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Nota di contenuto	Front Cover; Adsorption by Carbons; Copyright Page; Table of Contents; Foreword; Preface; List of Contributors; Part 1 Introduction; Chapter 1 Overview of Physical Adsorption by Carbons; 1.1 Introduction; 1.2 Physisorption on Nonporous Carbons; 1.3 Physisorption by Porous Carbons; 1.4 Concluding Remarks; References; Chapter 2 Overview of Carbon Materials in Relation to Adsorption; 2.1 Introduction; 2.2 Structures of Elemental Carbon: Carbon Allotropes and Polytypes; 2.3 The sp <sup>2</sup> Carbon Forms: Graphitic, Graphitizable, and Nongraphitizable Carbons 2.4 Structural Characterization of Carbon Materials: The Basic Structural Units and Their Stacking and Orientation Degrees 2.4.1 Planar Orientation; 2.4.2 Axial Orientation; 2.4.3 Point Orientation; 2.4.4 Random Orientation; 2.5 Conclusions; Acknowledgments; References; Part 2 Fundamentals of Adsorption by Carbons; Chapter 3 Energetics of Gas Adsorption by Carbons: Thermodynamic Quantities; 3.1 Introduction; 3.2 Classical Thermodynamics; 3.3 Statistical Mechanics; 3.4 Thermodynamic Quantities and Experimental Results; 3.5 Conclusions; Acknowledgment; References

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## Sommario/riassunto

This book covers the most significant aspects of adsorption by carbons, attempting to fill the existing gap between the fields of adsorption and carbonaceous materials. Both basic and applied aspects are presented. The first section of the book introduces physical adsorption and carbonaceous materials, and is followed by a section concerning the fundamentals of adsorption by carbons. This leads to development of a series of theoretical concepts that serve as an introduction to the following section in which adsorption is mainly envisaged as a tool to characterize the porous texture and surface

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