

EMULSION AND NANOEMULSION SCIENCE AND TECHNOLOGY

October 24-26, 2016 Radisson Blu Hotel – Malmö – Sweden

Lecturer: Prof. Tharwat Tadros

Monday, Oct. 24

08.30 – 08.45	Registration - Radisson Blu Hotel
08.45 – 09.45	Introduction. Emulsion and Nanoemulsion science and technology
09.45 – 10.00	Short break
10.00 – 11.00	Physical chemistry of emulsion and nanoemulsion systems
11.00 – 11.15	Coffee / Tea
11.15 – 12.15	Interaction forces between emulsion droplets and their combinations
12.15 – 13.15	Lunch
13.15 – 14.15	Adsorption of surfactants at the liquid/liquid interface
14.15 – 15.15	Mechanism of emulsification
15.15 - 15.30	Coffee / Tea
15.30 – 16.30	Role of surfactants in emulsion and nanoemulsion formation
19.00 -	Dinner at Radisson Blu Hotel. Assembly at the hotel reception.

Tuesday, Oct. 25

09.00 - 10.00	Selection of emulsifiers. The HLB and PIT concepts
10.00 - 10.15	Short break
10.15 - 11.15	The Cohesive Energy Ratio (CER) and Critical Packing Parameter (CPP)
11.15 – 11.30	Coffee / Tea
11.30 – 12.30	Creaming or sedimentation of emulsions
12.30 – 13.30	Lunch
13.30 – 14.30	Flocculation of emulsions
14.30 - 14.45	Short break
14.45 – 15.30	Ostwald ripening of emulsions and nanoemulsions
15.30 – 15.45	Coffee / Tea
15.45 – 16.30	Emulsion coalescence
16.30 – 17.00	Phase inversion of emulsions

Wednesday, Oct. 26

09.00 – 09.45	Preparation of nanoemulsions by high energy emulsification
09.45 – 10.00	Short break
10.00 – 11.00	Preparation of nanoemulsions by low energy (phase inversion) methods
11.00 - 11.30	Coffee / Tea
11.30 – 12.30	Steric stabilisation and the role of the adsorbed layer thickness
12.30 – 13.15	Lunch
13.15 – 14.00	Practical examples of nanoemulsion systems
14.00 – 14.15	Coffee / Tea
14.15 – 15.15	Assessment of emulsion and nanoemulsion stability