

Editorial

COST (European Cooperation in the field of Scientific and Technical Research) is a framework for scientific and technical cooperation, allowing the coordination of national research on a European scale. 43 countries participate at various levels, including all European Union member states. The goal of COST is to ensure that Europe holds a strong position in the field of scientific and technical research for peaceful purposes by increasing European cooperation and interaction in this field.

The COST programme has established 'Actions' in targeted strategic research areas. COST 518 is one of these Actions and focuses on 'Molecular and Polymeric Materials for Advanced Devices'. The action is in its third and final year of activity. 18 countries are participating.

16 projects in the form of collaborative interdisciplinary networks have been initiated, covering areas such as Phthalocyanines, Low Band-Gap Materials, Nonlinear Optical Materials, Molecular Magnets, Holographic Polymers, Light Emitting Functional Materials, Thin Film Preparation, Surface Modified Clusters, Biomaterials, Materials for Sensing, and Sol-Gel Hybrids.

Active molecular and polymeric materials present virtually unlimited scope for structural modifications on a molecular, mesoscopic, and macroscopic level, combining versatility, molecular engineering, processability, environmental compatibility, and relative independence on raw material supplies. Particular benefits are presented by the opportunity to create multiple combinations of different chemical and physical properties, such as the association of magnetism and transparency, or mesomorphism and electrical conductivity.

An attractive feature of COST 518 is its interdisciplinary nature, bringing together chemists, physicists, material scientists, and electronic, chemical, and mechanical engineers to address common problems from different perspectives.

The articles in this special issue summarize the work presented at the final COST 518 workshop that took place in Patras, Greece, from June 23 to 25, 2000, and therefore give an excellent overview of the progress made by the action and the state-of-the-art in this field at this moment. The workshop was attended by 60 participants, most of them from countries of the European Union, but also from USA, Japan, Switzerland, and Turkey. The workshop included 31 invited and submitted oral presentations and several poster presentations in three sessions: Molecular Materials, Modified Ordered Arrays, and Functional Polymers.

Werner J. Blau
(*Chairman COST 518*)
Panagiotis Lianos
Ulrich Schubert
Issue Editors