

CY746 Self assembly of surfactants and Polymers in Solution

Credit: 3-0-0-3

Approval: Approved in 2nd Senate

Prerequisites: Consent of the faculty member

Students intended for: Ph.D.

Elective or Core: Elective

Semester: Odd/Even: Even

Course content:

Classification of surfactants, Basic and applied theories, surface active polymers, properties of surfactants, micelle formation, microemulsions, phase behaviour of surfactant systems, applications in nanomaterial synthesis, emulsion formation and stabilisation, foams, wetting, spreading and adhesion, personal care and cosmetics, pharmaceutical formulations, food industry

Text & Reference Books:

Surfactants and Interfacial Phenomena, Milton J. Rosen, Wiley Interscience

Surfactants and Polymers in Aqueous Solution, K. Holmberg, B. Jonsson, B. Kronberg, B. Lindman, John Wiley & Sons Limited.

Chemistry and Technology of Surfactants, Richard J. Farn, Blackwell Publishing.

Applied Surfactants: Principles and Applications, Tharwat F. Tadors, Wiley-VCH Verlag GmbH & Co. KGaA.

Reactions and Synthesis in Surfactant Systems, John Texter, Marcel Dekker