
Editorial

Sustainable Polymer & Energy: A New Open-Access Journal to Share Your Research on Sustainable Polymer and Advanced Energy Materials

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It's been more than 100 years since Staudinger first published the concept of polymerization in 1920. Polymers have indeed revolutionized our lives ever since, and nowadays play a pivotal role in managing the energy-environment nexus which is key to a sustainable future [1]. Although synthetic polymers are indispensable in diverse applications, our environment is inundated with pollution from plastic manufacturing and mismanaged waste. The plastics economy is in urgent need of sustainable approaches. Sustainable polymers are materials derived from renewable, recycled or other lower-carbon feedstocks, which at the end of life are managed in environmentally responsible ways through recycling and biodegradation [2]. This exactly outlines the background and the prime aim of the new open-access journal *Sustainable Polymer and Energy* (SPE) supported by the SCIEpublish platform.

Achieving a future of polymer sustainability would push us to move beyond the qualitative use of the 12PGC (12 Principles of Green Chemistry) to a portfolio of more metrics [3]. In this regard, we appreciate the increased use of Life Cycle Assessment (LCA), which is both dramatically more thorough and difficult to deploy, and also consider it as an important topic [3]. Towards the sustainable energy end, we are interested in key applications of polymers in new types of energy devices and show how polymers can be used to improve the performance of green energy devices and enable new concepts for the conversion and storage of energy.

I have led groups both at Sun Yat-sen University (SYSU, Guangzhou, China) and at Henan Provincial Academy of Sciences (Zhengzhou, China) focusing on the polymer synthesis from carbon dioxide (CO₂) and new polymers used for secondary batteries in the past 20 years, and our work has gained domestic and international reputations. In addition to scientific achievements, we put an equal emphasis on technology transfer and supporting innovation entrepreneurship. The joint establishment of the Research Institute of Lecron Carbon Neutral Technology between SYSU and the Lecron Industrial Development Group in 2022 is a snapshot of our devotion to serving society with enabling technologies.

Communication fosters innovative ideas. We decide to launch the SPE journal in 2022 with the support from three world-renowned scientists serving as the co-editor-in-chief and associate editors. Prof. Jean Duhamel is the Director of the Institute for Polymer Research at the University of Waterloo and well recognized for his expertise in applying fluorescence techniques to characterize synthetic or biological macromolecules and their supramolecular assemblies at the nanoscale in solution and in the solid state. Dr. Yuning Li is a Chemical Engineering Professor at the University of Waterloo. His research puts an emphasis on the development of printable polymers and nanomaterials used in thin film transistors, photovoltaics, and batteries. Kenji Miyatake is a Professor at the University of Yamanashi. His research focuses on better-performing proton exchange membranes for fuel cells. He has found that sulfonated polyphenylene ionomer can give flexible membranes with high proton conductivity and excellent chemical stability.

We would like to call for all the authors from academia, industry and their companies, consultants, and industry associations to bring their knowledge, professional experience, and expertise to *Sustainable Polymer and Energy*.

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