Preface

The development of human civilization and modern life styles depend greatly on the materials science, technology, manufacture and processing. Since the large scale commercialization and application of synthetic polymers in 20th century, polymer materials have been used in almost all aspects of human lives, science, engineering, biotechnologies, medicine, space exploration, goods production and package etc. In the past two decades, nanoscale materials such as metallic and inorganic nanoparticles, polymer nanofibers and carbon nanotubes merged with synthetic and natural polymer materials and triggered new investigations and applications, all of these progresses need new material processing techniques, facilities and methodologies. Since polymer materials possess superb properties such as elasticity, toughness, flexibility, low density and high performance etc, polymer materials are the key engineering materials and widely used in the fields of economic development, scientific & technological innovation. Rapid economic and social developments in 21st Century for China require more advanced manufacturing and processing technologies, also since China has entered "The 12th 5-Year Plan", Chinese polymer material industry turned from manufacture to innovation step by step. With the new regulations and development for energy saving, CO_2 release, clean energy science and technologies, applications of nanomaterials, new standards for production technology and craft level are required. With future improving in scientific and technological levels, the development direction in high performance modification, functionalization, environment-friendly technologies for polymer and polymer composite materials will raise a whole world of research subject to the scientific community and engineering world.

"Advance Polymmer Processing Inter'l Forum 2012 (APPF2012)" organized by China Science Foundation, Qingdao Municipal Government and hosted by Qingdao University of Science and Technology were successfully opened and held in Qingdao, China from Sept. 28th to 30th, 2012. Many of those polymer materials and processing leading scientists, engineers, scholars and students have presented their recent research outcomes in this meeting and some of the papers from Japan, Taiwan and other areas have already been published in the joined conference proceedings. Majority of the papers from Chinese universities, research institutes were peered reviewed, selected and edited and will be separately published in the current proceedings.

Weimin Yang
Beijing Univercity of Chemical Technology

APPF 2012

Sponsor	National Natural Science Foundation of China
	Qingdao Municipal Government
	Qingdao University of Science & Technology
Co-sponsor	Shandong Provincial Key Laboratory Of Polymer Material Advanced Manufacturings Technology

Organizing Committees

Chairman: Wei-min Yang (Beijing Univercity of Chemical Technology)

Vice-chairman: Lian-xiang Ma (Qingdao Universtiyt of Science and Techology)
Chuan-sheng Wang(Qingdao Universtiyt of Science and Techology)

Members: Hiroshi Ito (Yamagata University)
Yoshinori Kanetoh(The University of Tokyo)
Han-Xiong Huang (South China University of Technology)
Kai-Ning Jiang (Dalian University of Technology)
Bing-Yan Jiang (Central South University)
Jing-Ping Qu (South China University of Technology)
Lin-Sheng Xie (East China University of Science & Technology)
Jian Yu (Tsinghua University)
De-Xi Wang (Institute of Chemistry Chinese Academy of Sciences)
De-Qun Li (Huazhong University of Science and Technology)
James Lee (The Ohio State University)
Lih-Sheng (Turng University of Wisconsin-Madison)
Furong Gao (Hong Kong University of Science and Technology)
Shia Chung Chen (Chung Yuan Christian University)
Rong Yu Chang (Tsing Hua University)
Wen Ren Jong (Chung Yuan Christian University)

Secretary: Ti-kun Shan (Qingdao Universtiyt of Science and Techology)