

# Graphene Innovation and Technology

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Welcome to the inaugural issue of *Graphene Innovation and Technology*, a journal dedicated to the cutting-edge advancements and transformative potential of graphene. As we launch this new platform, dedicated to the forefront of graphene research and its groundbreaking applications, it is only fitting that we take a moment to reflect on the extraordinary journey of graphene over the past twenty years—a journey that has been nothing short of revolutionary.

Twenty years ago, in 2004, physicists Andre Geim and Konstantin Novoselov made the groundbreaking discovery of graphene, a single layer of carbon atoms arranged in a two-dimensional honeycomb lattice. This seemingly simple material has since unveiled an astonishing array of extraordinary properties, making it one of the most studied and celebrated substances in modern science.

As we celebrate these twenty years of discovery, we are also keenly aware of the challenges that lie ahead. Translating graphene successes into practical, scalable technologies remains a formidable task. Issues such as cost-effective production, the quality of graphene materials, integration into existing technologies, and addressing environmental and safety concerns are crucial for the future of emerging graphene industry. Our journal will be a platform for addressing these challenges, fostering dialogue, and sharing innovative solutions. As we embark on this new chapter with *Graphene Innovation and Technology*, we are excited to continue exploring the boundless possibilities of graphene and to contribute to the ongoing dialogue that will shape the future of this remarkable material.

Our aim is to collect collection of broad range of submissions including mix of full research papers, communication papers, review papers, technical notes, industry reports, perspectives etc. that highlight the most significant achievements and emerging trends in graphene research innovation and translation. Journal topics covered in the journal include, but are not limited to:

- Synthesis, functionalization, processing, and manufacturing
- Properties, characterizations, and related applications
- Development & validation new characterization and quality control methods
- Standardization and the quality issues
- Composite, hybrids, heterostructures synthesis and applications.
- Graphene additives and value-add products
- Protective and functional coatings
- Energy storage, harvesting, conversion and production.
- Clean water and environmental remediation
- Sensors, antennas, and wearable electronics
- Inks, printing technologies and their applications
- Electronic and optical devices and their applications
- Construction industry applications (concrete etc)
- Additive manufacturing
- Biomedical applications
- Other graphene applications, new products, and translation
- Industry products performance trials and testings
- Toxicity and environmental risks
- Regulatory and graphene industry related issues

Our editorial board is comprised of distinguished scientists who have generously committed their expertise and support to this journal. I am deeply grateful for their enthusiastic involvement as we embark on this meaningful endeavour together. While we anticipate the growth of our editorial board to meet emerging challenges, it is my privilege to introduce our current members: Krzysztof Koziol, Cranfield University; Baohua Jia, RMIT, Hongwei Zhu, Tsinghua University; Mainak Majumder, Monash University, Jun Ma, University of South Australia, Burcu Saner Okan, Sabanci University; Jingquan Liu, Qingdao University, Hiroto Nishihara, Tohoku University,



Guqiao Ding, Chinese Academy of Sciences (CAS), Tetsuya Kida, Kumamoto University; Yulin Zhong, Griffith University, Felice Torrisi, Imperial College London, Lucia Gemma Delogu, University of Padua, TaeYoung Kim, Gachon University; Ioannis Kotsiopoulos, Khalifa University; Kishor Kumar Sadasivuni, Qatar University; Ali Shaygan Nia, Technische Universität Dresden; Tran Van Khai, Ho Chi Minh City University of Technology and Pei Lay Yap, Tran Tung, University of Adelaide. The profound expertise of our editorial board members ensures that every manuscript receives the rigorous evaluation and attention it deserves.

In conclusion, I wish to express my unwavering confidence that, collectively, our authors, editorial board members, reviewers, the Scilight Press team, and our young and enthusiastic editorial board members from across the globe will propel *Graphene Innovation and Technology* journal to the frontline of scientific research.

Finally, our Journal team would like to thank to all contributors and readers for joining us on this journey. We look forward to sharing the latest discoveries and developments with you and to celebrating the next twenty years of graphene innovation.