

Editorial

On the Establishment of a New Journal on the Topic “Catalysis and Green Chemistry”

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Received: 14 May 2023; **Accepted:** 15 May 2023

I am pleased to announce the launch of the new journal, Universal Journal of Green Chemistry (UJGC), which will publish original research papers and reviews on hot topics in this field. The UJGC enriches the increasing family of Universal Wiser Publisher.

These days, “green” (environmentally friendly) chemistry has become one of the most important segments in the chemical discipline. This is the result of several factors, which have emerged in recent decades. The first warnings were the observation on the increased extent of global warming, and the depletion of the fossils (oil and gas) that situation got worse by the war focal points over the World. Another problem is the thinning of the ozone layer, which provides a protective cover from harmful UV radiation. The valorization of water reservoirs is also an important issue in the extremist weather experienced worldwide.

It was then recognized by the governments of more developed countries of the world that the emissions of industrial production can no longer be allowed to continue. Unfortunately, there are still developing countries, where no satisfactory attention is paid to decreasing the emissions which endanger the health of living organisms, and which damage nature and the environment. Reducing or preventing waste products in industry, especially chemical industry, including the monomer, plastics, surfactant, pharmaceutical, and fine chemical industries, is also an important task. A threatening question, is how long the oil (petroleum) based resources of the world will last. The alternative (renewable) material and energy sources are still not as competitive as they need to be. The economic recession has also had a significant impact on the need for industries to use less and cheaper raw materials and energy, as well as to increase the efficiency and the output of their processes. The key towards the realization of these tasks involves the application of atomic efficient transformations and green solvents, the utilization of catalytic reactions, the avoidance of high temperatures and pressures, and the optimization of reaction conditions. All these are the tools of so-called sustainable development.

UJGC publishes all relevant new findings, such as green accomplishments of known organic chemical reactions, elaboration of new methods and catalysts allowing chemo- diastereo- and enantioselective transformations, the use of chiral catalysts in asymmetric syntheses, phase transfer catalysis, biocatalysis, development of existing procedures, replacement of solvents to greener ones, application of ionic liquids, supercritical fluids and water as the solvent, solvent-free realizations, microwave-assisted and sonochemical transformations, and utilization of flow chemistry. Comparative case studies on different realizations, the recirculation and reuse of catalysts and solvents, along with the utilization of biomass as a source for chemicals are also awaited. Matching topic is the environmentally-friendly synthesis of various heterocycles, including *N*-, *O*- and *P*-heterocycles, multicomponent reactions, and the optimization of reaction conditions. Purification and remediation of water is also an important issue. The elaboration of green analytical methods is also a field of interest.

The introductory issue of UJGC includes typical topics from the point of view of green chemistry:

1. Recent Topics of Laccase Focused on Chemical Reactions and Applications
<https://ojs.wiserpub.com/index.php/UJGC/article/view/1901>
2. A Comprehensive Review of Nanoparticles Induced Stress and Toxicity in Plants
<https://ojs.wiserpub.com/index.php/UJGC/article/view/1946>

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DOI: <https://doi.org/10.37256/ujgc.1220232231>

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3. A Novel Carbon Dioxide Desorption Phenomena using Potassium Acetate Aqueous Solution
<https://ojs.wiserpub.com/index.php/UJGC/article/view/2166>
4. Mechanochemical Organic Synthesis - Powerful Tool in Greener Chemistry
<https://ojs.wiserpub.com/index.php/UJGC/article/view/2176>

The Editors and members of the Editorial Board along with the management of UJGC hope that the inaugural issue of this new journal will attract your interest, and that you will be our regular reader. Moreover, we expect original papers and reviews on hot topics to be published in regularly appearing issues. Thematic issues may also be considered.