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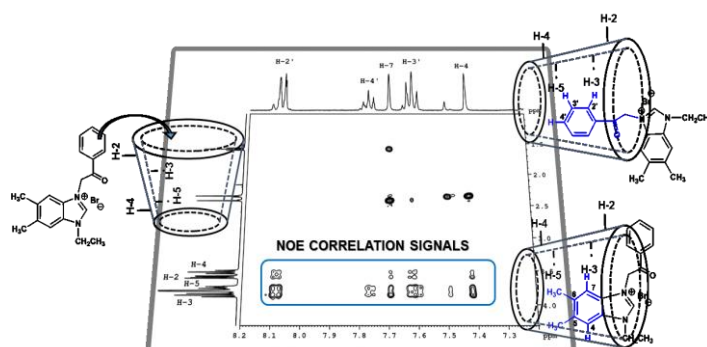
Acad. Maria ZAHARESCU at her 85th anniversary

Rev. Roum. Chim., 2023, 68(3-4), 113–118

PAPERS

Mihaela BALAN-PORCĂRAȘU, Alina
NICOLESCU, Emilian GEORGESCU, Florentina
GEORGESCU, Mihaela CRISTEA, Călin
DELEANU and Bogdan C. SIMIONESCU

Benzimidazolium bromide derivative inclusion
complexes with native and modified beta-
cyclodextrins

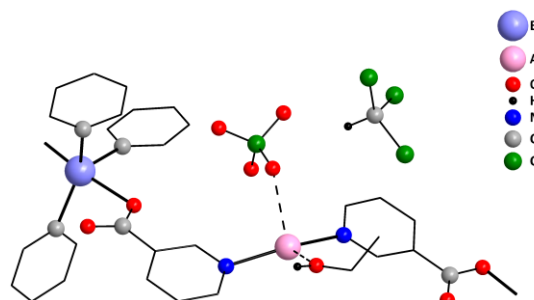


DOI: 10.33224/rch.2023.68.3-4.01
Rev. Roum. Chim., 2023, 68(3–4), 119–125

Key words: dimethylbenzimidazolium salts, cyclodextrins, inclusion complexes, NMR.

Ahmad BEN KIRAN, Anca SILVESTRU, Ciprian
I. RAȚ and Cristian SILVESTRU

[Ag(EtOH){Ph₃Bi[O(O)CC₅H₄N-3]₂}(ClO₄)]·CHCl₃ –
A coordination polymer based on a divergent, ditopic
metalloligand

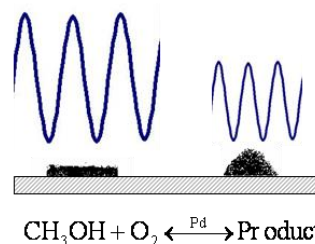


DOI: 10.33224/rch.2023.68.3-4.02
Rev. Roum. Chim., 2023, 68(3–4), 127–137

Key words: silver, bismuth, organometallic spacer, coordination polymer, X-ray diffraction, supramolecular aspects, theoretical calculations.

Veronica BRATAN and Nicolae I. IONESCU

Activation energy of heterogeneous catalytic
oxidation of methanol in oscillatory regime

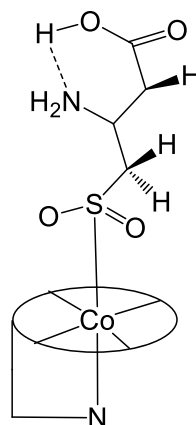


DOI: 10.33224/rch.2023.68.3-4.03
Rev. Roum. Chim., 2023, 68(3–4), 139–142

Key words: oscillations, activation energy, catalyst disposal.

Artiom GAINA-GARDIUTA, Alexandru LUPAN, Adrian M. V. BRÂNZANIC and Radu SILAGHI-DUMITRESCU

Study of cobalamin adducts with cysteine and its oxidized sulfenic, sulfinic and sulfonic derivatives

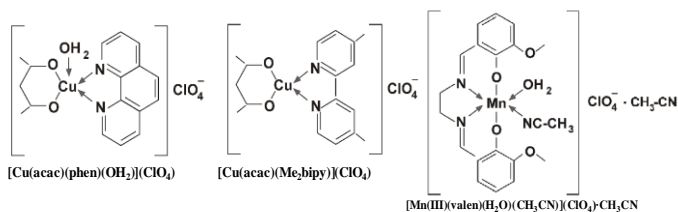


DOI: 10.33224/rch.2023.68.3-4.04
Rev. Roum. Chim., 2023, 68(3–4), 143–152

Key words: cobalt, vitamin B₁₂, thiol, cysteine, UV-vis, DFT.

