

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

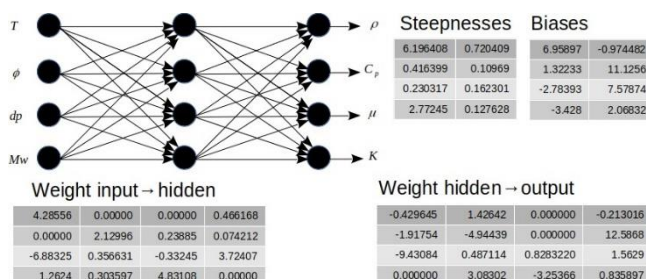
Tome 69, Nos 1–2

Janvier–Février 2024

## PAPERS

Behrouz RAEI and Alireza BOZORGIAN

Prediction of some physical properties of nanofluids including various metal oxides using artificial neural network

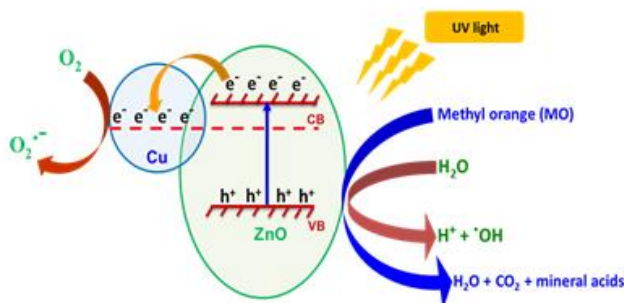


DOI: 10.33224/rrech.2024.69.1-2.01  
Rev. Roum. Chim., 2024, 69(1–2), 5–17

**Key words:** nanofluids, viscosity, artificial neural network, thermal conductivity.

Zaineb HAMMAMI, Bilel CHOUCHE, Mouldi ZOUAOU, Tahar BEN CHAABANE and Raphaël SCHNEIDER

Enhanced photocatalytic activity of copper-doped ZnO nanocrystals synthesized by a hydrothermal route

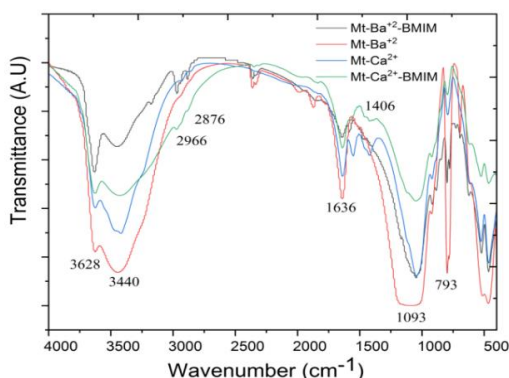


DOI: 10.33224/rrech.2024.69.1-2.02  
Rev. Roum. Chim., 2024, 69(1–2), 19–24

**Key words:** hydrothermal synthesis, ZnO, copper, photocatalysis, optimal content.

Abdeldjabbar BELBEL, Ahmed DRAOUI and Khaled BRIKI

Effect of interlayer cations on the adsorption of ionic liquid on montmorillonite clays: comparative study

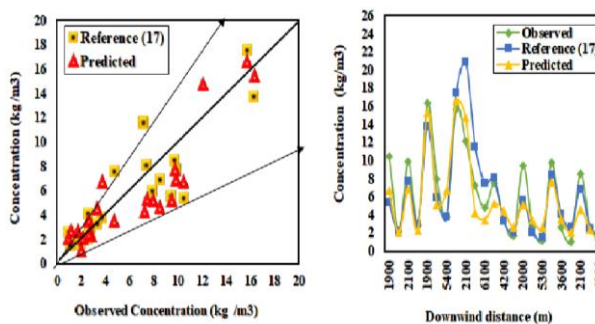


DOI: 10.33224/rrech.2024.69.1-2.03  
Rev. Roum. Chim., 2024, 69(1–2), 25–31

**Key words:** montmorillonite, alkaline-earth cation, adsorption, ionic liquid.

**Khaled S. M. ESSA  
and Sawsan I. M. ELSAID**

Evaluation Gaussian concentration using dispersion parameters in Puff Plume model

