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Tome 70, N^{os} 5–6

Mai–Jun 2025

To Professor Ion Grosu on the occasion of his 70th anniversary – A lifetime dedicated to organic chemistry

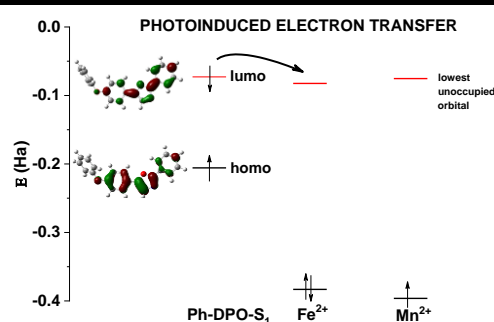
Rev. Roum. Chim., 2025, 70(5–6), 239–242

PAPERS

**Cristina TABLET, Alexandru T. BALABAN
and Mihaela HILLEBRAND**

Fluorescence quenching study of an oxazole
derivative by metal ions

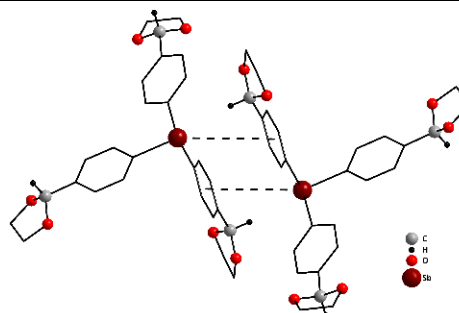
DOI: 10.33224/rrch.2025.70.5-6.01
Rev. Roum. Chim., 2025, 70(5–6), 243–248



Key words: oxazole derivatives, fluorescence, quenching, DFT calculations.

**Florin ADĂSCĂLIȚEI, Ciprian I. RAȚ,
Mihaela VLASSA, Richard A. VARGA
and Cristian SILVESTRU**

Synthesis and spectroscopic characterization of
homoleptic triorganopnictogen(III) compounds –
useful precursors for functionalized materials.
Molecular structure of $[4-\{(CH_2O)_2CH\}C_6H_4]_3Sb$

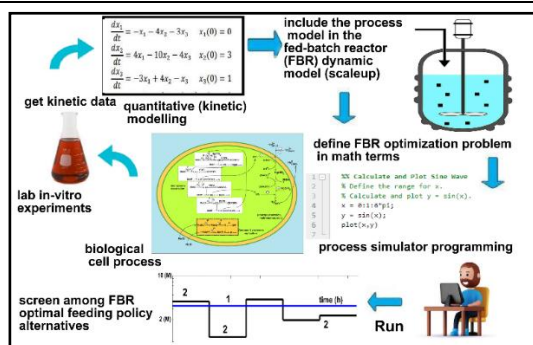


DOI: 10.33224/rrch.2025.70.5-6.02
Rev. Roum. Chim., 2025, 70(5–6), 249–259

Key words: triorganopnictogen, homoleptic, antimony, bismuth, NMR spectroscopy, X-ray diffraction, supramolecular aspects.

**Laura RENEĂ, Gheorghe MARIA
and Daniela GHEORGHE**

In-silico derived optimal operation policies of a
fed-batch bioreactor to maximize the mAbs
production by using Pareto optimal techniques

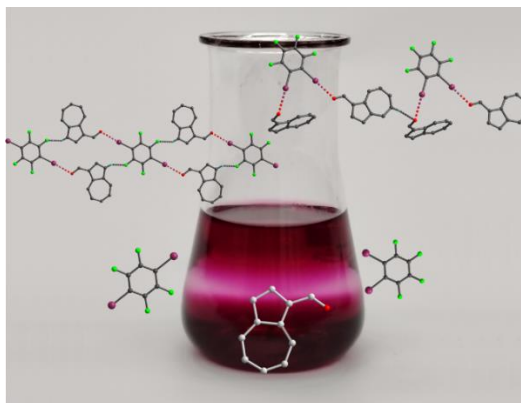


DOI: 10.33224/rrch.2025.70.5-6.03
Rev. Roum. Chim., 2025, 70(5–6), 261–278

Key words: monoclonal antibodies (mAbs), hybridoma cells, batch or fed-batch bioreactors, production maximization, raw material consumption minimization, Pareto optimal front.

