This issue of the Macromolecular Symposia contains plenary and invited lectures, delivered at the 12th IUPAC International Symposium on MacroMolecular Complexes (MMC-12), sponsored by IUPAC, and held in Fukuoka, Japan on 27-31, August 2007 and was chaired by N. Toshima (Yamaguchi), H. Nishide (Tokyo), N. Kimizuka (Fukuoka). The congress was part of the series of regular biennial meetings of the MMC group focusing on the role of metal ions, complexes and metal nanoparticles in macromolecular and self-assembled supramolecular systems wherein the macromolecules were either natural or synthetic organic or synthetic inorganic.

Around 236 participants from 21 countries demonstrated the increasing interest and exciting progress in the field of the Macro-Molecular Complexes (MMC) by their contributions.

The meeting was organized by the Kyushu University and Tokyo University of Science, Yamaguchi with the sponsor of International Union of Pure and Applied Chemistry (IUPAC), Society of Polymer Science, Japan (SPSJ), Chemical Society of Japan (CSJ), Fukuoka city, Fukuoka Convention Bureau, the Kao Foundation for Arts and Science, Nippon Sheet Glass Foundation for Materials Science and Engineering, the Ogasawara Foundation for the Promotion of Science and Engineering.

In keeping the basic scientific design and tradition of the previous MMC symposia, MMC-12 had the slightly modified title of symposium (Macromolecule-Metal Complexes was replaced with MacroMolecular Complexes.), according to the decision of the International Advisory Board. The Macro-Molecular Complexes (MMC) includes macromolecule-metal complexes as the most

typical example. Congress topics included: Macromolecule-Metal Complexes, Polynuclear Complexes, Capped Metal Nano-Organic-Inorganic particles, Hybrids, Supramolecular Complexes and Self-Assembly, Polyelectrolytes, Conductive Properties (Conductivity, Photoconductivity, Ionic conductivity, etc.), Photophysical Functions (Energy transfer, Electron transfer, Photoenergy conversion, etc.), Catalysis and Photocatalysis, Functions and Applications (Electronic, Optical, Magnetic, etc.), and Biological Applications.

The program coverage was granted by a number of specialists as plenary and invited speakers covering basic areas and new developments of MMC. 44 lectures were presented by plenary and invited speakers and additionally about 180 poster presentations were provided by other participants.

A relevant part of these presentations of high technical value is now reported in an extended manner in this special issue. 23 manuscripts in form of review style and original papers derived from the plenary and invited lectures. It is our belief that the content of this dedicated volume provide an up-to-date contribution of the scientific research and possible applications of macromolecular complexes including the state of the art of general topics and some new original results.

The 13th International Symposium on MacroMolecular Complexes (MMC-13) will be held in Chili, in 2009. Finally the guest editors would like to express their thanks to all contributors of the symposium.

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