

Special Issue on
**Modulating Surface Properties of Thin Film Polymers for
Enhanced Performance**

CALL FOR PAPERS

Advances in thin film polymer technologies have seen widespread use in numerous industrial and commercial applications including electronics, water purification, and energy generation and storage. Investigations into the surface properties of these thin films including their electrical properties, morphological characteristics, chemical compatibilities, and surface energy promise improved methods of integrating polymer thin films in various systems. Application of surface modification techniques such as corona/plasma treatment, chemical etching, lithography, grafting, and use of inorganic nanoparticles and self-assembled monolayers has already led to improvements in thin film polymer applications for antifouling of membranes, corrosion resistant surfaces, improved heat transfer, enhanced water purification, and novel fuel cell technologies. However, the use of these novel materials is often limited by their mechanical durability, scalability, cost, and the limitations on their operational environment (i.e., temperature and pressure).

This special issue seeks to address the limitations of existing surface property modulating techniques especially those limiting the implementation of thin-film polymers from the more extreme environments often present in industrial applications. In addition, research into novel methods of surface property modulation is encouraged to increase the range of properties that researchers can exploit when working with polymers. Original research papers with high quality as well as reviews are especially welcome to discuss recent improvements in surface modification techniques and applications.

Potential topics include but are not limited to the following:

- ▶ Novel and standard methods to modify surface properties of thin film polymers
- ▶ Surface characterization of thin film polymers
- ▶ Design and study of practical applications of thin film polymers
- ▶ Development of new thin film polymer materials with enhanced mechanical durability
- ▶ Interfacial engineering using thin film polymers for application in energy-water systems, electronics, and photonics

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijps/mspt/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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