Andreea DOGARU, Adrian E. ION,
Andrei A. PATRASCU, Mihai RĂDUCĂ,
Gheorghe DUCA, Marius ANDRUH
and Simona NICA

Halogen-bonded co-crystals of azulene-1-
carboxaldehyde with perfluorinated
diiodobenzenes

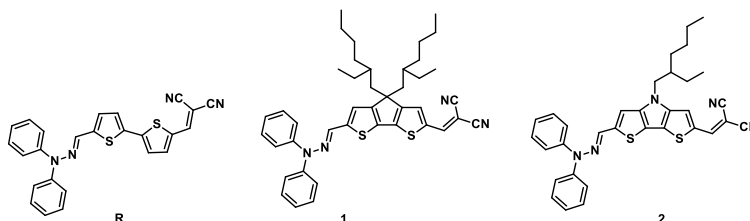


DOI: 10.33224/rrech.2025.70.5-6.04
Rev. Roum. Chim., 2025, 70(5–6), 279–286

Key words: crystal engineering; halogen bonds; co-crystals; azulene-
aldehyde.

Andreea Petronela CRIȘAN, Elena BOGDAN,
Lidia CĂTA, Niculina D. HĂDADE
and Anamaria TERC

Effect of π -spacer rigidification on the
optoelectronic properties and photovoltaic
performance of small D- π -A molecules

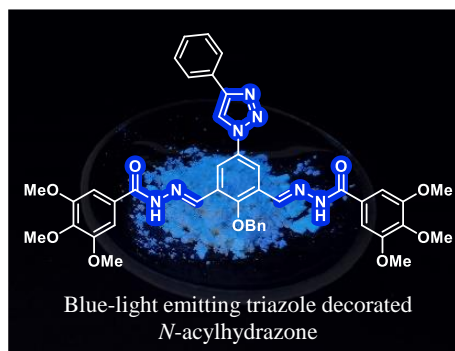


DOI: 10.33224/rrech.2025.70.5-6.05
Rev. Roum. Chim., 2025, 70(5–6), 287–297

Key words: donor-pi-acceptor, hydrazone, rigid pi spacer,
cyclopentadithiophene (CPDT), dithienopyrrole (DTP).

Adriana ANGHEL, Teodora Christina PURICE,
Anamaria HANGANU, Anca PAUN,
Codruta C. POPESCU, Ioana NICOLAU,
Niculina D. HADADE, Arnaud GAUTIER
and Mihaela MATACHE

Structural diversification of *N*-acylhydrazones by
click chemistry

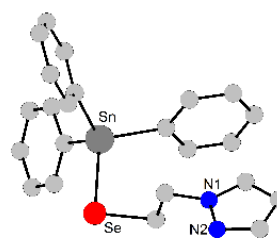


DOI: 10.33224/rrech.2025.70.5-6.06
Rev. Roum. Chim., 2025, 70(5–6), 299–304

Key words: *N*-acylhydrazone, click chemistry, CuAAC, azide, light-
emission

Melinda Tamas, Alexandra Pop
and Anca Silvestru

Homoleptic triorganotin(IV) organoselenolates of
type $R_3Sn(SeCH_2CH_2pz)$

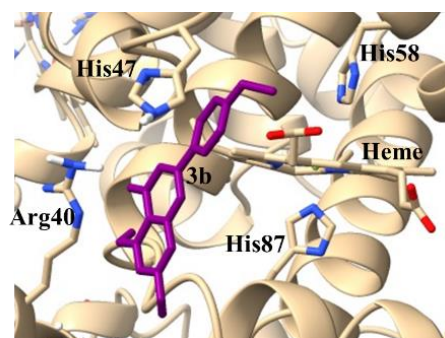


DOI: 10.33224/rrech.2025.70.5-6.07
Rev. Roum. Chim., 2025, 70(5–6), 305–311

Key words: homoleptic triorganotin(IV) compounds, solution behaviour,
single-crystal X-ray diffraction.

Ariadna Maria COSPRUNDAN,
Nicoleta ANDRIAN, Cezara ZAGREAN-TUZA,
Maria LEHENE, Balazs BREM,
Emese GAL, Alexandru LUPAN
and Radu SILAGHI-DUMITRESCU

Influence of the second coordination sphere on the autooxidation reaction in oxygen-binding proteins

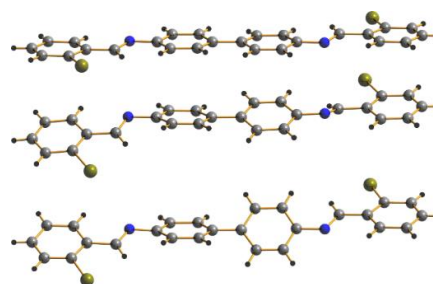


DOI: 10.33224/rrch.2025.70.5-6.08
Rev. Roum. Chim., 2025, 70(5–6), 313–327

Key words: hemoglobin, hemerythrin, autooxidation, heme, superoxide, DFT.

