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Sommario/riassunto	Comprehensive resource exploring the basic principles of microbubbles including modeling and simulation, as well as applications across various industrial processes Featuring in-depth case studies, Microbubbles delves into the science and engineering behind microbubbles, their unique properties, and the state-of-the-art techniques being utilized to unlock their full potential, with insight into their various industrial applications, such as in computational fluid dynamics (CFD) modeling, as well as statistical and numerical analyses of lab-scale and pilot-scale operations. Written by a highly qualified author with significant research contributions to the field, this comprehensive resource discusses sample topics including: * Fundamental concepts of mass transfer as well as reaction engineering and process design of microbubble-based systems * Different types of microbubbles, including ozone, N2, air, and O2, and the scope of microbubble industrial scalability, with information on cost and energy estimation * Intrinsic concepts of chemical and environmental

engineering related to microbubbles and recent developments in the simulation of microbubble systems * Latest breakthroughs in microbubble technology, encompassing their use in nanotechnology, pollution control and treatment, and environmental remediation This book is an essential reference on the subject for researchers at the postgraduate, PhD, and postdoctoral levels, along with engineers and chemists working with water and wastewater treatment technology. Understanding the basics of mass transfer and solid operations is a prerequisite to reading.