

# REVUE ROUMAINE DE CHIMIE (ROUMANIAN JOURNAL OF CHEMISTRY)

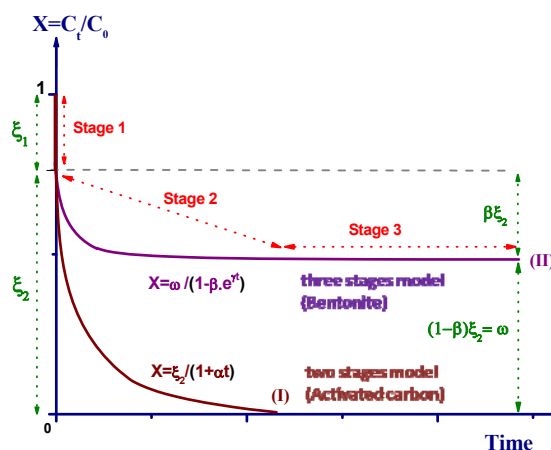
Tome 66, N° 6

Juin 2021

## PAPERS

**Nouzha BOUZIANE, Amel ALOUI,  
Samia BEHLOUL and Abdenour ZERTAL**

Kinetic models  
of aqueous 2-mercaptobenzothiazole  
adsorption on local clay and activated carbon

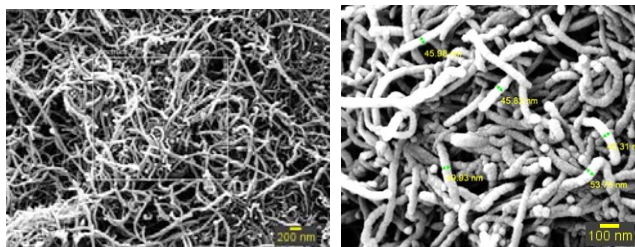


DOI: 10.33224/rch.2021.66.6.01  
Rev. Roum. Chim., 2021, 66(6), 479-491

**Key words:** adsorption, activated carbon, bentonite, kinetic models.

**Ali MOGHIMI, Milad ABNIKI,  
Mehdi KHALAJ and Mahnaz QOMI**

Construction of modified nanotube carbon carboxyl  
by new method and application in dispersive solid  
phase extraction for preconcentration of Ni<sup>2+</sup>

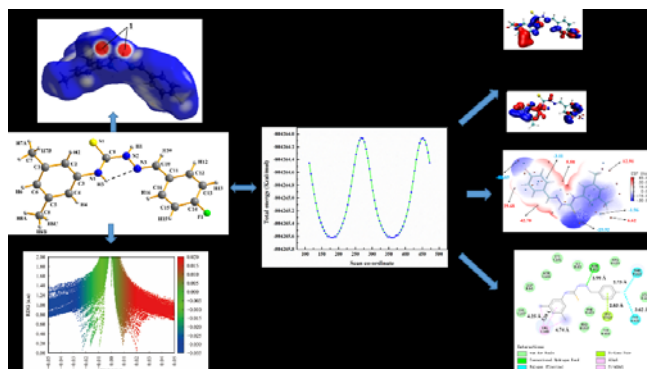


DOI: 10.33224/rch.2021.66.6.02  
Rev. Roum. Chim., 2021, 66(6), 493-507

**Key words:** modified nanotube carbon carboxyl, preconcentration of heavy metals, Ni (II) ion, SPE.

**Fan QI, Sifan WANG, Chenli WEI, Zeyu GUO,  
Jirong SONG and Jie HUANG**

Synthesis, crystal structure, quantum chemical  
calculation and molecular docking on  
(E)-1-(4-fluorobenzylidene)-4-(3,5-  
dimethylphenyl)thiosemicarbazone