Adrian-Alexandru SOMESAN,
Ioana BARBUL and Richard A. VARGA

Structural characterization of some symmetric bis-imines

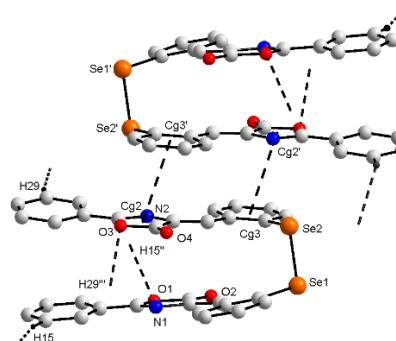


DOI: 10.33224/rrch.2025.70.5-6.09
Rev. Roum. Chim., 2025, 70(5–6), 329–336

Key words: bis-imines, solution NMR spectroscopy, molecular structure, polymorphs, intermolecular interaction.

Cosmina BOHAN, Nora CHIOREAN,
Emese GAL and Alexandra POP

Synthesis, characterization and reactivity of [(Z)-2'-(2-C₆H₅-(4H)-oxazol-5-one)CHC₆H₄]₂Se₂

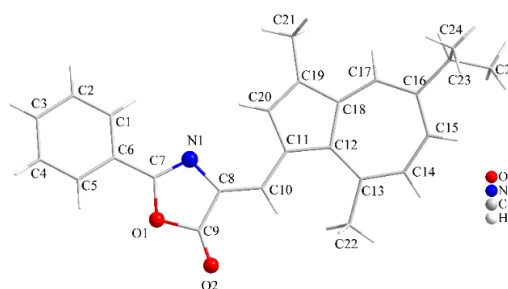


DOI: 10.33224/rrch.2025.70.5-6.10
Rev. Roum. Chim., 2025, 70(5–6), 337–344

Key words: diorganoselenium(I), metal complexes, oxazolone, NMR spectroscopy, crystal structure, intermolecular interactions.

Mihai RĂDUCĂ, Marcel Mirel POPA,
Mihaela CRISTEA, Alexandru C. RAZUS
and Florea DUMITRASCU

Crystal structure and Hirshfeld surface analysis of (Z)-4-((5-isopropyl-3,8-dimethylazulen-1-yl)methylene)-2-phenyloxazol-5(4H)-one



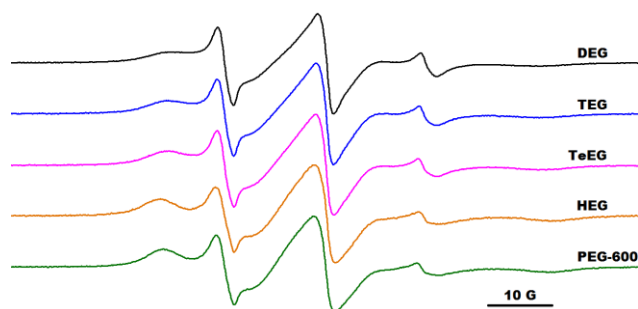
DOI: 10.33224/rrch.2025.70.5-6.11
Rev. Roum. Chim., 2025, 70(5–6), 345–350

Key words: crystal structure, 1-vinylazulene, oxazolonic ring, Erlenmeyer–Plöchl synthesis, single-crystal X-ray diffraction, Hirshfeld analysis, energy frameworks.

Alexandru-Vincentiu-Florian NECULAE,
Victorita TECUCEANU, Petre IONITA,
Florenta SAVONEA, Mihaela Lavinia CIUTU,
Carla-Cezarina PADURETU
and Gabriela IONITA

Synthesis and solubility properties of spin-labeled curcumin

DOI: 10.33224/rch.2025.70.5-6.12
Rev. Roum. Chim., 2025, 70(5-6), 351-357



Key words: EPR spectroscopy, spin-labeled curcumin, oligoethylene glycols.

Valeria POP, Alexandru OZUNU
and Elisephane IRANKUNDA

Analysis of public awareness and perception of microplastic particles in Roumania

DOI: 10.33224/rch.2025.70.5-6.13
Rev. Roum. Chim., 2025, 70(5-6), 359-367



Key words: microplastics, behavior, environment, human health, Roumania.