

## EDITORIAL



**Hongxing Dai** is the Co-Editor-in-Chief, The Global Environmental Engineers, and Professor of Environmental Catalysis in the Department of Chemistry and Chemical Engineering, College of Environmental and Energy Engineering, Beijing University of Technology, China. Prof. Dai obtained his Bachelor Degree in the Department of Chemical Engineering at Nanjing University of Technology in 1987, Master Degree in the Department of Chemistry and Environmental Engineering in 1990, and Ph.D. Degree in the Department of Chemistry at Hong Kong Baptist University in 2001. During 2001~2003, he has been doing postdoctoral research work in the Department of Chemistry at Hong Kong Baptist University (Supervisors: Profs. C.T. Au and C.F. Ng), Department of Chemical Engineering at University of California at Berkeley, and Chemical Sciences Divisions at Lawrence Berkeley National Laboratory (Supervisors: Profs. A.T. Bell and E. Iglesia). Prof. Dai ever worked in the Department of Applied Chemistry at Beijing University of Chemical Technology during 1990~1998. After completion of postdoctoral work at UC Berkeley, he joined as a full professor the Department of Chemistry and Chemical Engineering, College of Environmental and Energy Engineering, Beijing University of Technology. Prof. Dai is now the head of the Department of Chemistry and Chemical Engineering, and the chairman of Key Construction Discipline of Chemical Engineering and Technology.

Since 1987, Professor Dai has been working on the following five areas: (i) Preparation, characterization, and catalytic hydrocarbon conversion; (ii) Developments of three-way catalytic converters for automotive exhaust removal; (iii) Catalytic decomposition of nitrogen oxides and their selective catalytic reduction; (iv) Total oxidation of carbon monoxide and methane over catalysts such as oxygen-deficient perovskite-type oxides and halo-oxides, metal nitrides and oxynitrides, supported metal oxides; and (v) Controlled synthesis, characterization, and environmental applications in heterogeneous catalysis and photocatalysis of macro-, meso-, and microporous materials. In the past 10 years, he has been working in the areas of the oxidative dehydrogenation of light hydrocarbons over porous materials-supported transition-metal oxides, catalytic combustion of volatile organic compounds over specifically morphological transition-metal oxides, noble metal oxides or mixed oxides supported on porous materials, and photocatalytic degradation of organics-containing wastewater and organic dyes. Up to now, Prof. Dai has published over 160 papers in the internationally renowned journals and 4 books or chapters, and obtained authorized 58 national patents and 2 U.S. patents.

He has given many keynote and invited lectures at various national and international conferences worldwide. Professor Dai continues to serve as the editorial board members of several national and international journals. He is a member of The Catalysis Society of China and Environmental Catalysis and Environmental Materials Committee. He has received some prestigious honors and national awards from various professional societies and organizations due to his research contributions.

**The Global Environmental Engineers** is an international refereed journal of scientific research providing access to quality information and valuable input covering all areas of environment related fields that apply to the science and engineering communities. Our aim is to provide a platform for the scientists, researchers and engineers to understand relationship and interaction between engineering and environmental science. Our areas of interest are (but not limited to): Air pollution, Environmental biology, Environmental policy, Environmental sensors, Environmental sustainability, Ozone depletion, Waste management studies, Water pollution, Water supply and treatment, Environmental risk assessment and management. We welcome high quality original articles and reviewed paper in aforementioned fields.

The first paper of this inaugural issue is the Diagnosis and Prognosis of the Hearing Impairment Risk by Gabriel-Dragoş Vasilescu. Dr. Vasilescu provides a methodological approach on the analysis and statistical and probabilistic assessment of the hearing impairment risk based on the hazards quantified as risk predictors, and has established the modalities for assessing the caution limits related to the acceptability ranges. In this paper, the author adopts a statistical approach that is based on the rational quantification of what exists and can be observed; whereas the probabilistic part of this fact actually represents an extrapolation to what it can be reasonably deduced from these statistics of hearing impairment occurrence probability. The mentioned project is of significance, entailing

the increase in occupational health and safety level and ensuring sustainable environmental quality and comfort at workplaces.

In the second paper, Gabriel Vasilescu *et al.* highlights the Innovative Methodological Instrument for Quantification of Professional Risk Specific to Complex Systems of Work. On the basis of a thorough knowledge of some interdisciplinary concepts from various fields related to systems security engineering, the authors of this paper presents nice research work on estimating and assessing occupational risks to secure specific activities in the presence of hazards in industrial work systems.

The third paper presented by Gabriel Vasilescu and co-workers reports the Management of Security Risk in the Energy Field. The authors propose an integrated approach for the efficient internal auditing of OHS applicable to the work systems met in hydrotechnical and hydroelectrical operations, which is in compliance with the European and national requirements aiming at increasing OHS level for companies involved in water construction works. This paper also provides sustainability to the related environment.

The final paper in this volume is on the DNA Contents in Soil Contaminated with Heavy Metals by Agnieszka Wolińska *et al.* In this paper, the authors select a soil from an urban area of the Silesia Region (SW Poland) as target material and show how industrial activities influence the soil quality in terms of soil DNA quality and soil properties. The characteristics (texture, moisture, pH, redox potential, and total carbon content) of the soil material are estimated, the selected heavy metals (e.g., Pb, Cd, Zn, Cr, Fe, and Cu) are determined, the DNA is isolated from the soil, and DNA concentrations and microorganisms are analyzed. The results of this study show that there are still some metal-resistant microorganisms able to sustain soil activity, although the soil was heavily contaminated by the heavy metals. Furthermore, the absence of these organisms in the NCBI database encourages further investigations on the identification of new organisms that may be useful in the research of metal resistance as well as soil reclamation and remediation.

This Journal will publish reviews, original articles, and letters related to the field of environment. **Avanti Publisher** will also be showcased, since without their strong motivation and financial commitment, much of what has been accomplished would not have been possible.

For this first issue of the Journal, it is indeed a great pleasure to be able to publish original research articles by the authors from Romania and Poland. This new Journal will undoubtedly serve as a continuous stimulus to basic and applied research in years to come. It is an honor and privilege for me to contribute to its launch and early development.

I am looking forward to welcoming you to our community and launching our first issue containing original research articles in the area of environmental research.

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