Editorial

Exclusive Papers of the Editorial Board Members and Topical Advisory Panel Members of Catalysts in Section “Catalysis in Organic and Polymer Chemistry”

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Herein, I would like to provide an overview of this Special Issue, published in the Organic and Polymer Chemistry Section of Catalysts, comprising contributions from 18 of the journal’s Editorial Board Members. Following the successful publication of the Special
Issue “Exclusive Papers of the Editorial Board Members (EBMs) of Catalysts (https://www.mdpi.com/journal/catalysts/special_issues/feature_ebm; accessed on 31 December 2022)”, we considered the ways in which this Special anniversary Issue could be improved. We announced the Special Issue and accepted manuscripts related to a wide scope of topics in the fields of homogeneous catalysis, organometallic chemistry, and polymer chemistry, including topics such as sustainable polymers, polyolefin synthesis, chemical recycling and upcycling, biobased polymers, and related catalysis chemistry. This kind of collaboration among Board Members is beneficial not only for this journal, but also for establishing a network among researchers in this field. I am grateful to all of the co-Editors who contributed to this Special Issue.

This Special Issue consists of three review articles [1–3] and four scientific papers [4–7]. I. Stylianakis and A. Kolocouris provide an overview of gold chemistry in fundamental catalytic reactions with gold-activated \( \pi \)-systems, alkyln or allenyl moieties, and the regulation of their reactivity due to the presence of an electron-donating or -withdrawing group [1]. Mitsudome provides a topical review on transition metal phosphide nanoparticle catalysts as highly efficient and reusable heterogeneous catalysts for hydrogenation of nitriles to primary amines, reductive amination of carbonyl compounds, and biomass conversion [2]. These two review articles provide useful information for scientists in the field of catalysis. In their article, M. Kotora et al. discuss the synthesis of cationic [4], [5], and [6] azahelicenes with extended \( \pi \)-conjugated systems exhibiting fluorescence by Rh-catalyzed C–C bond cleavage/annulation of biphenylene with various aromatic nitriles [4], and Ohtaka et al. discuss selectivity in Pd-catalyzed coupling reactions [5]. W.H. Sun et al. and G. Solan et al. report on the synthesis and identification of cobalt complexes containing unsymmetrical 11-phenyl-1,2,3,7,8,9,10-heptacyclohepta[b]quinoline-4,6-dione, incorporating a para-phenyl substituted pyridine unit fused by both 6- and 7-membered carbocyclic rings and their uses as catalyst precursors for ethylene polymerization [6]. M. Ogasawara et al. discuss molybdenum-catalyzed enantioselective ring-closing metathesis/kinetic resolution of a series of racemic planar-chiral 1,1′-diallylferrocene derivatives [7]. In this Special Issue, we introduce bio-based long-chain aliphatic polyesters as alternatives to petroleum-based chemicals, prepared using the acyclic diene metathesis (ADMET) polymerization approach [4]. Recently, we have presented the remarkable effect of molecular weight on the promising mechanical properties, especially the tensile properties, of tensile elastic polyolefins [8].

Last year, the Editorial Board Members of “Catalysis in Organic and Polymer Chemistry” attended two related symposiums in Japan. As discussed in the previous symposium issue on the International Symposium on Catalysis and Fine Chemicals 2018 (C&FC2018) held in Bangkok [9], I believe that communication among researchers is important to facilitate the exchange of information in the field of chemistry and to strengthen academic relationships. KN also organized the Asian Polyolefin Workshop (APO2023) in Nara to share their research related to this field with other scholars (Figure 1, left). They also visited Beijing last May to meet the members of the Editorial Office with Prof. Wen-Hua Sun (Figure 1, right) [10]. These exchanges are beneficial to academic progress.
On behalf of my colleagues who worked on this Special Issue, I would like to express my sincere gratitude to those who contributed. I hope you enjoy this Special Issue.

Conflicts of Interest: The authors declare no conflicts of interest.

References

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