FOREWORD

Applied Statistical Physics Molecular Engineering Conference

Puerto Vallarta, Mexico, 24-29 August 2003

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The Second International Conference on `Applied Statistical Physics: Molecular Engineering /ASTATPHYSMEX-2003)' was held in Puerto Vallarta, Mexico on 24-29 August 2003. The aim of the Conference was to gather applied and basic scientists interested in the design and understanding of nano-structures, nano-circuits and nano-biotechnology, with self-assembly of supramolecular materials and molecular confinement as a common theme. Particular applications in these areas included catalysis, electronics and biological tissue reconstruction. The specific topics that were covered are clearly apparent from the headings of the sessions: *Complex Fluids: Equilibrium and Dynamics, Nano-biotechnology, Nanoscience, Quantum Engineering*, *Molecular Design of New Catalysts and Nanoporous Materials by Assembling & Combinatorial Methods, Petroleomics: From Petroleum Composition to Commercial Realty, Materials Characterization Techniques and Nanotechnology, Ionic Channels, Phase Transition and Layered Materials*. Over 300 participants attended the conference at this beautiful tropical resort (84% from the Americas, 12.5% from Europe and 3.5% from Asia). Of these, 19% were students and another 4% exhibitors from various companies and institutions. The editors of Journal of Physics: Condensed Matter agreed to publish contributed papers as a special issue of the Journal. As will be apparent from the work collected in this issue, some review material has been incorporated to introduce topics as diverse as Nano-biotechnology, Nanoscience, Nanotechnology and Material Characterization Techniques, Complex Fluids and Catalysts and Nanoporous Materials.

The ASTATPHYS-MEX-2003 Conference was organized as one of the activities of the Mexican Academy of Molecular Engineering (MAME). MAME is a nonprofit society of leading scientists from major institutes, universities and companies, dedicated to the development and promotion of molecular engineering within the scientific and industrial communities. As president of the Academy, Marcelo Lozada-Cassou extends an invitation to distinguished scientists, technologist, industrialists and students of physics, chemistry, chemical engineering, mathematics and other related areas who are interested in molecular engineering to join the Academy.

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