

CONTENTS OF VOLUME 1

PART I: GENERAL PAPERS

The Wide World of Micelles K. L. Mittal and P. Mukerjee.	1
Micelles - Retrospect and Prospect G. S. Hartley	23
Micellization, Solubilization, and Microemulsions L. M. Prince.	45
Biological Implications of Micelle Formation A. T. Florence.	55
Fluorescent Probes for Micellar Systems N. J. Turro, M. W. Geiger, R. R. Hautala and N. E. Schore.	75
Micellar Solutions for Improved Oil Recovery V. K. Bansal and D. O. Shah	87
Discussion	115

PART II THERMODYNAMICS AND KINETICS OF MICELLIZATION
IN AQUEOUS MEDIA

Thermodynamics of Micellization of Simple Amphiphiles in Aqueous Media C. Tanford.	119
Thermodynamics of Amphiphilar Aggregation into Micelles and Vesicles E. Ruckenstein and R. Nagarajan	133
Thermodynamics of Micelle Formation K. S. Birdi	151

Size Distribution of Micelles: Monomer-Micelle Equilibrium, Treatment of Experimental Molecular Weight Data, the Sphere-to-Rod Transition and a General Association Model P. Mukerjee	171
Ionic Interactions in Amphiphilic Systems Studied by NMR B. Lindman, G. Lindblom, H. Wennerström and H. Gustavsson	195
Errors in Micellization Enthalpies from Temperature Dependence of Critical Micelle Concentrations N. Muller	229
The Nature of the Local Microenvironments in Aqueous Micellar Systems P. Mukerjee, J. R. Cardinal, and N. R. Desai.	241
The Influence of Hydrophobic Counterions on the Thermodynamics and Kinetics of Ionic Micelles H. Hoffmann, H. Nüsslein and W. Ulbricht.	26
On the Use of Chemical Relaxation Methods to Distinguish between True Micellization and Continuous Association R. Zana, J. Lang, S. H. Yiv, A. Djavanbakt and C. Abad	291
Kinetic Study on Micellization of Ionic Surfactants by Means of Relaxation Methods K. Takeda, T. Yasunaga and H. Uehara.	
On the Kinetics of Redistribution of Micellar Sizes M. Almgren, E. A. G. Aniansson, S. N. Wall and K. Holmäter	
Ultrasonic Relaxation Studies Associated with Monomer-Micelle Exchange Processes W. J. Gettins, J. E. Rassing and E. Wyn-Jones	
The Size, Shape and Thermodynamics of Sodium Dodecyl Sulfate (SDS) Micelles using Quasielastic Light Scattering Spectroscopy N. A. Mazer, M. C. Carey and G. B. Benedek.	359
Quasielastic Light Scattering Spectroscopic Studies of Aqueous Bile Salt, Bile Salt-Lecithin and Bile Salt-Lecithin-Cholesterol Solutions N. A. Mazer, R. F. Kwasnick, M. C. Carey and G. B. Benedek	383

Quasielastic Laser Spectrometry Studies of Pure Bile Salt and Bile Salt-Mixed Lipid Micellar Systems

R. T. Holzbach, S. Y. Oh, M. E. McDonnell, and
A. M. Jamieson.

Discussion

PART III. MICELLES IN NONAQUEOUS MEDIA

Micelles in Apolar Media

H. F. Eicke 429

Aggregation of Surfactants in Hydrocarbons. Incompatibility of the Critical Micelle Concentration Concept with Experimental Data

A. S. Kertes.

Mixed Non-Ionic Detergent Systems in Aqueous and Non-Aqueous Solvents

I. Lo, F. Madsen, A. T. Florence, J.-P. Treguier,
M. Seiller and F. Puisieux.

Calorimetric Studies of the Micelle Formation in Solutions of Sodium Octanoate and Water in Aliphatic Alcohols

J. B. Rosenholm, P. J. Stenius and M.-R. Hakala . . .

Discussion 479

Concluding Remarks .

