Special Issue of “Pillararenes”

Organic supramolecular chemistry based on synthetic macrocycles has been playing a crucial role in chemistry, biology, materials science, and environmental science. As a rapid developing class of synthetic macrocycles with intrinsic characteristics and excellent properties first discovered in 2008, pillararenes (or pillarenes) have become more and more attractive on account of their unique features and great potentials in fabricating functional materials and devices. The past seven years have witnessed the innovative efforts of Chinese supramolecular chemists in developing and revolutionizing pillararene chemistry, and in particular, in seeking the real applications of pillararenes in many research disciplines.

During the past three years, increasingly more Chinese scientists are joining this extremely attractive research field and Chinese chemists are becoming important leading players in pillararene chemistry. This special issue “Pillararenes” of Chinese Journal of Chemistry includes 12 original research presentations (eight Full Papers and four Communications) from Chinese universities and institutes that describe the typical representative cutting-edge research work in the Chinese pillararene community, and 2 review articles that provide in-depth overview on pillarene-involved metallic supramolecular nanostructures and in particular the comparison of pillararenes with other cavitands in terms of complex thermodynamics by Korean researchers. We strongly believe that such a collection of articles will help the international readers to recognize the latest advances of pillararene research in China and bring science and applications together on this unique class of synthetic macrocycles in the near future.

Finally, we would like to thank all the authors, reviewers and editorial board members for their fine contributions to make the special issue successful.