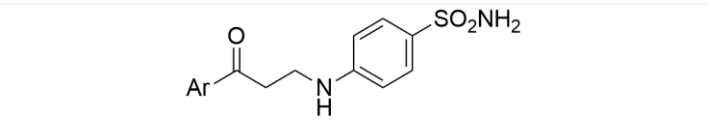
REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

Tome 69, Nos 3–4 **Mars–Avril 2024**

PAPERS

Gheorghe ROMAN

Novel aminobenzenesulfonamides as potential inhibitors of carbonic anhydrases



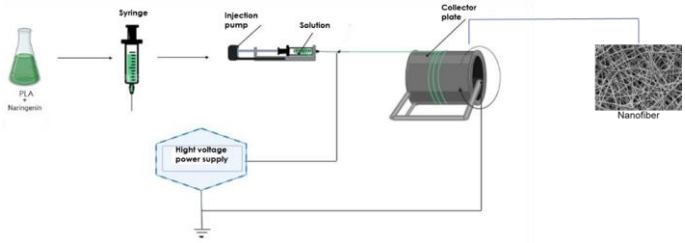
Ar = C_6H_5; 4-ClC_6H_4; 3-ClC_6H_4; 4-BrC_6H_4; 2-HOC_6H_4; 4-HOC_6H_4; 4-$H_3COC_6H_4$; 4-$(C_6H_5CH_2O)C_6H_4$; 2-$(C_6H_5CH_2O)C_6H_4$; 4-$C_6H_5C_6H_4$; 3,4-$(CH_3O)_2C_6H_3$; naphthalen-2-yl; thiophen-2-yl

DOI: 10.33224/rrch.2024.69. 3-4.01
Rev. Roum. Chim., **2024**, *69*(3–4), 111–117

Key words: sulfonamide, Mannich bases, alkylation, NMR, structural analysis.

Serap AYAZ SEYHAN, Zeynep ERDAG, Sumeyye CESUR and Dilek BILGIC ALKAYA

Production and antioxidant activity of electrospun polylactic acid (PLA) nanofibrous mats containing naringenin (NAR) for potential wound healing applications

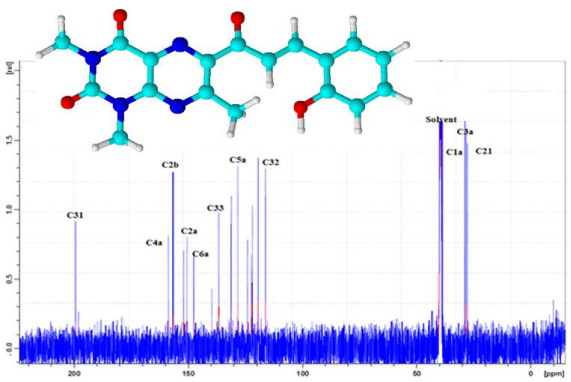


DOI: 10.33224/rrch.2024.69. 3-4.02
Rev. Roum. Chim., **2024**, *69*(3–4), 119–127

Key words: electrospinning, antioxidant, naringenin, polylactic acid, nanofiber, wound dressing.

Nabila EL AZZOUZI, Yassmina BAKHTAOUI, Fatimezzahra DARHMAOUI, Abdelkader ZARROUK, Jaouad BENSALAH, Maryem El ABBOUDI, Ali OUMIRDINE and El Housseine RIFI

Synthesis and characterization of a new O,N,O-tridentate ligand and its Cu(I), Cu(II), Ag(I), Cd(II), Zn(II) and Re(II) complexes

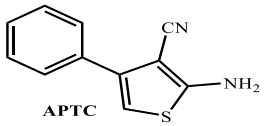


DOI: 10.33224/rrch.2024.69. 3-4.03
Rev. Roum. Chim., **2024**, *69*(3–4), 129–137

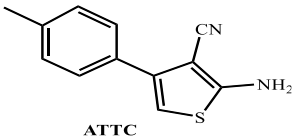
Key words: synthesized, tridentate ligand, elemental analysis, IR/MS/RMN.