About the Contributors xvii

Subject Index

CONTENTS OF VOLUME 2

PART IV: REACTIONS IN MICELLES AND MICELLAR CATALYSIS
IN AQUEOUS MEDIA

The Kinetic Theory and the Mechanisms of Micellar Effects on Chemical Reactions K. Martinek, A. K. Yatsimirski, A. V. Levashov and I. V. Berezin	489
A General Kinetic Theory of Rate Enhancements for Reactions between Organic Substrates and Hydrophilic Ions in Micellar Systems L. S. Romsted	509
Laser Photolysis Studies of Photo Redox Processes in Micellar Solution M. Grätzel.	531
Radiation-Induced Redox Reactions in Micellar Solutions A. J. Frank	549
Radiation-Induced Processes in Nonionic Micelles K. Kalyanasundaram and J. K. Thomas	
Radiation-Induced Peroxidation in Fatty Acid Soap Micelles L. K. Patterson and J. L. Redpath	
Bifunctional Micellar Catalysis R. A. Moss, R. C. Nahas, and S. Ramaswami	
The Use of Phase Transfer Catalysts with Emulsion and Micelle Systems in Electro-Organic Synthesis T. C. Franklin and T. Honda	
The Catalytic Role of Micelle-Bisulfite Complexation in Vinyl Polymerization O.-K. Kim	
Discussion .	

PART V: REACTIONS IN MICELLES AND MICELLAR CATALYSIS
IN NONAQUEOUS MEDIA

Some Kinetic Studies in the Reversed Micellar System- Aerosol OT (Diisooctyl Sulfosuccinate)/H ₂ O/ Heptane Solution M. Wong and J. K. Thomas.	647
Catalysis by Cations in Cores of Non-Aqueous Micelles F. M. Fowkes, D. Z. Becher, M. Marmo, C. Silebi and C. C. Chao.	
Solubilization and Catalysis of Polar Substances in Nonaqueous Surfactant Solutions A. Kitahara and K. Kon-no	
Ligand Exchange Reactions of Hemin and Vitamin B _{12a} in the Presence of Surfactants in Water and in Nonpolar Solvents J. H. Fendler	
Discussion .	

PART VI: MICROEMULSIONS

Theory for the Phase Behavior of Microemulsions M. L. Robbins	
Stability, Phase Equilibria, and Interfacial Free Energy in Microemulsions E. Ruckenstein.	
Light Scattering of a Concentrated W/O Micro Emulsion; Application of Modern Fluid Theories A. A. Caljé, W. G. M. Agterof and A. Vrij	
Microemulsions Containing Ionic Surfactants S. Friberg and I. Buraczewska	791
Interactions and Reactions in Microemulsions R. A. Mackay, K. Letts, and C. Jones. .	
Discussion	817

PART VII. GENERAL PAPERS

Mixed Micelles of Methyl Orange Dye and Cationic Surfactants R. L. Reeves and S. A. Harkaway	
Anionic Surfactant Complexes with Charged and Uncharged Cellulose Ethers E. D. Goddard and R. B. Hannan.	
Proposal for a New Theory of Molecular Transport across Membranes: Implications for Lung Gas Transference B. Ecanow, B. H. Gold, R. Balagot, and R. S. Levinson	
Interfacial Tension Minima in Two-Phase Micellar Systems E. Franses, M. S. Bidner and L. E. Scriven.	
Equilibrium Bicontinuous Structures L. E. Scriven	877
Intramacromolecular Micelles U. P. Strauss	895
Solubilization by Nonionic Surfactants in the HLB- Temperature Range S. Friberg, I. Buraczewska, and J. C. Ravey	901
The Effect of Lysoplasmalogen on Some Physical Properties of Dipalmitoyllecithin Bilayers: A Fluorescent Probe Study D. A. N. Morris and J. K. Thomas.	913
Concluding Remarks	927
About the Contributors	931
Subject Index	