Mihaela MUREȘEANU, Viorica PARVULESCU, Gabriela PETCU, Silviu NASTASE, Traian D. PASATOIU and Marius ANDRUH

Preparation and characterization of biomimetic heterogeneous catalysts with Cu(II) and Mn(III) complexes

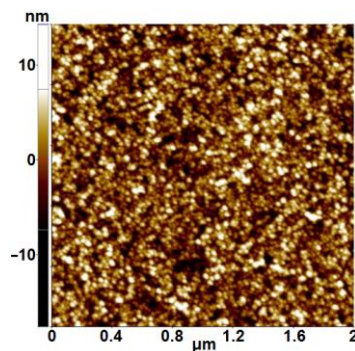


Key words: SBA-15, montmorillonite, Al-pillared montmorillonite, Cu(II) complexes, Mn(III) complexes, laccase, biomimetic catalysts.

DOI: 10.33224/rch.2023.68.3-4.05
Rev. Roum. Chim., 2023, 68(3–4), 153–164

Madalina NICOLESCU, Mihai ANASTASESCU, Jose Maria CALDERON MORENO, Hermine STROESCU, Maria COVEI, Irina ATKINSON, Susana MIHAIU and Mariuca GARTNER

Optical and electrical properties of Al-doped ZnO thin films deposited by sol-gel method

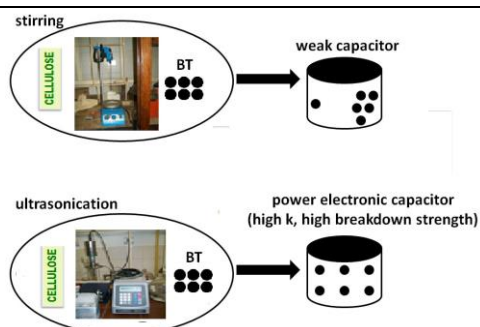


Key words: Al doped ZnO, sol-gel, optical properties, Raman spectroscopy, photoluminescence.

DOI: 10.33224/rch.2023.68.3-4.06
Rev. Roum. Chim., 2023, 68(3–4), 165–171

Răzvan ROTARU, Carmen-Mihaela POPESCU, Andrei DASCĂLU, Daniel ȚÎMPU, Mihai ASĂNDULESA, Maria Emiliană FORTUNĂ and Valeria HARABAGIU

Influence of ultrasonic treatment and heating/cooling under electric field on high-*k* cellulose-barium titanate composites

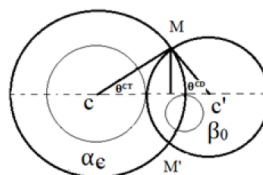


Key words: cellulose-barium titanate composites, ultrasonication, dielectric properties.

DOI: 10.33224/rch.2023.68.3-4.07
Rev. Roum. Chim., 2023, 68(3–4), 173–183

Carmen-Irena MITAN, Emerich BARTHA, Petru FILIP, Constantin DRAGHICI, Miron T. CAPROIU and Robert M. MORIARTY

Manifold inversion on prediction dihedral angle from vicinal coupling constant with 3-sphere approach



θ^{CT} angle of torus
 θ^{CD} angle of Dupin Cyclide

Eq. 3: $\tan^{-1} \sin(-\phi) = \theta_{HnHn+1}$,

Eq. 4: $\sin^{-1}(\cot(-\phi)) = \theta_{HnHn+1}$,

Eq. 5: $\sin^{-1}(\tan(-\phi)) = \theta_{HnHn+1}$

Where: ϕ – vicinal angle [deg],
 angle result from vicinal coupling
 constant $^3J_{HH}$ [Hz], θ_{HnHn+1} [deg]

DOI: 10.33224/rch.2023.68.3-4.08
 Rev. Roum. Chim., 2023, 68(3–4), 185–191

Key words: dihedral angles, vicinal angles, cyclide inversion, 3-sphere, Hopf fibration, Lie algebra, vicinal coupling constant.