Yazid DATOUSSAID, Hadjer MISSOUM, Tarik ATTAR, Boulanouar MESSAOUDI, Abbes BENCHADLI, Esma CHOUKCHOU-BRAHAM, Noureddine CHOUKCHOU-BRAHAM and Chewki ZIANI-CHERIF

Experimental and theoretical studies of aminothiophene derivatives inhibitors on carbon steel corrosion in perchloric acid medium



APTC
2-amino-4-phenylthiophene-3-carbonitrile



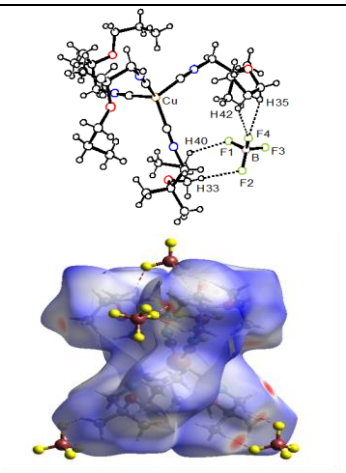
ATTC
2-amino-4-*p*-tolylthiophene-3-carbonitrile

DOI: 10.33224/rrch.2024.69. 3-4.04
Rev. Roum. Chim., **2024**, *69*(3–4), 139–148

Key words: aminothiophene, inhibitors corrosion, carbon steel, DFT.

Mohammad K. SABRA and Mahmoud M. Al-KTAIFANI

Molecular, crystal structure and Hirshfield analysis of tetrakis (2-propoxy isobutyl isonitrile) copper(I) tetrafluoroborate by power X-ray diffraction study

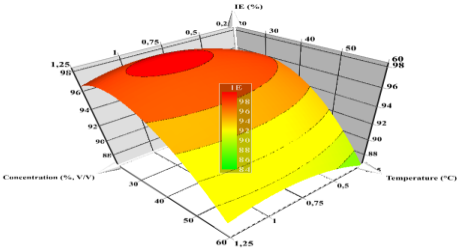


DOI: 10.33224/rrch.2024.69. 3-4.05
Rev. Roum. Chim., **2024**, *69*(3–4), 149–156

Key words: crystal structure, Cu complex, Hirshfield surface analysis, isonitrile, powder X-ray diffraction.

Benhadria NACEUR, Tarik ATTAR, Abbes BENCHADLI and Esma CHOUKCHOU-BRAHAM

Enchancing corrosion resistance of carbon steel using expired pharmaceutical drug sulpuren: a response surface methodology approach in acidic media



DOI: 10.33224/rrch.2024.69. 3-4.06
Rev. Roum. Chim., **2024**, *69*(3–4), 157–169

Key words: corrosion inhibition, carbon steel, expired drug, adsorption isotherms, thermodynamic parameters, experimental design.

Idawu Yakubu SULEIMAN, Kabiru MU'AZU, Omah Augustine DINOBI, Egoigwe Vincent SOCHIMA and Njoku Romanus EGWUONWU

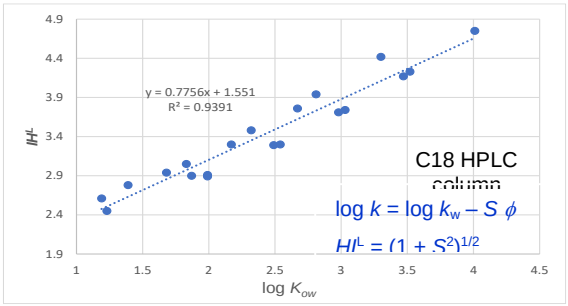
Sustainability approach to corrosion mitigation using eco-friendly inhibitor for oil and gas applications

DOI: 10.33224/rrch.2024.69. 3-4.07
Rev. Roum. Chim., **2024**, *69*(3–4), 171–182

Key words: phytoconstituents, FT-IR, tannins, GC-MS, *Euphorbia hirta*, functional groups.

Victor DAVID, Toma GALAON, Edvin CAIALI and Serban C. MOLDOVEANU

Some theoretical considerations on an empirical hydrophobicity index in reversed-phase liquid chromatography

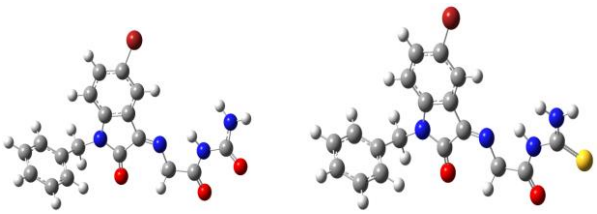


DOI: 10.33224/rrch.2024.69. 3-4.08
Rev. Roum. Chim., **2024**, *69*(3–4), 183–190

Key words: HPLC hydrophobicity index, reversed-phase liquid chromatography, extrapolated retention factor; mobile phase composition, octanol-water partition constant.

