



REVISTA DE CHIMIE

Chemistry Sciences

Chemical and Biochemical Engineering

Environmental Chemistry and Engineering

Chemistry Application in Food, Nutrition, Agriculture

Medical and Pharmaceutical Chemistry

Materials

APRIL 2022

Print ISSN: 0034-7752 / Online ISSN: 2668-8212

<https://revistadechimie.ro>

<https://doi.org/10.37358/Rev.Chim.1949>



**REVISTA DE CHIMIE FOUNDED IN 1949
BUCURESTI ROMANIA**

EDITORIAL BOARD

**Editor-in-Chief:
Gabriel Lucian RADU**

Politehnica University of Bucharest, Romania

**Editorial Manager:
Ion ANDRONACHE**

Revista de Chimie SRL, Bucharest, Romania

EDITORS:

Ionel MANGALAGIU – Chemistry Sciences
Alexandru Ioan Cuza University, Iasi, Romania

Irinel Adriana BADEA – Chemistry Sciences
University of Bucharest, Romania

Costin Sorin BILDEA – Chemical and Biochemical Engineering
Politehnica University of Bucharest, Romania

Ioana FECHETE - Chemical and Biochemical Engineering
Université de Technologie de Troyes, France

Gheorghe NECHIFOR – Environmental Chemistry and Engineering
Politehnica University of Bucharest, Romania

Simona Gabriela BUNGAU - Environmental Chemistry and Engineering
University of Oradea, Romania

Adela PINTEA - Chemistry Application in Food, Nutrition, Agriculture
University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania

Gabriela RAPEANU - Chemistry Application in Food, Nutrition, Agriculture
Dunarea de Jos University of Galati, Romania

Gabriel Ovidiu BRATU - Medical and Pharmaceutical Chemistry
Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Camelia DIACONU - Medical and Pharmaceutical Chemistry
Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Maria CAZACU – Materials
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

Iulian ANTONIAC – Materials
Politehnica University of Bucharest, Romania

ASOCIATE EDITORS:

Lotfi ALEYA

Université de Franche-Comté, France

Patrick Da COSTA

Sorbonne Université, France

Remi CHAUVIN

University of Toulouse, France
Huaqiao University, Xiamen Campus, China

Giuseppe GATTUSO

University of Messina, Italy

Andrei JITIANU

Lehman College of The City University of New York, USA

Piotr KURCOK

Centre of Polymer and Carbon Materials Polish Academy of Sciences, Poland

Bouchta SAHRAOUI

University of Angers, UFR Sciences
Institute of Sciences and Molecular Technologies of Angers, France

Yanzhong ZHANG

College of Chemistry, Chemical Engineering & Biotechnology Donghua University, China

EDITORIAL ADVISORY BOARD:

