

REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

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PAPERS

Prem Singh VERMA, Bhanwar Lal GORSI and Lovel P. SINGH

Estimation of the standard enthalpy of formation of alkanes in gas state by calculating size, structural and electronic parameters of the molecules

Rev. Roum. Chim., 2010, 55(10), 603-610

$$\Delta H_f^0 = -9.829 (\pm 0.175) {}^1\chi^v - 4.871 (\pm 0.670) I - 11.288$$

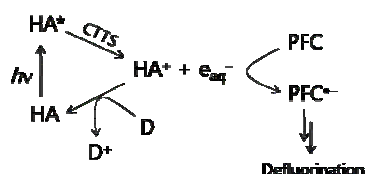
$$N = 44, r = 0.994, s = 1.889, F(2, 41) = 1776.123$$

Key words: Kier's molecular connectivity index (${}^1\chi^v$), van der Waals volume (vW), electrotopological state index (R), standard enthalpy of formation (ΔH_f^0)

Hyunwoong PARK

Photolysis of aqueous perfluorooctanoate and perfluorooctane sulfonate

Rev. Roum. Chim., 2010, 55(10), 611-619

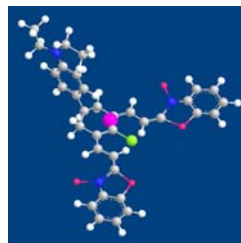


Key words: iodide, defluorination, hydrated electron, humic acid, perfluorinated

Joung-II SHIN, Soo-Youl PARK, Seung-Rim SHIN, Kun JUN, Hye-Soo YOUN, Kyoung-Lyong AN and Young-A SON

Synthesis and characterization of heptamethine NIR absorbing cyanine dye compounds

Rev. Roum. Chim., 2010, 55(10), 621-625

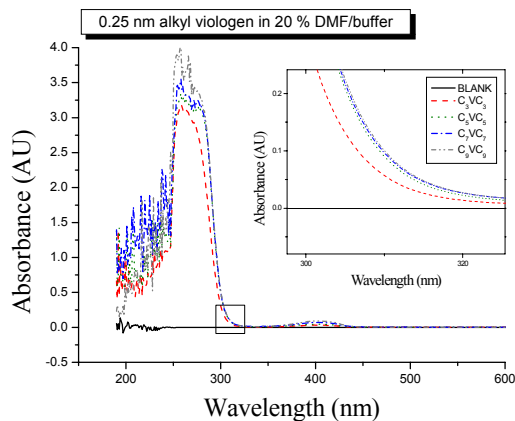


Key words: cyanine dyes, NIR absorbing, heptamethine, near infrared, dye compounds

Nam-Suk LEE, Hoon-Kyu SHIN, Young Joo KIM, Chun-Ho KIM and Soong-Hyuck SUH

HOMO-LUMO energy gap analysis of alkyl viologen with a positively charged aromatic ring

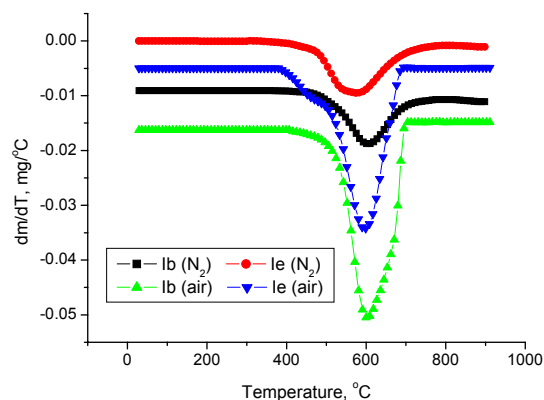
Rev. Roum. Chim., 2010, 55(10), 627-632



Key words: alkyl viologen, HOMO-LUMO energy gap

**Ion SAVA, Ștefan CHIȘCĂ, Maria BRUMĂ
and Gabriela LISA**

Aromatic polyimides containing methylene units.
Thermal behaviour

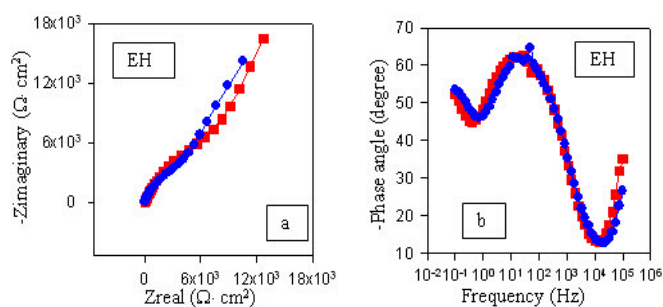


Rev. Roum. Chim., 2010, 55(10), 633-638

Key words: aromatic polyimides, methylene bridges, thermal behaviour

**Julia C. MIRZA ROSCA, Mihai V. POPA,
Ecaterina VASILESCU, Paula DROB,
Cora VASILESCU and Silviu I. DROB**

Effects of electrochemical and thermal oxidation
on the behaviour of some biomaterials in
simulated body fluids