Adel KHIOUANI and Salah Eddine HACHANI

Evaluating the corrosion inhibition potential of two innovative N-benzyl-5-bromo isatin derivatives for carbon steel in alkaline environments: insights from DFT, SAR and toxicology

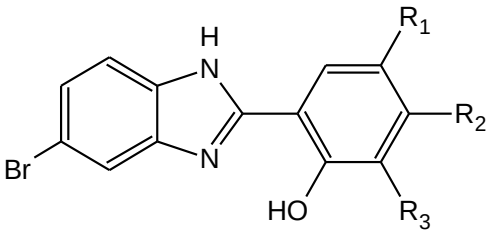


DOI: 10.33224/rrch.2024.69. 3-4.09
Rev. Roum. Chim., **2024**, *69*(3–4), 191–199

Key words: DFT, SAR, toxicity, N-benzyl-5-bromo isatin, Mulliken charge.

Aydin TAVMAN, Demet GÜRBÜZ, Ayça Aktaş KARAÇELİK, Dilşat Nigar ÇOLAK, Derya EFE and Adem ÇINARLI

Spectral characterization, antibacterial and antioxidant activity of 2-(5-bromo-1*H*-benzimidazol-2-yl)-(3'/4'/5'-substituted)phenols and some transition metal complexes

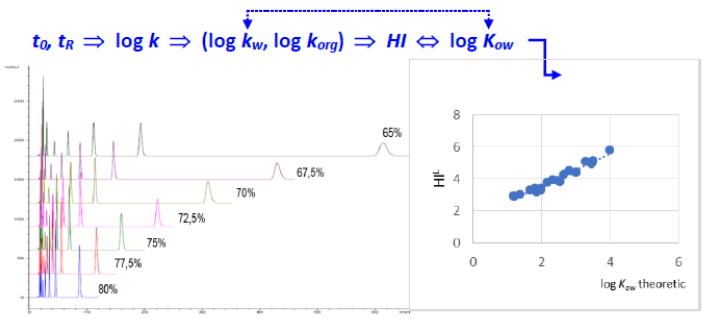


DOI: 10.33224/rrch.2024.69. 3-4.10
Rev. Roum. Chim., **2024**, *69*(3–4), 201–214

Key words: benzimidazole, phenol, halogen, transition metal complexes, antibacterial, antioxidant.

Toma GALAON, Edvin CAIALI, Serban C. MOLDOVEANU and Victor DAVID

Correlation of solvent strength parameter with two molecular descriptors in reversed-phase liquid chromatography

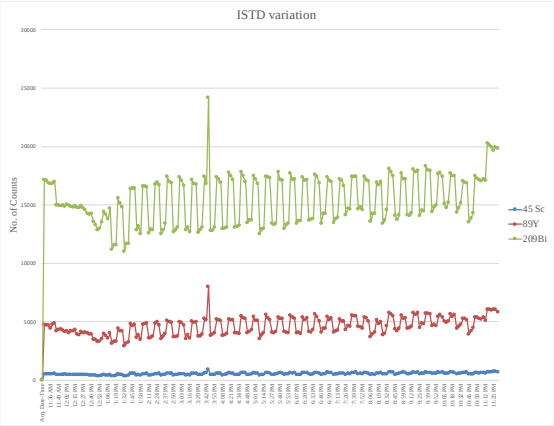


DOI: 10.33224/rrch.2024.69. 3-4.11
Rev. Roum. Chim., **2024**, *69*(3–4), 215–221

Key words: reversed-phase separation mechanism, hydrophobicity index, solvent strength parameter, octanol-water partition constant, extrapolated retention factor.

Florin ALBOTA, Andreea SERBAN, Erhan IONUZ, Marian VIRGOLICI, Catalin DONEA, Ioana DOBRESCU and Ioan-Valentin MOISE

A new method for screening elemental impurities in medico-pharmaceutical disinfectants



DOI: 10.33224/rrch.2024.69.3-4.12
Rev. Roum. Chim., **2024**, *69*(3–4), 223–232

Key words: mass-spectrometry, ICP-MS, desinfectants, method validation.