

# ROMANIAN JOURNAL OF ECOLOGY & ENVIRONMENTAL CHEMISTRY

BUCHAREST, ROMANIA

## EDITORIAL ADVISORY BOARD

**Asher BRENNER**

Ben-Gurion University of the Negev (BGU), Israel

**Costel BUMBAC**

National R&D Institute for Industrial Ecology, Romania

**Alina BUTU**

National R&D Institute for Biological Sciences, Romania

**Mariana Carmen CHIFIRIUC**

University of Bucharest, Romania

**Lucian CONSTANTIN**

National R&D Institute for Industrial Ecology, Romania

**Liliana CRUCERU**

National R&D Institute for Industrial Ecology, Romania

**Andrei Florin DANET**

University of Bucharest, Romania

**Laurentiu DINU**

National R&D Institute for Industrial Ecology, Romania

**Timothy EHLINGER**

University of Wisconsin - Milwaukee, U.S.A.

**Liviu-Daniel GALATCHI**

Ovidius University of Constanta, Romania

**Lucian Puiu GEORGESCU**

“Dunarea de Jos” University of Galati

**Stefania GHEORGHE**

National R&D Institute for Industrial Ecology, Romania

**Eugen GHEORGIU**

International Centre of Biodynamics, Romania

**Helmut KROISS**

Vienna University of Technology, Institute for Water  
Quality and Resource Management, Austria

**Lidia KIM**

National R&D Institute for Industrial Ecology, Romania

**Stanislaw KOTER**

Nicolaus Copernicus University in Torun, Poland

**Caner ZANBAK**

TCMA, Turke

**Tudor LUPASCU**

Institute for Chemistry, Academy of Science Moldova

**Jean Louis MARTY**

University of Perpignan via Domitia, France

**Grigore MIHAESCU**

University of Bucharest, Romania

**Gheorghe NECHIFOR**

Politehnica University of Bucharest, Romania

**Mihai NITA-LAZAR**

National R&D Institute for Industrial Ecology, Romania

**Cristina ORBECI**

Politehnica University of Bucharest, Romania

**Luoana Florentina PASCU**

INCD ECOIND, Romania

**Elefteria PSILLAKIS**

Technical University of Crete, Greece

**Elena Cristina RADA**

University of Trento, Italy / Insubria University, Varese, Italy

**Jaroslav SLOBODNIK**

Environmental Institute of Kos, Slovakia

**Jacobus (Koos) F van STADEN**

INCD EMC, Romania

**Andrea-Cristina STAICU**

University of Bucharest, Romania

**Miruna STAN**

University of Bucharest, Romania

**Michaela Dina STANESCU**

Society of Chemistry, Bucharest, Romania

**Daniela Simina STEFAN**

Politehnica University of Bucharest, Romania

**Ivana TEODOROVIC**

University of Novi Sad, Serbia

**Giuliano TEVI**

University of Ecology Bucharest, Romania

**Irina LUCACIU**

National R&D Institute for Industrial Ecology, Romania

ROMANIAN JOURNAL OF ECOLOGY & ENVIRONMENTAL CHEMISTRY

Editor-in-Chief: Dr. Chem. Luoana Florentina PASCU  
Deputy Editor in Chief: Dr. Eng. Lidia KIM  
Manager Editor: Dr. Eng. Gabriela Geanina VASILE  
Associate Editors: Dr. Biol. Olga TIRON  
Dr. Biochem. Stefania GHEORGH  
Dr. Ecol. Catalina STOICA  
Technical Editor: Eng. Gheorghe-Cristian SERBANESCU

The journal has a biannual publication. OPEN ACCES under CC BY 5.0 license

Copyright ROMANIAN JOURNAL OF ECOLOGY & ENVIRONMENTAL CHEMISTRY

Address: 57-73 Drumul Podu Dambovitei Street, Bucharest, 060652, ROMANIA

Tel: +4.021.410.03.77 / Fax: +4.021.410.05.75

E-mail: office@rjeec.ro

Journal site: www.rjeec.ro

ISSN online 2668-5418, ISSN-L 2668-5418

<https://doi.org/10.21698/rjeec>

**Romanian Journal of Ecology & Environmental Chemistry, volume 5, number 2, 2023**

Hardcopy and online magazine: 21.12.2023

Printed by Estfalia Publishing House