



GAJANAN SAMPATRAO GHODAKE

Dongguk University-Seoul, Republic of
Korea

Integrating green chemistry into materials and medicinal chemistry for a sustainable future

Abstract:

Green chemistry principles are essential in materials and medicinal chemistry for promoting sustainability and reducing environmental impact. In materials chemistry, these principles encourage the use of biodegradable materials, renewable resources, and energy-efficient synthesis methods, enhancing safety and economic viability. In medicinal chemistry, green chemistry guides the creation of safer drugs by using non-toxic solvents, efficient catalytic processes, and sustainable synthesis pathways. This approach minimizes the environmental footprint of pharmaceuticals from synthesis to disposal. The implementation of green chemistry significantly improves health outcomes by reducing exposure to hazardous chemicals and decreases environmental pollution, contributing to a healthier planet and society. Overall, green chemistry drives innovation and efficiency, fostering the development of safer, more sustainable materials and medicines for the benefit of both human health and the environment.

Biography

Gajanan Ghodake is an eminent faculty member in the Department of Biological and Environmental Science at Dongguk University, Seoul, South Korea. He holds a PhD in Biochemistry from Shivaji University, Kolhapur, India. With over 15 years of research experience and 10 years of university-level teaching, he is renowned for his significant contributions to both research and academia. Dr. Ghodake has authored over 130 articles in international journals, covering diverse areas such as materials science, analytical technologies, and biomedical research. His work has profoundly impacted several interdisciplinary fields, reflected in his impressive h-index of approximately 45, underscoring the high citation and influence of his research.