1. Record Nr. UNINA9910431352503321 Autore Langevin D (Dominique), <1947-> Titolo Emulsions, microemulsions and foams // Dominique Langevin Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2020] ©2020 **ISBN** 3-030-55681-6 Edizione [1st ed. 2020.] 1 online resource (XIV, 344 p. 137 illus., 17 illus. in color.) Descrizione fisica Soft and Biological Matter, , 2213-1736 Collana Disciplina 660.294514 Soggetti **Emulsions** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Common background -- Microemulsions -- Emulsions and foams --Similarities, differences between emulsions and foams, emulsions and microemulsions -- Industrial applications. This book takes an interface science approach to describe and Sommario/riassunto understand the behavior of the dispersions we call emulsions. microemulsions and foams. The one thing all these dispersions have in common is the presence of surface-active species (surfactants) adsorbed at the interfaces between the two fluid phases that make up the emulsions, microemulsions or foams. The interfacial layers formed by the surfactants control most of the properties of the dispersions. The book describes the properties of interfacial layers, thin films and bulk fluids used in the elaboration of the various dispersions and it explains how such properties relate to the dispersion properties of these soft matter systems: structure, rheology and stability. These dispersions properties are far from being fully understood, in particular foam and emulsion stability. In discussing the state of the art of the

> current knowledge, the author draws interesting parallels between emulsions, microemulsions and foams that enlighten the interpretation of previous observations and point to a deeper understanding of the

behavior of these materials in the future.