(4), 273-281

Key words: pyridinium salts, artificial membranes, CMC, DLS.

Gianina DOBRESCU, Niculae I. IONESCU and Monica CĂLDĂRARU

The fractal dimension of oscillations in SnO_2 /humid O_2 system



Rev. Roum. Chim., 2006, 51(4), 283-286

Key words: fractal dimension, oscillations, SnO_2 .

Maria MRACEC, Laura JUCHEL and Mircea MRACEC

QSAR analysis of a series of imidazole derivatives acting on the H_3 receptor

A classical QSAR analysis was performed on a series of 29 imidazolic derivatives acting as histamine antagonists on the H_3 receptor. One of the best models, containing as descriptors hydration energy (E_{Hy}), rheologic mass (Mr) and minimum topological difference (MTD) was:

$$pK_i = 8.4156 (0.5960) + 0.2726 (0.0417) E_{Hy} + 0.0076 (0.0007) Mr - 0.2752 (0.0459) MTD$$

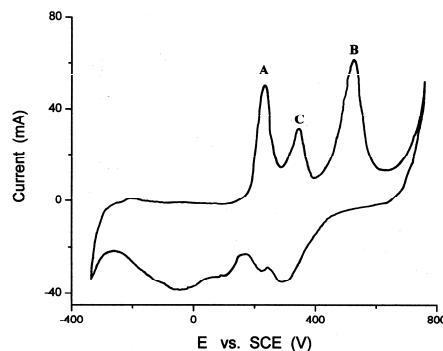
$$n = 29 \quad r^2 = 0.880 \quad r^2_{adj} = 0.865 \quad s = 0.181 \quad F = 60.89 \quad r^2_{CV} = 0.667 \quad \text{press} = 2.28$$

Rev. Roum. Chim., 2006, 51(4), 287-292

Key words: QSAR, MLR, MTD, histamine H_3 receptor, imidazolic derivatives.

Niculae ENE and Maria Ileana IONITA

Electrochemical behaviour of dimethyl ether in alkaline solutions at 298 K

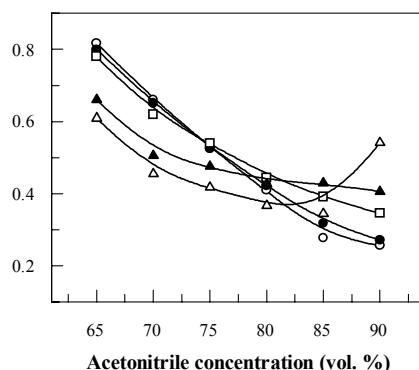


Rev. Roum. Chim., 2006, 51(4), 293-297

Key words: dimethyl ether, fuel cell, electrochemistry, voltammetry, electrochemical kinetics.

Marieta BALCAN, Dan F. ANGHEL, Dan DONESCU and Anca-Nicoleta GĂLĂȚANU

Effect of the mobile phase composition on the retention behavior of polydisperse ethoxylated nonylphenols in reversed-phase high performance liquid chromatography

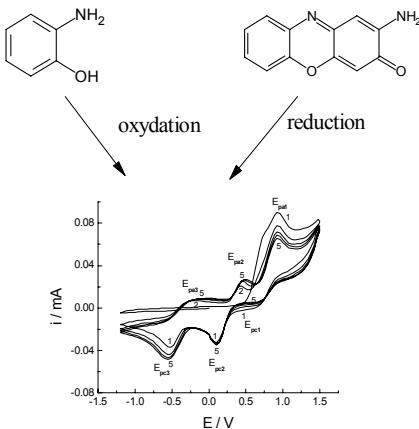


Rev. Roum. Chim., 2006, 51(4), 299-306

Key words: nonionic surfactants, poly(ethylene oxide), RP-HPLC, retention behavior, mobile phase composition.

Ana Maria TOADER, Daniela BULCU and Elena VOLANSCHI

Spectroelectrochemical study of the redox behaviour of quetiapine drugs in aprotic media



Rev. Roum. Chim., 2006, 51(4), 307-315

Key words: 2-aminophenoxazin-3-one, 2-aminophenol, cyclic voltammetry, spectroelectrochemistry, MO calculations.

Victor DAVID and Constantin MIHAILECIUC

Characterization of multi-signals analytical outcome by means of the information entropy and energy

$$\text{Information entropy (Shannon): } H = -\sum_{i=1}^n p(X_i) \cdot \log_2 p(X_i).$$

$$\text{Information energy (Onicescu): } E = \sum_{i=1}^n p(X_i)^2.$$

$$\text{Information temperature (Lepadatu): } T_{inf} = E/H.$$

Rev. Roum. Chim., 2006, 51(4), 317-322

Key words: information, entropy, energy, probability, analytical outcome.

Iulia CONTINEANU, Stefan PERIŞANU and Ana NEACŞU

Enthalpies of combustion and formation of isomers of the amino-benzoic acid

The resonance energies were calculated with following relations:

$$E_{resonance} = \Delta H^{at}(\exp) - \Delta H^{at}(\text{calc})$$

$$E_{resonance} = 7511.2 - [\Delta_f H^0(s) + \Delta H^0_{\text{sublimation}}] - \sum D_i(A - B)$$

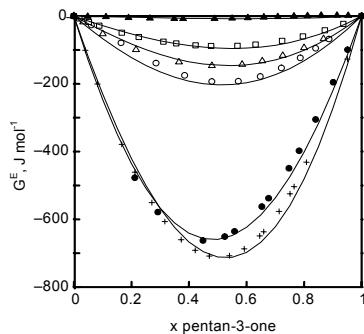
The obtained values for the isomers grows in this order: *meta*, *para*, *ortho*.

Rev. Roum. Chim., 2006, 51(4), 323-327

Key words: amino acids, heats of combustion, enthalpy of formation, resonance energies.

**Alexandru BÂRHALĂ, Mariana
TEODORESCU and Dana DRĂGOESCU**

Structural effects and intermolecular interactions in homologous series of organic systems evidenced by thermodynamic properties in the frame of DISQUAC model



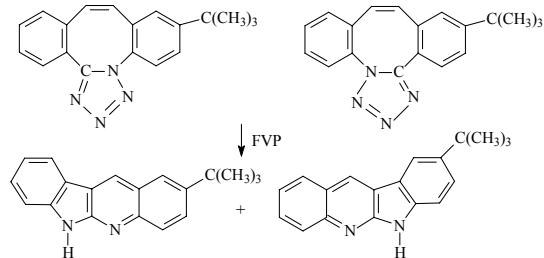
Rev. Roum. Chim., **2006**, 51(4), 329-344

Key words: DISQUAC model, cycloalkanes, n-alkylbenzenes, linear ketones, chloroalkanes.

NOTE

Angela POPESCU, Alberth LARI, Anca BANCIU, Constantin DRĂGHICI, Diana CIUCULESCU, Daniela ISTRATI and Mircea D. BANCIU

Flow-vacuum pyrolysis of polycyclic compounds. 23. Pyrolysis of *t*-butyl-tetrazolo[1,5-*a*]dibenzo[*c,g*]azocines as synthesis method of substituted 5H- and 6H-indolo[2,3-*b*]quinolines



Rev. Roum. Chim., **2006**, 51(4), 345-350

Key words: flow-vacuum pyrolysis, azocines, indolo[2,3-*b*]quinolines.