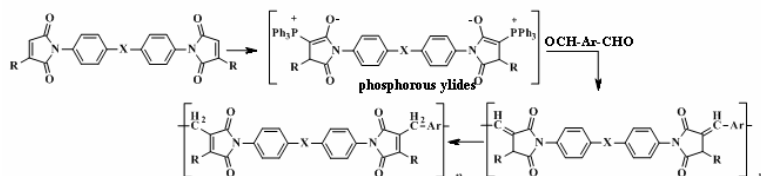


Rev. Roum. Chim., 2010, 55(10), 639-646

Key words: electrochemical and thermal treatments, titanium bioalloys,
microhardness, EIS, statistical analysis

Viorica GĂINĂ and Constantin GĂINĂ

New polymers with alkylidenesuccinimide
structures based on bismaleimides and
biscitraconimides

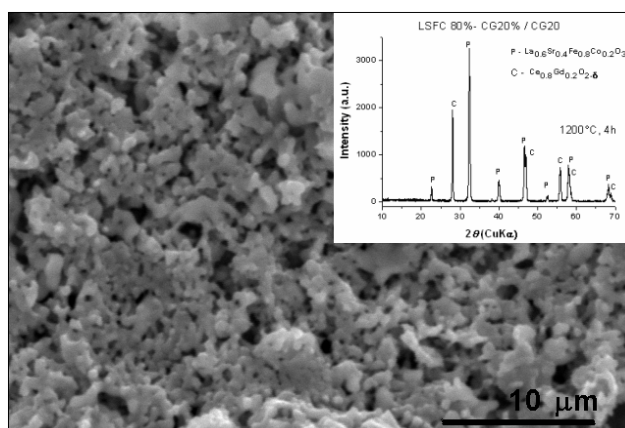


Rev. Roum. Chim., 2010, 55(10), 647-652

Key words: phosphorous ylides, bismaleimides, citraconimides

**Daniela BERGER, Cristian MATEI and
Ștefania STOLERIU**

Porous $\text{La}_{0.6}\text{Sr}_{0.4}\text{Fe}_{0.8}\text{Co}_{0.2}\text{O}_{3-\delta}$ – based cathode
materials for intermediate temperature solid oxide
fuel cells, deposited by screen-printing method

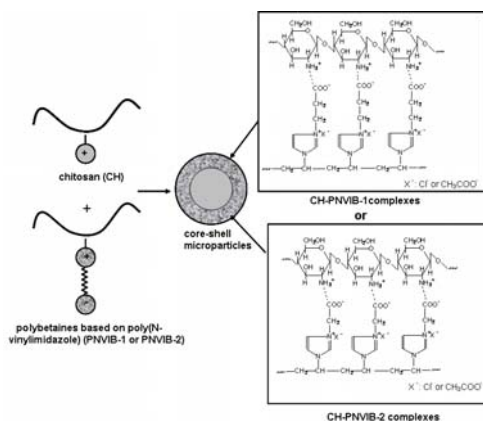


Rev. Roum. Chim., 2010, 55(10), 653-658

Key words: IT-SOFC, LSF, citrate-EDTA method, screen-printing

**Ștefania RACOVIȚĂ, Silvia VASILIU and
Cristina Doina VLAD**

New drugs delivery systems based on
polyelectrolyte complexes

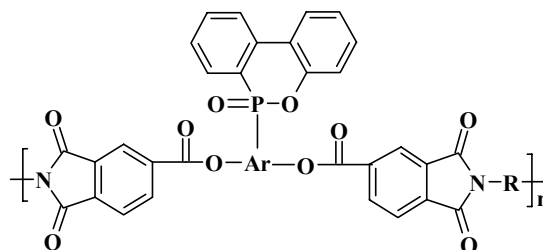


Key words: chitosan, polybetaines, complex coacervation method,
drug delivery systems

Rev. Roum. Chim., 2010, 55(10), 659-666

**Diana SERBEZEANU,
Tăchiță VLAD-BUBULAC and
Corneliu HAMCIUC**

Synthesis and characterization of new aromatic-
aliphatic poly(ester-imide)s containing
phosphorus

