

PATRAS, GREECE  
SEPTEMBER 17<sup>TH</sup> - 22<sup>ND</sup> 2000



The 14<sup>th</sup> Conference of the European Colloid and Interface Society was held between September 17-22 in Patras, Greece. 182 contributions were presented in nine scientific sessions: Self Assembly of Amphiphiles, Polymer-Surfactant Interactions, Measurements in Concentrated Suspensions, Molecular Interactions in Thin Films, New Trends in Colloid and Interface Science Techniques, Colloids in Pharmaceutical and Biological Applications, Biocolloids, Structure and Dynamics at Interfaces, and Rheology. Each session included two invited lectures, oral presentations and poster presentations. The thematic areas were chosen so that they are representative of the most interesting activities of the Colloid and Interface Science research community. The Rheology of colloidal systems is of particular interest and two sessions were devoted in this aspect one of them focusing on measurements in concentrated suspensions. This was also the topic of an IUPAC workshop held on Wednesday, September the 20<sup>th</sup>.

The lectures included studies on the dynamics near the colloidal glass transition based on 3-D motion observation of the motion of colloidal particles in condensed suspension. Studies on the measurement of electrochemical permeability of films of colloidal clay, the stability of disk-like colloids, the determination of particle size and interaction of concentrated oil in water emulsions were also reported. Moreover, the use of coherent x-rays, multiple scattering analysis in colloidal suspensions was presented. The oral presentations in the session on concentrated suspensions included sol-gel transition and crystallization studies of hard-sphere suspensions. In the poster session aggregation studies of sols proteins, non-ionic and other micelles were presented. In the session on the Rheology chaired by Prof. H. Hoffmann, 10 oral and five posters presentations were given. The shear induced self diffusion and the rheology of hairy particle disper-

sions were among the topics presented. Short time and long time diffusion processes were found while the measurements in hairy particle suspensions revealed new phenomena and showed that it is not possible to describe these particles as hard spheres.

Theoretical developments of dense colloidal systems included predictions using phase diagrams and taking into account various factors including the stress response of the system. Rheological modelling of suspensions, containing cross-linked polymer particles (microgels) was presented based on the concept of the effective volume fraction. The use of high-resolution ultrasonic spectroscopy for rheological developments in gels, a novel methodology, was shown to be a useful non-destructive tool for the analysis of high-frequency rheological parameters of gels. In the same area the use of real space and Fourier microscopy for the investigation of the structure and the phase transition kinetics in fluid-like ordered charged colloidal suspensions was demonstrated. Rheology studies on foams using microscopic techniques (SEM/TEM/AFM) and pressure measurements and investigations on the rheology and conformation of semi flexible polymer solutions, droplets and water soluble polymers were presented. In the poster sessions, corresponding to these sessions, the papers presented included for the most part, applications on food colloids (yogurt and milk) water in oil emulsions and heterotelechelic polyelectrolytes. More information on the detailed program and the list of participants can be found at the web site of the conference: <http://ecis2000.chemeng.upatras.gr>. The contributions presented in all sessions shall be published following the completion of the review process in a special issue of Progress in Colloid and Polymer Science.

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