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Descrizione fisica	1 online resource (562 p.)
Collana	Progress in colloid and interface science, , 1877-8569 ; ; v. 2
Altri autori (Persone)	MillerReinhard LiggieriL (Libero)
Disciplina	530.417
Soggetti	Interfaces (Physical sciences) Drops Bubbles
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction: drops and bubbles as effective tools for interfacial studies -- Determination of interfacial properties by pendant drop tensiometry: optimisation of experimental and calculation procedures -- Advances in calculation methods for the determination of surface tensions in drop profile analysis tensiometry -- Axisymmetric drop shape analysis with anisotropic interfacial stresses: deviations from the Young-Laplace Equation -- Maximum bubble pressure tensiometry: theory, analysis of experimental constrains and applications -- Drop volume tensiometry -- Studies in capillary pressure tensiometry and interfacial dilational rheology -- Direct determination of protein and surfactant adsorption by drop and bubble profile tensiometry -- Coaxial capillary pendant drop experiments with subphase exchange -- Wetting dynamics of aqueous solutions on solid surfaces -- Bubbles rising in solutions; local and terminal velocities, shape variations and collisions with free surface -- Surface tension measurement of polymer melts in supercritical fluids

-- Accumulation of surfactant in the top foam layer caused by ruptured foam films -- Particle-bubble interaction in flotation -- Experimental observation of drop-drop coalescence in liquid-liquid systems: instrument design and features -- The tensiograph platform for optical measurement -- Emulsification with micro-structured membranes and micro-engineered systems -- Manipulation of droplets onto a planar interface -- Interfacial mass transfer of growing drops in liquid-liquid systems.

Sommario/riassunto

This book describes the most important experimental methods for characterizing liquid interfaces, such as drop profile analysis, bubble pressure and drop volume tensiometry, capillary pressure technique, and oscillating drops and bubbles. It presents practical experimental details as well as the underlying theoretical bases. In addition, the book covers a number of applications based on drops and bubbles, such as rising bubbles and the complex process of flotation. It also offers a discussion on wetting, characterized by the dynamics of advancing contact angles.