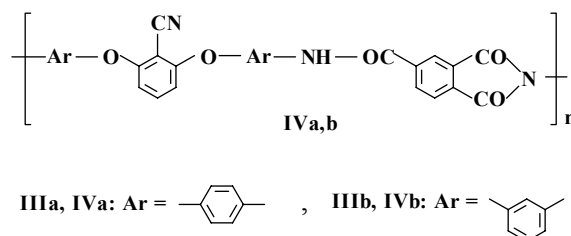


Key words: poly(ester-imide)s, phosphorus-containing polymers, good
solubility, thermal properties, photoluminescence

Rev. Roum. Chim., 2010, 55(10), 667-672

**Irina BACOȘCĂ, Elena HAMCIUC and
Maria BRUMĂ**

Aromatic poly(amide-imide)s containing flexible
linkages



Key words: poly(amide-imide)s, nitrile groups, high thermal stability,
mechanical properties

Rev. Roum. Chim., 2010, 55(10), 673-680

Daniela BALA and Constantin MIHAILCIUC

Entropy production and the redox reaction
occurring at ities in open circuit conditions

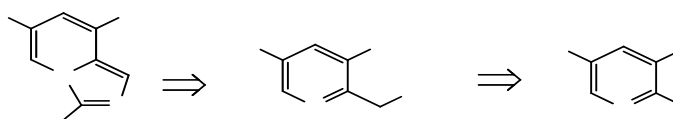
$$\frac{d_i S_{ITIES}}{dt} = \frac{i_{redox} P_{redox}}{T} - \frac{i_{ion} P_{ion}}{T} > 0$$

Key words: ITIES, open circuit, entropy production,
redox chemical reaction

Rev. Roum. Chim., 2010, 55(10), 681-688

**Monica MIHORIANU, Ionel MANGALAGIU,
Peter G. JONES, Constantin-Gabriel
DANILIU, M. Heiko FRANZ and Ion NEDA**

Synthesis of novel imidazo[1,5-a]pyridine
derivates

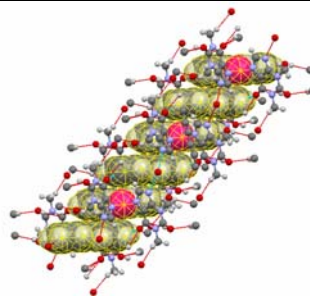


Key words: heterocycles, imidazo[1,5-a]pyridines, triphosgene,
thiophosgene

Rev. Roum. Chim., 2010, 55(10), 689-695

**Edit FORIZS, Agota DEBRECZENI,
Adrian PATRUT, Attila-Zsolt KUN,
Ionut Bogdan COZAR, Leontin DAVID and
Ioan SILAGHI-DUMITRESCU**

Synthesis, structure and DFT calculations on complexes of palladium(II) with theophylline

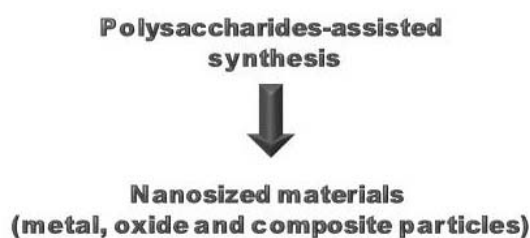


Rev. Roum. Chim., **2010**, 55(10), 697-704

Key words: Pd(II) complexes, theophylline, 2,2'-bipyridine, 1,10-phenanthroline, single crystal structure

**Oana CARP, Diana VISINESCU,
Greta PATRINOIU, Alina TIRSOAGA,
Carmen PARASCHIV and
Madalina TUDOSE**

Green synthetic strategies of oxide materials: polysaccharides-assisted synthesis. I. Polysaccharides roles in metal oxides synthesis



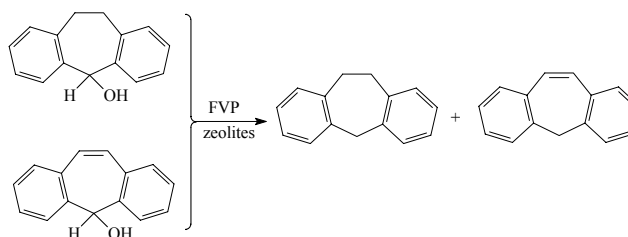
Rev. Roum. Chim., **2010**, 55(10), 705-709

Key words: nanosized materials, solution and low-temperature methods, polysaccharides, green chemistry

NOTE

**Daniela ISTRATI, Luminitza PĂRVULESCU,
Angela POPESCU, Dan MIHĂIESCU and
Florin BADEA**

Flow-vacuum pyrolysis of dibenzocycloheptane derivatives on zeolites catalysts. IV



Rev. Roum. Chim., **2010**, 55(10), 711-714

Key words: Flow-vacuum pyrolysis, dibenzocycloheptane derivatives, zeolite catalyst

Dr. Dumitru I. MARCHIDAN at his 80 anniversary

Rev. Roum. Chim., **2010**, 55(10), 715-716