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	Sommario/riassunto	Brings Readers from the Threshold to the Frontier of Modern Research Many-Body Methods for Atoms and Molecules addresses two major classes of theories of electron correlation: the many-body perturbation theory and coupled cluster methods. It discusses the issues related to the formal development and consequent numerical implementation of the methods from the standpoint of a practicing theoretician. The book will enable readers to understand the future development of state-of-the-art multi-reference coupled cluster methods as well as their perturbative counterparts. The book begins with an introduction to the issues relevant to the development of correlated methods in general. It next gives a formally rigorous treatment of aspects that pave the foundation toward the theoretical development of methods capable of tackling problems of electronic correlation. The authors go on to cover

perturbation theory first in a fundamental way and then in the multi-reference context. They also describe the idea of state-specific theories, Fock space-based multi-reference coupled cluster methods, and basic issues of the single-reference coupled cluster method. The book concludes with state-of-the-art methods of modern electronic structure.