Sanda ANDREI

University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

Narcis BARSAN

Vasile Alecsandri University of Bacau, Romania

Ede BODOKI

Iuliu Hatieganu University of Medicine & Pharmacy, Cluj-Napoca, Romania

Andreea BUNEA

University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

Ioan CALINESCU

Politehnica University of Bucharest, Romania

Simona CAPRARESCU

Politehnica University of Bucharest, Romania

Otilia CINTEZA

University of Bucharest, Romania

Simona CLICHICI

University of Medicine and Pharmacy, Cluj-Napoca, Romania

Carolina CONSTANTIN

Victor Babes National Institute, Bucharest, Romania

Lucian Octav COPOLOVICI

Aurel Vlaicu University, Arad, Romania

Calin Cristian CORMOS

Babeş-Bolyai University, Cluj Napoca, Romania

Dana CULITA

Institute of Physical Chemistry Ilie Murgulescu, Bucharest, Romania

Andrei DANET

University of Bucharest, Romania

Iulia Gabriela DAVID

University of Bucharest, Romania

Gyorgy DEAK

INCDPM, Bucharest, Romania

Kamel EARAR

Dunarea de Jos University of Galati, Romania

Petru FILIP

C. D. Nenitescu Institute of Organic Chemistry, Bucharest, Romania

Anca Irina GALACTION

University of Medicine and Pharmacy Grigore T. Popa, Iasi, Romania

Maria HARJA

Technical University Gheorghe Asachi, Iasi, Romania

Cosmin JINESCU

Politehnica University of Bucharest, Romania

Vasile LAVRIC

Politehnica University of Bucharest, Romania

Simona Carmen LITESCU

National Institute for Biological Sciences, Bucharest, Romania

Cristian MATEI

Politehnica University of Bucharest, Romania

Florin MICULESCU

Politehnica University of Bucharest, Romania

Maria MOHORA

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Lucia MUTIHAC

University of Bucharest, Romania

Denisa NISTOR

Vasile Alecsandri University of Bacau, Romania

Octavian OLARU

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Eliza OPREA

University of Bucharest, Romania

Ovidiu OPREA

Politehnica University of Bucharest, Romania

Cristian Valeriu PIRVU
Politehnica University of Bucharest, Romania

Ileana RAU
Politehnica University of Bucharest, Romania

Sonia SOCACI
University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

Bogdan SOCEA
Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Irina STOIAN
Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Emanuel VAMANU
University of Agronomical Sciences and Veterinary Medicine, Bucharest, Romania

Camelia VIZIREANU
Dunarea de Jos University of Galati, Romania

Laurian VLASE
University of Medicine and Pharmacy Iuliu Hatieganu, Cluj Napoca, Romania

Maria ZAHARESCU
Institute of Physical Chemistry Ilie Murgulescu, Bucharest, Romania
Romanian Academy

PUBLISHER STAFF:

Alice CRISTEA – Manager
Elena ANDRONACHE – IT
Monica BALUTA – Editing
Iuliana GHITA – Accounting

Impact factor 2019: 1.755

CONTENTS
2 / 2022

RUXANDRA-MARIA ILIE-MIHAI, RALUCA-IOANA STEFAN-VAN STADEN, JACOBUS (KOOS) FREDERICK VAN STADEN, HASSAN Y. ABOUL-ENEIN Recent Electrochemical Methods Proposed for the Detection of Hepatitis C Virus. A Minireview.....	1
GHEORGHE DOBRA, SANTIAGO GARCIA-GRANDA, ADINA NEGREA, MIHAELA CIOPEC, NICOLETA NEMES, HULKA IOSIF, PETRU NEGREA, NARCIS DUTEAN, SORIN ILIEV, LUCIAN COTET, ALINA BOIANGIU, LAURENTIU FILIPESCU Silver Adsorption on the Low Temperature Activated Alumina Grades. I. Adsorption Capacity and Kinetics	17
GRZEGORZ PRZYDATEK, NARCIS BARSAN, ARTUR ŚWIGUT Study of Biogas Composition on Operational and Non-Operational Landfill Sites from Poland.....	33
GIOVANNI CHAVES-BEDOYA, LUZ YINETH ORTIZ-ROJAS, NAFTALI OCHOA-ALEJO Introduction of Defence Response in Papaya (Carica papaya) Against PRSV Through Organic and Inorganic Chemicals as Inducers.....	40
JIACHENG FAN, ZHANQING QU, TIANKUI GUO, NING QI, MING CHEN, XIAOQIANG LIU, JIWEI WANG Evaluation on the Basis and Application Performance of a Modified Surface Active Oil-displacing Agent.....	50
VISHNUJA UMAPATHY, BHASKAR GOVINDASWAMY BHAVANI Pocket Milling of AISI 1045 Steel using Abrasive Water Jet Machining by Varying Contours.....	62
WEI WEI LIN, MIAO SHAN TANG, JIAN HUA CHEN, YANG HUANG, QIAO JING LIN, YONG DONG HUANG Preparation and Characterization of Polyethyleneimine/Molybdenum Disulfide Composite for Hexavalent Chromium Removal from Aqueous Systems.....	75
WENXUAN LI, XIUPENG MA, XIAOYAN LENG, YINGFEI HOU Preparation of Porous Coke by Microwave Pyrolysis of Oily Sludge: Optimization Through Response Surface Methodology and TG-FTIR Analysis.....	90
DE-LI NIU, KAI BAO, XUAN-YE HUANG, MAO-JUAN BAI, JUN WAN Preparation of Co-Doped Graphitic Carbon Nitride and Degradation of MB by Heterogeneous Photo-Fenton-like Reaction System.....	102