

Symposium 13

Title: **The Role of Phase Science in Colloid and Surface Science**

Chair and Co-Chair: Dr. Bob Laughlin/Dr. Z. George Zhang

Chair Assistant: Suresh Govindaswamy

Location: 177 CAMP

Monday, June 13, 2005

Presiding: S. E FRIBERG, R. G. LAUGHLIN

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|----------|-------------------|---|
| 13-01** | 11:00-11:40 AM | The Role of Phase Science in Colloid Science
R. G. LAUGHLIN |
| 13-02* | 11:40 AM-12:20 PM | What's New with the Gibbs Adsorption Equation?
B. WIDOM |
| 13-03*** | 1:30-2:10 PM | Some Applications of Surfactant Phase Diagrams
S. E FRIBERG |
| 13-04* | 2:10-2:35 PM | "Stained glasses", Thin Liquid Films and Lamellar Liquid
Crystals
J.CZARNECKI, J. Masliyah, N. Panchev, and S. Taylor |
| 13-05* | 2:35-3:00 PM | Emulsion Structure and Stability: Role of Depletion and
Structural Forces
D. WASAN, A. Nikolov |
| 13-06** | 3:20-4:00 PM | Phase Diagrams of Ternary Liquid Bilayer Mixtures Containing
Cholesterol
G. W. FEIGENSON |
| 13-07** | 4:00-4:40 PM | Phase Behavior and Structure in Mixtures of Surfactants and
Hydrotropes
E. W. KALER and Y. Gonzalez |
| 13-08* | 4:40-5:00 PM | A New Approach to Dilute and Concentrated Lamellar Phases
in Phase Diagrams of Nonionic Surfactants
C. STUBENRAUCH |
| 13-09* | 5:00-5:20 PM | Spontaneous Emulsification and its Relationship to Phase
Behavior: Review and Recent Development
C. A. MILLER |

Tuesday, June 14, 2005

Presiding: Czarnecki/Sjoblom, Laughlin/Zhang

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| 13-10** | 10:30-11:10 AM | Water-in-Crude Oil Emulsions – Stability Mechanisms and Environmental Aspects
J. SJÖBLOM, Pål V. Hemmingsen, G. Øye, A. Hannisdal, M-H. Ese, Ø. Brandal and M. Häger |
| 13-11* | 11:10-11:30 AM | Colloid Science and Electrokinetics in Oil Sands Processing
J. MASLIYAH and Z. Xu |
| 13-12* | 11:30-11:50 AM | Structure -function relations in asphaltene nanoaggregates
O. C. MULLINS |
| 13-13* | 11:50 AM-12:10 PM | Liquid Crystallinity and Emulsion Formation in Ternary Oil-Water-Acid/Soap Systems
M-H. Ese, M. L. Marques, and P. K. KILPATRICK |
| 13-14* | 12:10-12:30 PM | Studies on properties of interfacial active fractions from crude and its effect on stability of crude emulsions
M. LI, J. Guo, M. Lin, and Z. Wu |
| 13-15* | 1:30-2:00 PM | Phase Equilibria and Separation of Amphiphilic Extractives from Wood
P. STENIUS |
| 13-16* | 2:00-2:20 PM | Building an Institute to Serve Industry with Innovations from Surface Chemistry Research
B. LYNE |
| 13-17* | 2:20-2:40 PM | Crystal Comets: Dewetting during Emulsion Droplet Crystallation
P. T. SPICER, ¹ R. W. Hartel |
| 13-18* | 2:40-3:00 PM | Dispersions of Glyceryl Monooleate with PEO-Copolymers Bearing Lipid-Mimetic Hydrophobic Blocks in Water
S. Rangelov, M. ALMGREN |
| 13-19** | 3:20-4:00 PM | Worm-Like Micelles and Microemulsions |

H. KUNIEDA

- 13-20* 4:00-4:20 PM Friberg Correlations in Oil Recovery
G. HORVATH-SZABO, L. Goual, A. Magual, and J. H. Masliyah
- 13-21* 4:20-4:40 PM Phase Behavior in Confinement Studied with a Surface Force Apparatus
H. K. CHRISTENSON
- 13-22* 4:40-5:00 PM A Magneto-optical Apparatus for Boundary Localization of Ternary Phase Diagrams
S. DESERT

Wednesday June 15, 2005

Presiding: Friberg, Zhang/Zheng, Laughlin/Zhang

- 13-24** 10:00-10:40 AM Surface Chemical Aspects of Treatments with Dental Implants
P-O. J. GLANTZ
- 13-25* 10:40-11:00 AM *Withdrawn*
- 13-26* 11:00-11:20 AM Studies on the Stability of the Choramphenicol in the Microemulsion-based Ocular Drug Delivery Systems
L. ZHENG
- 13-27* 11:20-11:40 AM Application of phase studies for the formulation of high ionic strength antiperspirant products
Z. MA, and R. Brucks
- 13-28* 11:40 AM-12:00 PM Salicylic Acid Vesicle Solutions, Emulsions and their Combinations
A. AL BAWAB,¹ S. E. Friberg
- 13-29* 12:00-12:20 PM Theoretical Study on Synergisms of Surfactant Mixtures
Z-W. WANG, Z-N. Wang, Jun Xu, and G. Li
- 13-30** 1:30-2:10 PM Colloid and Surface Science in Consumer Product Development
F. E. LOCKWOOD, and Z. G. Zhang

- 13-31* 2:10-2:30 PM X-ray Studies of Mixed Surfactant Ordering and Phases at the Water-Oil Interface
S. V. Pingali, T. Takiue, G. Luo, A. M. Tikhonov, N. Ikeda, M. Aratono and M. L. SCHLOSSMAN
- 13-32* 2:30-2:50 PM Monolayer Phase Morphology Induced by Bulk Flow
A. H. HIRSA, J. J.F. Leung, M. J. Vogel, and J. M. Lopez
- 13-33* 2:50-3:10 PM Mixed cationic and glycoside surfactants: Investigation of ternary phase diagram and Predictive Mesoporous Materials Synthesis
R. Xing and S. E. RANKIN
- 13-34* 3:10-3:30 PM Nano-emulsion Formation by Low-Energy Emulsification Methods and Phase Behavior
C. SOLANS, P. Izquierdo , D. Morales, N. Sadurní, J. Esquena, , N. Azemar, M. J. Garcia-Celma,