

# Preface

**S. K. Dhawan**

New Delhi, India

It is gratifying to note that **American Journal of Polymer Science** is finally coming out with the **Special issue on Conducting Polymers for Electronics**. Electronically conducting polymers also termed as Synthetic Metals are a new class of materials with interesting potential applications in number of technologies like EMI shielding, electrostatic charge dissipation, Smart corrosion preventive coatings, electrode material in batteries and super capacitors, organic light emitting diodes or organic photovoltaic devices for solar cell applications, stealth application in microwave range and sensors. Deliberate modification in the chemical and super molecular structure in the polymer matrix can lead to the formation of conducting polymer of high electronic conductivity which can be suitably designed for high tech applications. Particular attention is given to the unique advantage of conducting polymer composites for EMI shielding applications and smart coatings for corrosion prevention in marine environment besides studies on their characterization by different techniques like XRD, SEM, TEM, shielding attenuation in microwave range using network analyzer, Tafel plot and EIS measurements. With the rapid development of electronic industry, the demand for electronically conductive materials such as electromagnetic shielding materials for electrical and electronic industries has increased. The indiscriminate use of microwave devices has opened a new challenge in designing materials for controlling electromagnetic pollution. Development of efficient microwave absorbers in the form of sheets, composites and coatings can find aerospace applications. This has led to the investigations and subsequent utilization of conducting polymers for ESD and shielding of equipments from electromagnetic interference. The issue will have papers covering different aspects of conducting polymers for different applications and certainly readers will find the issue interesting.

I would also like to thank **Scientific & Academic Publishing** who offered me this opportunity to bring out Special issue on Conducting Polymers for Electronics.