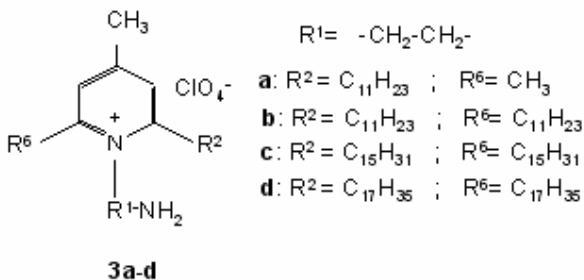


Mariana Viorica BOGĂȚIAN, Demetra SIMION (NUȚĂ), Andreea Cristina CORBU, Călin DELEANU, Filip CHIRALEU, Maria MAGANU and Gheorghe BOGĂȚIAN

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

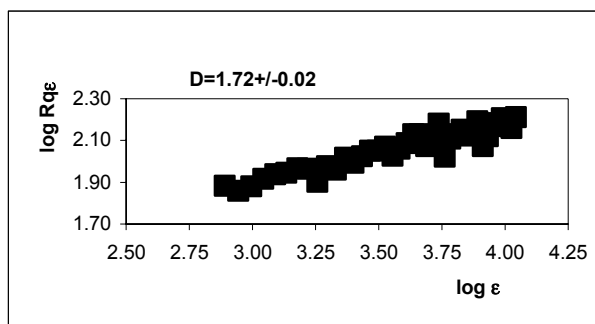


Rev. Roum. Chim., 2006, 51(4), 273-281

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

Gianina DOBRESCU, Nicolae 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:

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

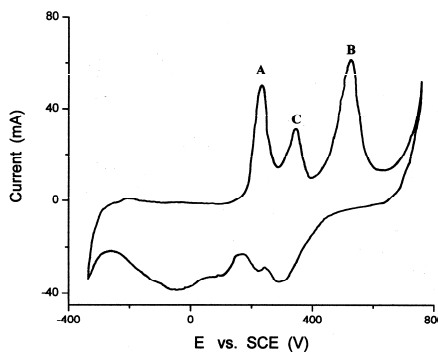
$$n = 29 \quad r^2 = 0.880 \quad r^2_{adj} = 0.865 \quad s = 0.181 \quad F = 60.89 \quad r^2_{CV} = 0.667 \quad press = 2.28$$

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

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

Nicolae ENE and Maria Ileana IONITA

Electrochemical behaviour of dimethyl ether in alkaline solutions at 298 K

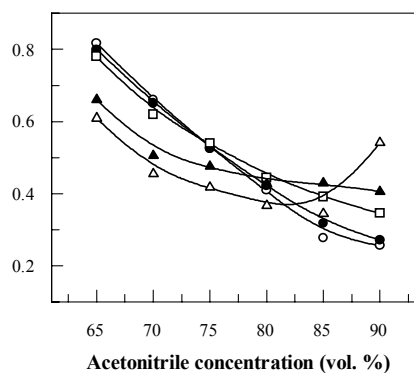


Rev. Roum. Chim., 2006, 51(4), 293-297

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

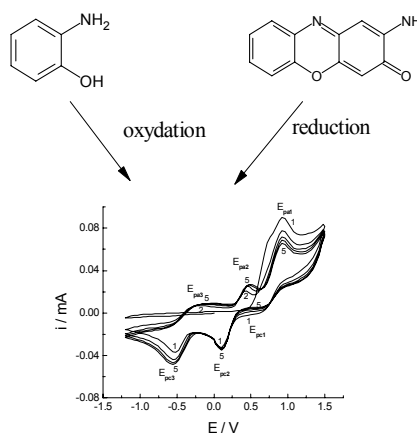


Rev. Roum. Chim., 2006, 51(4), 299-306

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 questiomycin 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 MIHAILCIUC

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

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

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

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, Ștefan PERIȘANU and Ana NEACȘU

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

The resonance energies were calculated with following relations:

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

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

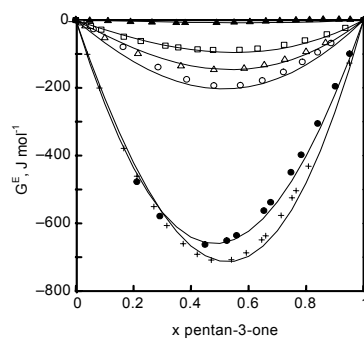
The obtained values for the isomers grows in this order: *meta*, *para*, *ortho*.

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

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

Alexandru BĂRHALĂ, 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



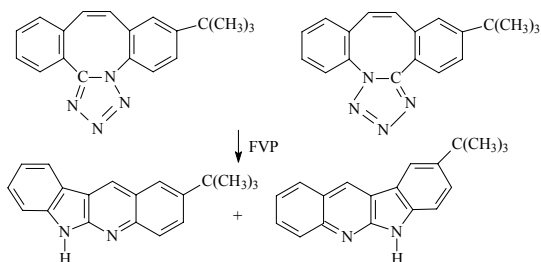
Rev. Roum. Chim., 2006, 51(4), 329-344

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.