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Sommario/riassunto	This book introduces analytical ultracentrifugation (AUC) as a whole, covering essential theoretical and practical aspects as well as its applications in both biological and non-biological systems. Comprehensive characterizations of macromolecules in a solution are now routinely required not only for understanding the solution system but also for producing a solution with better properties. Analytical

ultracentrifugation is one of most powerful and reliable techniques for studying the biophysical behavior of solutes in solution. In the last few years, there have been steady advances made in hardware, software, and applications for AUC. This book provides chapters that cover everything essential for beginners to the most advanced users and also offer updated knowledge of the field on advances in hardware, software, and applications. Recent development of hardware described in this book covers new detection systems that give added dimensions to AUC. Examples of data analysis with essential theoretical explanations for advanced and recently updated software are also introduced. Besides AUC of biological systems including membrane proteins and biopharmaceuticals, AUC applications for non-biological questions are included. AUC studies under non-ideal conditions such as highly concentrated solutions and solutions with high salt concentration are also included. The contributors to this book are leading researchers in the fields of solution biophysics and physical chemistry who extensively employ AUC analysis for their research. From this published work, one can gain new and comprehensive knowledge of recent AUC analysis.