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Thin Liquid Film Phenomena

William B. Krantz, Darsh T. Wasan & Rakesh K. Jain, Eds.
(AIChE Symposium Series Vol. 82, No. 252)

This unique research report of thin liquid phenomena presents proceedings of a symposium organized by AIChE's Interfacial Phenomena Technical Program Committee in cooperation with the ACS Division of Colloid and Surface Chemistry at the Annual Fall Meeting of the American Chemical Society in Chicago, Illinois, on Sept. 8-13, 1985.

Contents: Thin Liquid Film Phenomena. Thin Liquid Surfactant Film Drainage Phenomena. The Influence of the Long Range Intermolecular Interactions on the Hydrodynamic Stability of Ultrathin Films. Film Instabilities Arising from Steep Concentration or Temperature Gradients. The Role of Wettability in the Breakup of Liquid Films Inside Constricted Capillaries. Interfacial Properties of Thin Liquid Films in Relation to Boundary and Hydrodynamic Lubrication in the Eye. Hydrodynamic Properties of Thin Films Studied by Laser Light Scattering. Differential-Interferometric Investigation of Curved Liquid. Polyvinyl Alcohol as a Suspending Agent for PVC Production. Effects of Surface Viscosities on the Thinning and Rupture of a Dimpled Liquid Film as a Small Bubble Approaches a Liquid-Gas Interface. The Effect of Adsorption of Liquid Crystalline Layers on the Van Der Waals Interactions in Foams. Nonlinear Stability of Thin Free Liquid Films. Rupture of Thin Free Films with Insoluble Surfactants. The Role of Thin Liquid Films in Wetting. Fluid Flow and Evaporation in an Ultra-Thin Film of a Binary Mixture. Application of the Gradient-Driven Instability Mechanism to Polymeric Membrane Morphology. A Mechanical Formulation of Chemical Induced Deformations of the Red Cell Blood Plasma Membrane. Effect of Glucose, Galactose and Transmembrane Potential on Shear Elastic Modulus of Erythrocyte Membrane.

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