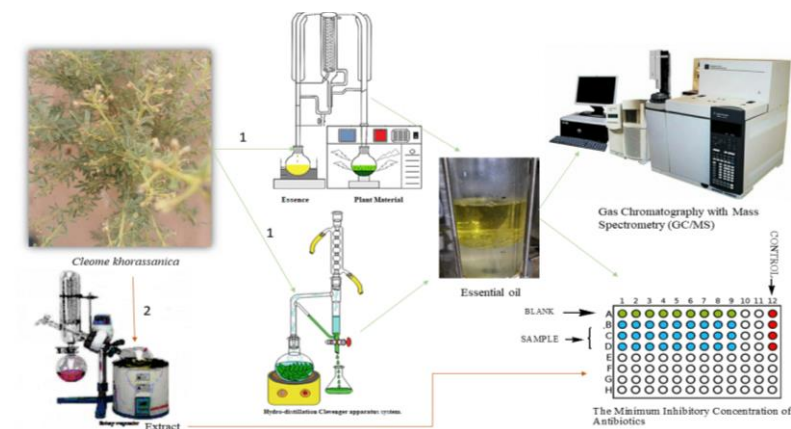


DOI: 10.33224/rrch.2024.69.1-2.04  
Rev. Roum. Chim., 2024, 69(1-2), 33–39

**Key words:** wind speed, turbulence coefficients, air pollution modelling, Puff model, dispersion parameters, Gaussian model.

**Manijeh JOUKAR, Kambiz LARIJANI,  
Mohammad Hossein FARJAM,  
Mohammad Hadi GIVIANRAD  
and Fereshteh NEMATOLLAHI**

A comparative study of microwave-assisted and conventional hydro distillation methods for extracting essential oils and evaluating their antimicrobial activity from *Cleome khorassanica*: novel research

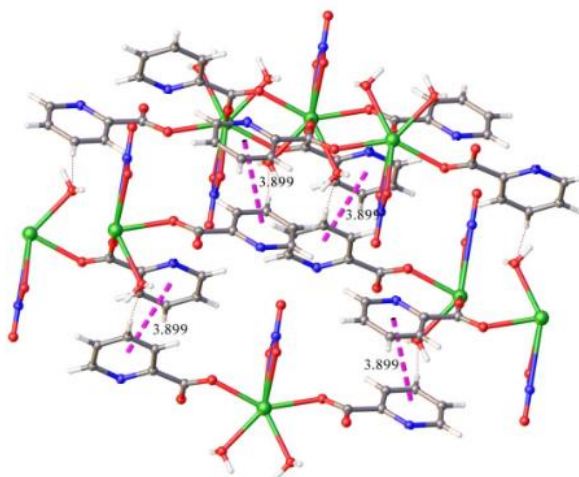


DOI: 10.33224/rrch.2024.69.1-2.05  
Rev. Roum. Chim., 2024, 69(1–2), 41–48

**Key words:** *Cleome khorassanica*, essential oil, antimicrobial activity, chemical composition, MIC.

**Ting PENG, Xiao-Yong CHEN,  
Ting-Qun QIU, Jia-Liang FAN,  
Li-Yong HUANG, Xiu-Guang YI  
and Xu-Liang NIE**

Preparation, structure and properties of a novel one-dimensional erbium (III) complex

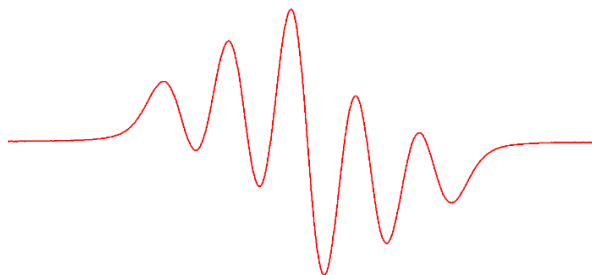


DOI: 10.33224/rrch.2024.69.1-2.06  
Rev. Roum. Chim., 2024, 69(1–2), 49–56

**Key words:** hydrothermal preparation, crystal structure, Er(III).

**Adela F. DOBRE, Augustin M. MADALAN, Victorita TECUCEANU, Anamaria HANGANU and Petre IONITA**

Synthesis of novel *p*-aminophenyl derivates of DPPH free radical

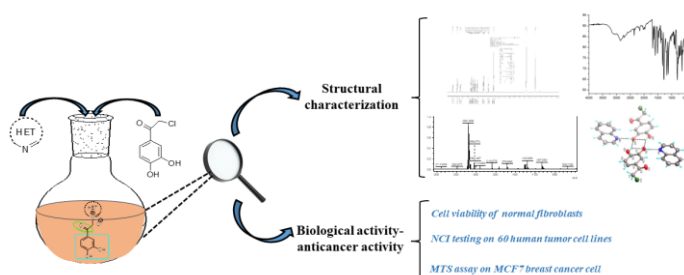


DOI: 10.33224/rrch.2024.69.1-2.07  
Rev. Roum. Chim., 2024, 69(1–2), 57–61

**Key words:** hydrazyl, free radical, synthesis, DPPH, ESR.

**Monica-Cornelia SARDARU, Cristina-Maria AL MATARNEH, Natalia SIMIONESCU, Ionel I. MANGALAGIU, Mariana PINTEALA and Ramona DANAC**

