

PROGRESS IN COLLOID & POLYMER SCIENCE

Editors: F. Kremer (Leipzig) and G. Lagaly (Kiel)

Volume 111 (1998)

Structure, Dynamics and Properties of Disperse Colloidal Systems

Guest Editors:

H. Rehage and G. Peschel (Essen)



STEINKOPFF
DARMSTADT



Springer

	Preface	V
	Opening Address	
M. J. Schwuger:	Opening adress at the 38th General Conference of the German Colloid Society in Essen	1
	Wolfgang-Ostwald-Prize	
E. Matijević:	Wolfgang Ostwald Prize 1997 awarded to Stig Friberg	3
	Thomas-Graham-Medal	
K. Beneke, G. Lagaly, G. Schön:	Thomas Graham Prize 1997 awarded to Armin Weiß	6
	Technical Applications	
W. Umbach:	The importance of colloid chemistry in industrial practice	9
G. Rossmly:	From polyurethane foam stabilization to amphiphilic particles An example of industrial R&D in colloid chemistry	17
	Advanced Experimental Techniques	
D. Horn, J. Klinger, W. Schrof, K. Graf:	Experimental progress in the characterization of colloidal systems	27
	Thin Films and Interfaces	
R. Lipowsky:	Colloids and interfaces: a theoretical perspective	34
Z. Adamczyk, B. Siwek, P. Weronki, M. Zembala:	Adsorption of colloid particle mixtures at interfaces	41
P. Ulbig, C. Berti, S. Schulz:	Correlation and prediction of liquid phase adsorption equilibria	48
	Suspensions and Microcapsules	
G. Schmid:	Large metal clusters and colloids-metals in the embryonic state	52
D. Barthès-Biesel:	Mechanics of encapsulated droplets	58
I. Dékány, T. Haraszti, L. Turi, Z. Kiraly:	Stability of hydrophilic/hydrophobic silica particles in binary liquids. Adsorption, rheological and SAXS experiments	65
M. Mielke, R. Ziemehl:	The reverse behavior of negatively and positively charged poly(N-Isopropylacrylamide) latex dispersions in alcohol-water-mixtures at temperatures below their critical phase transition	74
M. Wagener, B. Günther:	High pressure DC-magnetron sputtering on liquids: A new process for the production of metal nanosuspensions	78
F. Bagusat, O. Seidel, H.J. Mögel:	Time periodic changes of viscosity in kaolin suspensions as an example for modeling concentrated suspensions	82

Emulsions, Microemulsions, Foams

L. Fei, M. Szymula, S.E. Friberg, P. A. Aikens:	Vapor pressure of phenethyl alcohol and phenethyl acetate in the system with water and nonionic surfactant-Polyoxyethylene-4-Lauryl-ether (Brij® 30)	85
C. Stubenrauch, S. K. Mehta, B. Paepflow, G. H. Findenegg:	Microemulsion systems based on a C _{8/10} alkyl polyglycoside. A reentrant phase inversion through alcohols	92
T. Beitz, J. Kötzt, S.E. Friberg:	Polymer-modified ionic microemulsions formed in the system SDS/water/xylene/pentanol	100
H. von Berlepsch, R. Wagner:	Preparing microemulsions with silicone surfactants	107
T. Wolff, D. Nees:	Influence of solubilized stilbazolium salts in trans- and cis -configuration on the percolation equilibrium in AOT-isooctane-water microemulsions: light induced switching of conductivity	113
Th. Engels, W. von Rybinski, P. Schmiedel:	Structure and dynamics of surfactant based foams	117

Macromolecules

P. Fischer, H. Finkelmann:	Lyotropic liquid-crystalline elastomers	127
E. Killmann, D. Bauer, A. Fuchs, O. Portenlänger, R. Rehmert, O. Rustemeier:	Adsorption of polyelectrolytes on colloidal particles. Electrostatic interactions and stability behavior	135
B. U. Kluß, R. Zimehl:	Some aspects of colloidal polymers: Solvent structure originated interactions	144

Association Colloids

O. A. El Seoud, R. C. Bazito, G. K. Barlow:	A proton NMR study on the structure of interfacial water of aqueous micelles: Effect of the structure of the surfactant	151
H. Kuhn, H. Rehage:	Self-Diffusion processes of water molecules near the surface of sodium octanoate micelles studied by molecular dynamics computer experiments .	158

Colloidal Systems in Environmental Science

R. Szafranski, J. B. Lawson, G. J. Hirasaki, C. A. Miller, N. A. Kiya, S. King, R. E. Jackson, H. Meinardus, J. Londergan:	Surfactant/foam processes for improved efficiency of aquifer remediation	162
D. A. Sabatini, J. H. Harwell, R. C. Knox:	Surfactant selection criteria for enhanced subsurface remediation: Laboratory and field observations	168
A. Hild, J.-M. Séquaris, H. D. Narres, M. J. Schwuger:	Adsorption of anionic surfactant Na-dodecylsulfate (SDS) at the polyvinylpyrrolidone(PVP)-modified-Na-montmorillonite surface	174

A. Pohlmeier, S. Haber-Pohlmeier, H. Rützel, H. D. Narres:	Sorption of Cu^{2+} and Zn^{2+} at Na-montmorillonite: Analysis by means of affinity spectra	179
Th. Hofmann, U. Schöttler:	Behaviour of suspended and colloidal particles during artificial ground- water recharge	184
A. Eckelhoff, A. V. Hirner:	On the influence of surfactants on the mobility of contaminants	189
J. Thieme, J. Niemeyer:	Interaction of colloid soil particles, humic substances and cationic detergents studied by X-ray microscopy	193
	Author Index	202
	Subject Index	203