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Editorial

Polymers: An Interdisciplinary Open Access Journal

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During the last 60 years, the field of Macromolecular Science has broadened significantly and macromolecular or polymeric materials today constitute the most important class of materials. More than any other class of materials, polymers have revolutionized and enabled various technology platforms. The versatility in applications ranges from major structural components (the Airbus A380-800 or the Boeing 787 are built from 80% carbon fiber reinforced thermoset by volume) to high value added ingredients on the scale of grams as for use in lithography or drug delivery. Key to these systems is the direct control of the physical properties of the polymeric constituents, which in turn reflects fundamental advances in fields, including (i) polymerization methods, (ii) theory, simulation, and modeling, (iii) understanding of new physical phenomena, (iv) advances in characterization techniques, and (v) harnessing of self-assembly and biological strategies for producing complex multifunctional structures. Research activity in the field of Macromolecular Science continues to expand and attracts scientists from many other disciplines.

Recently, a panel of more than 50 high profile US polymer scientists identified five broad areas posing future technological challenges in which polymer science must play a crucial role: energy, sustainability, health care, security and informatics, defense and protection [1]. Within these areas, we find topics like (i) synthesis of biomacromolecules and complex polymer systems to build nanoscale objects, (ii) the development of novel hybrid materials and (iii) materials capable of self-replication and self-healing as well as (iv) materials showing advanced molecular recognition, and (v) novel processing methods for polymeric systems in thin films and bulk, to name a few. In order to fill these topics with life and confront future global challenges in the areas mentioned above, a close collaboration and exchange of knowledge between chemists, physicists, biologist, and engineers from experimental as well as theoretical groups is required.

This is where our new interdisciplinary open access journal *Polymers* comes into play. The journal shall be a platform for rapid exchange of knowledge that is freely available to everyone in the world. We

are aiming to ensure a quick, yet strict and rigorous peer-review process followed by rapid publication once a contribution has been accepted. The publishers of *Polymers* intend to foster open access distribution of knowledge and set an example for high quality publications in open access. While other publishers ask access fees (which continuously rise and lead to the fact that university libraries cancel their institutional subscriptions) and sometimes even coverage of costs for color images, MDPI charges moderate article processing fees. However, during the start-up period of *Polymers*, the first 100 articles or contributions published in the first 2 years are exempt from the processing fees.

On behalf of the Editorial Board, I invite you to submit your articles to *Polymers* and make the journal a renowned platform for interdisciplinary discussion and knowledge distribution in the field of Macromolecular Science of the next decade.

References

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