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Nota di contenuto	THE ELECTRON CAPTURE DETECTOR AND THE STUDY OF REACTIONS WITH THERMAL ELECTRONS; CONTENTS; FOREWORD; PREFACE; 1. Scope and History of the Electron; 1.1 General Objectives and Organization; 1.2 General Scope; 1.3 History of the Electron; References; 2. Definitions, Nomenclature, Reactions, and Equations; 2.1 Introduction; 2.2 Definition of Kinetic and Energetic Terms; 2.3 Additional Gas Phase Ionic Reactions; 2.4 Electron Affinities from Solution Data; 2.5 Semi-Empirical Calculations of Energetic Quantities; 2.6 Herschbach Ionic Morse Potential Energy Curves; 2.7 Summary; References 3. Thermal Electron Reactions at the University of Houston3.1 General Introduction; 3.2 The First Half-Century, 1900 to 1950; 3.3 Fundamental Discovery, 1950 to 1960; 3.4 General Accomplishments, 1960 to 1970; 3.4.1 Introduction; 3.4.2 The Wentworth Group; 3.4.3 Stable Negative-Ion Formation; 3.4.4 Dissociative Thermal Electron Attachment; 3.4.5 Nonlinear Least Squares; 3.5 Milestones in the Wentworth Laboratory and Complementary Methods, 1970 to 1980; 3.6

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## Sommario/riassunto

Broad in scope, this book describes the general theory and practice of using the Electron Capture Detector (ECD) to study reactions of thermal electrons with molecules. It reviews electron affinities and thermodynamic and kinetic parameters of atoms, small molecules, and large organic molecules obtained by using various methods.\*

Summarizes other methods for studying reactions of thermal electrons with molecules\* Discusses applications in analytical chemistry, physical chemistry, and biochemistry\* Provides a data table of electron affinities

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