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Sommario/riassunto

This book, written by Dr. Seiichi Uchiyama, explores the advanced field of intracellular thermometry using fluorescent molecular thermometers. It delves into the principles of temperature measurement within living cells, highlighting the significance and applications of such measurements in biology, medicine, and biotechnology. The text covers a wide range of topics, including the chemical and photophysical properties of fluorescent molecules, various techniques for temperature sensing, and the integration of these thermometers into biological systems. Uchiyama aims to bridge the gap between chemistry and biology, providing detailed chemical insights alongside general biological and medical applications. The book is tailored for researchers and practitioners in the fields of analytical chemistry, cell biology, and thermal medicine, presenting a comprehensive overview of the current state and future potential of intracellular thermometry.