

InfoMat: A cross-field exploration of information technology and materials science

As our modern society continuously embraces the captivating concepts of automation, artificial intelligence, virtual/augmented reality, and machine learning, information technology has extensively influenced all aspects of our personal, professional, and social lives. Information technology will continue to transform the world for decades to come. However, the innovation of information technology not only relies on the development of sophisticated algorithms and programming but also requires novel materials and high-performance devices to achieve interactions between humans and machines. With microprocessors and other key components shrinking down to nanoscale, electronic devices have fundamentally altered our communication and working patterns, ushering in a new era of the “Internet of Things.” However, current microelectronic technologies still need to overcome the physical limitations of traditional semiconductor materials to keep “Moore's law” alive. Researchers from different fields have realized that developing novel and reliable materials is essential to improving computing capability and device portability and functionality while reducing energy consumption. The unremitting efforts of cross-field research works have broadened the academic horizon and brought together materials scientists, chemists, applied and theoretical physicists, and electrical engineers, designing new material paradigms and state-of-the-art manufacturing methods or reviving present materials for brand-new applications for next-generation information technology.

This new journal is copublished by Wiley and the University of Electronic Science and Technology of China. *InfoMat* will address the growing scientific interests in materials with unique electrical, optical, and magnetic properties and the application of these new materials in the rapid development of information technology. The journal will serve as a high-quality platform for researchers working in a wide variety of scientific areas with a common interest in improving information technology and will dovetail materials and information technologies to propel the fast development of this emerging field.

The smart phone, acting as a personal information device, is an ideal example to illustrate the coverage of *InfoMat*. The latest models of smart phones, from what you can touch and see to the interior structure, are predominantly equipped with a high-resolution display panel, various intricate photodetectors, a stereo sounding system, a precise touch sensor, a high-speed wireless module, a high-performance chip, a large-storage memory driver, and a reliable lithium-ion battery. The full range of materials includes organic and inorganic materials, with different dimensions and morphologies, associated with the crucial electrical, optical, and magnetic components that come into the main focus of *InfoMat*. Moreover, the mobile device is progressively upgrading, and it will come as no surprise that more and more biorelated sensors are being integrated into mobile devices to monitor the healthcare of human beings. Consequently, *InfoMat* also welcomes research works concerning the design of novel materials to detect biosignals.

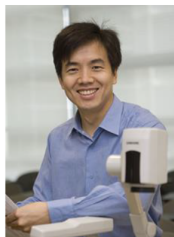
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A group of experienced scientists crossing top-notch world research groups has teamed up as the gatekeepers of *InfoMat*. The Editor-in-Chief is Prof. Yanrong Li, the director of the State Key Laboratory of Electronic Thin Films (UESTC), who is responsible for the whole publication process of *InfoMat*. Assisting the Editor-in-Chief to expediate the peer review process, five Associate Editors are on board, including Prof. Qihua Xiong from Nanyang Technological University (Singapore), Prof. Carole Diederichs



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from Sorbonne University (France), Prof. Roberto Morandotti from Institut National de la Recherche Scientifique (Canada), Prof. Jianhua Hao from Hong Kong Polytechnic University (China), and Prof. Yichun Liu from Northeast Normal University (China). Moreover, veteran editors of Wiley, Dr. Jose Oliveira, Dr. Daping Zhang, and Dr. Guangchen Xu, are working in consulting positions to guide the editorial team of *InfoMat* in adhering to the high publishing standards of Wiley. We firmly believe that the diversity of insights and expertise offered by this elite editorial team will present our authors with the most important, insightful, and cutting-edge research achievements and provide our authors and reviewers a highly efficient peer review and post-acceptance processes.

Ultimately, it is our confident belief that, with you as our passionate readers, resourceful authors, critical commentators, and reviewers, *InfoMat* will evolve into a leading open-access journal in the cross-field of information technology and materials science.

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