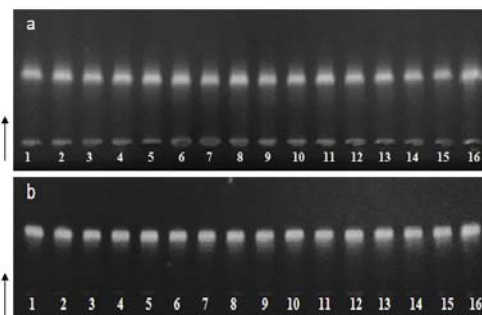


DOI: 10.33224/rch.2021.66.6.03  
Rev. Roum. Chim., 2021, 66(6), 509-520

**Key words:** crystal structure, PES scan, Hirshfeld surface, quantum chemical calculation, molecular docking.

Ali ŞENOL, Alparslan Kadir DEVRİM,  
Mert SUDAGIDAN and Veli Cengiz OZALP

An investigation on the DNA binding activities of melamine, cyanuric acid and uric acid

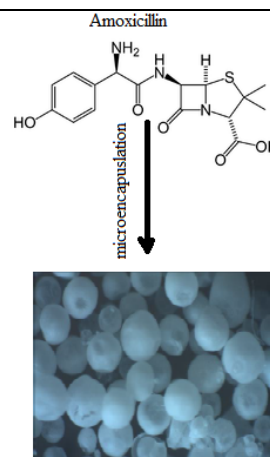


DOI: 10.33224/rch.2021.66.6.04  
*Rev. Roum. Chim.*, 2021, 66(6), 521-526

**Key words:** DNA, melamine, cyanuric acid, uric acid, UV-absorbance, fluorescence spectrophotometry, agarose gel electrophoresis.

İlham ABDELMALEK, Meryem MOUFFOK,  
Lamia BENNABI, Abderrezzak MESLI,  
Kaddour GUEMRA and El Habib BELARBI

Preparation, characterization and microbiological activity of amoxicillin-loaded cellulose acetate phthalate / $\beta$ -cyclodextrin based microspheres and their controlled release behavior

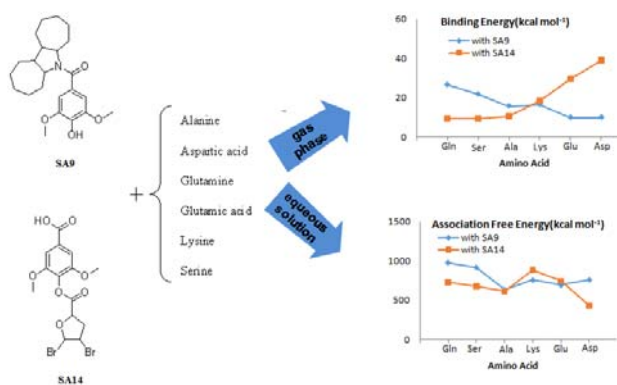


DOI: 10.33224/rch.2021.66.6.05  
*Rev. Roum. Chim.*, 2021, 66(6), 527-536

**Key words:** amoxicillin,  $\beta$ -cyclodextrin, microencapsulation, drug release.

Hossein HOSSEINI, Sepideh KETABI,  
Reza Rajaie KHORASANI and  
Farrokh Roya NIKMARAM

Interaction of selected amino acids in active site of BAX protein with two derivatives of syringic acid as an anti-cancer initiating process: A molecular simulation study



DOI: 10.33224/rch.2021.66.6.06  
*Rev. Roum. Chim.*, 2021, 66(6), 537-545

**Key words:** BAX protein, syringic acid, Monte Carlo simulation, DFT, association free energy.

Aysel BERKKAN and Onur Kenan ULUTAŞ

Analytical performance and validation of head space-gas chromatography-flame ionization detector (HS-GC-FID) method for alcohol content and evaluation of efficiency and possible toxicity of hand sanitizers at the time of pandemic

