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Descrizione fisica	1 online resource (viii, 333 pages) : digital, PDF file(s)
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Soggetti	Cohesion
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Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Newton. Newton's legacy -- Newton's heirs -- On the continent -- Science at a halt -- Laplace. Laplace in 1805 -- Capillarity -- Burying Laplacian physics -- Crystals -- Elasticity of plates -- Elasticity of solids -- Van der Waals. 1820-1870 -- Clausius and Maxwell -- Van der Waal's thesis -- 1873-1900 -- Electrical molecule -- Resolution. Dispersion forces -- Argon -- Water -- Action at a distance -- Solids and liquids.
Sommario/riassunto	Why does matter stick together? Why do gases condense to liquids, and liquids to solids? This book provides a detailed historical account of how some of the leading scientists of the past three centuries have tried to answer these questions. The topic of cohesion and the study of intermolecular forces has been an important component of physical science research for hundreds of years. This book is organised into four broad periods of advances in our understanding. The first three

are associated with Newton, Laplace and van der Waals. The final section gives an account of the successful use in the twentieth century of quantum mechanics and statistical mechanics to resolve most of the remaining problems. The book will be of primary interest to physical chemists and physicists, as well as historians of science interested in the historical origins of our modern day understanding of cohesion.

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