New monoquaternary salts of *N*-heterocycles: synthesis and antitumor assessment

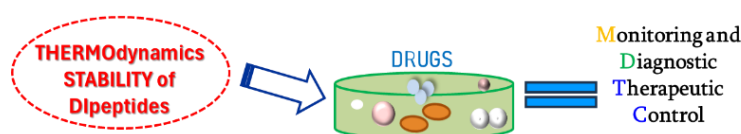


DOI: 10.33224/rrch.2024.69.1-2.08  
Rev. Roum. Chim., 2024, 69(1–2), 63–74

**Key words:** quinoline, isoquinoline, quinoxaline, phthalazine, pyrrolopyridine, (*E*)-1,2-di(pyridin-4-yl)ethene, 4,4'-bipyridine, 2,4'-bipyridine, anticancer.

**Ana NEACȘU, Daniela GHEORGHE, Cornelia MARINESCU, Ancuța Mihaela SOFRONIA and Speranța TĂNĂSESCU**

Investigation of thermochemical features of L-alanyl-glycine and β-alanyl-L-histidine (L-carnosine)

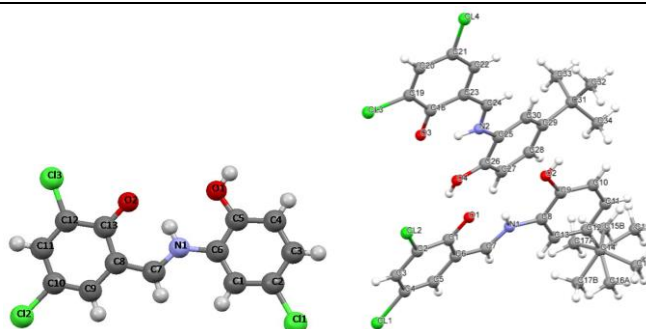


DOI: 10.33224/rrch.2024.69.1-2.09  
Rev. Roum. Chim., 2024, 69(1–2), 75–82

**Key words:** dipeptides, enthalpy of combustion and formation, thermochemical stability, TG/DSC.

**Dildora PARDAEVA, Aydin TAVMAN, Demet GÜRBÜZ, Mayram HACIOGLU, Fatma Nur YILMAZ, Onur ŞAHİN, A. Seher BIRTEKSÖZ TAN and Adem ÇINARLI**

Spectral characterization and antibacterial, antifungal, antiviral activity of salicyl based new Schiff bases and their Co(II), Ni(II), Cu(II), Zn(II) and Pd(II) complexes

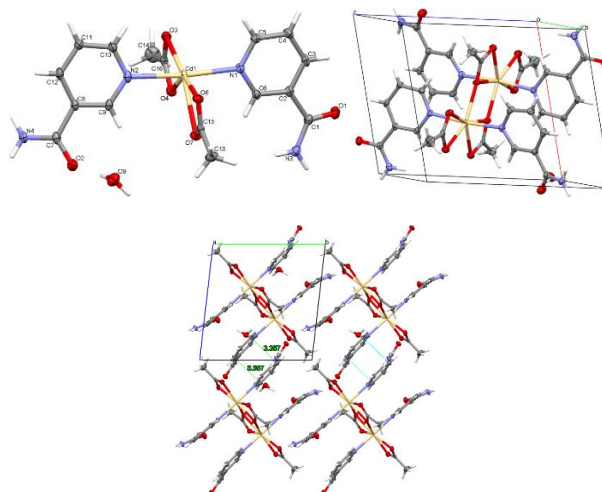


DOI: 10.33224/rrch.2024.69.1-2.10  
Rev. Roum. Chim., 2024, 69(1–2), 83–96

**Key words:** Schiff bases, salicyl, metal complexes, antimicrobial activity, antiviral activity

Laurențiu PRICOP,  
Maria Olimpia MICLĂUȘ,  
Mihaela Elena BADEA,  
Ana Maria HANGANU  
and Mihaela GANCIAROV

Nicotinamide, acetate and their two new  
complexes with Zn(II) and Cd(II)



DOI: 10.33224/rrch.2024.69.1-2.11  
Rev. Roum. Chim., 2024, 69(1–2), 97–105

**Key words:** dinuclear complex, chelate acetate group, nicotinamide, hydrogen bonding.