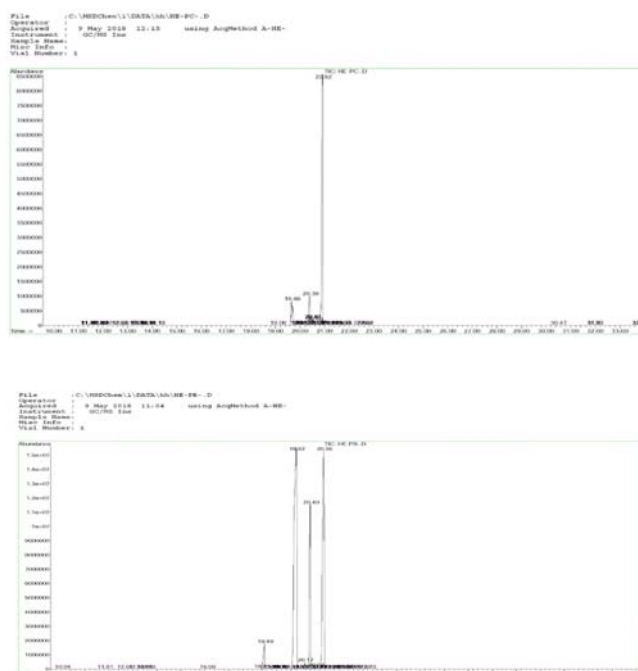


DOI: 10.33224/rch.2021.66.6.07  
*Rev. Roum. Chim.*, 2021, 66(6), 547-556

**Key words:** HS-GC-FID, hand sanitizers, alcohol content, analytical performance and validation, COVID-19 pandemic.

**Hanene GHAZGHAZI, Badiia ESSGHAIER, Ichrak CHARFI, Meriem ELALOUI, Moufida A. OUESLATI, Ridha BEN SALEM, Ghayth RIGANE and Touhami RZIGUI**

Screening for biological activities of essentials oil profiles (GC-FID) and ethanolic extracts from *Pinus brutia* (Ten) and *Pinus canariensis* (C. Smith)

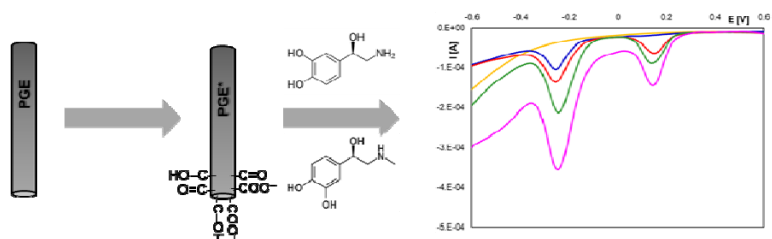


DOI: 10.33224/rch.2021.66.6.08  
Rev. Roum. Chim., 2021, 66(6), 557-565

**Key words:** Essential oil, ethanolic extract, antimicrobial, antifungal, *Pinus brutia*, *Pinus canariensis*, food.

**Mihaela BULEANDRĂ, Anton Alexandru CIUCU, Iulia Gabriela DAVID, Dana Elena POPA, Adela Magdalena CIOBANU and Cristian Dragoș ȘTEFĂNESCU**

Simultaneous determination of epinephrine and norepinephrine by electrochemical reduction at the pre-treated pencil graphite electrode

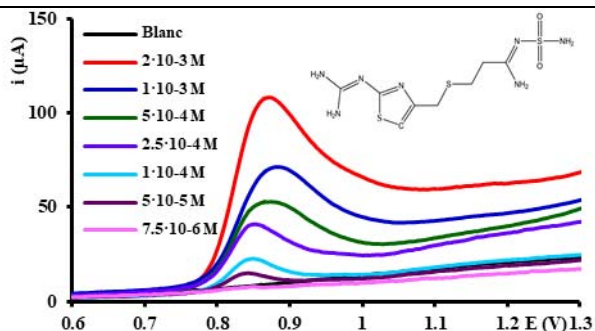


DOI: 10.33224/rch.2021.66.6.09  
Rev. Roum. Chim., 2021, 66(6), 567-572

**Key words:** disposable sensor, catecholamines, voltammetry, biological samples.

**Iulia Gabriela DAVID, Marian Gabriel GĂSNAC, Mihaela BULEANDRĂ and Dana Elena POPA**

Simple and fast square wave voltammetric method for histamine H2-receptor antagonist famotidine quantification



DOI: 10.33224/rch.2021.66.6.10  
Rev. Roum. Chim., 2021, 66(6), 573-578

**Key words:** famotidine, square wave voltammetry, pencil graphite electrode.

