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Nota di contenuto	Activated Carbon for Water and Wastewater Treatment: Integration of Adsorption and Biological Treatment; Preface; List of Abbreviations; Acknowledgement; 1: Water and Wastewater Treatment: Historical Perspective of Activated Carbon Adsorption and its Integration with Biological Processes; 1.1 Historical Appraisal of Activated Carbon; 1.2 General Use of Activated Carbon; 1.3 Application of Activated Carbon in Environmental Pollution; 1.3.1 Activated Carbon in Drinking Water Treatment; 1.3.2 Activated Carbon in Wastewater Treatment; 1.3.2.1 Municipal Wastewater Treatment 1.3.2.2 Industrial Wastewater Treatment1.3.3 Applications of Activated Carbon in Other Environmental Media; 1.3.3.1 Remediation of Contaminated Groundwater and Soil; 1.3.3.2 Treatment of Flue Gases; 1.3.3.3 Water Preparation for Industrial Purposes; 1.3.4 Integration of Activated Carbon Adsorption with Biological Processes in Wastewater and Water Treatment; 1.3.4.1 Wastewater Treatment; 1.3.4.2 Water Treatment; 1.3.5 Improved Control of Pollutants through Integrated Adsorption and Biological Treatment; 2: Fundamentals of Adsorption

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3.2.2 Main Interactions between Organic Substrates, Biomass, and Activated Carbon

## Sommario/riassunto

This monograph provides comprehensive coverage of technologies which integrate adsorption and biological processes in water and wastewater treatment. The authors provide both an introduction to the topic as well as a detailed discussion of theoretical and practical considerations. After a review of the basics involved in the chemistry, biology and technology of integrated adsorption and biological removal, they discuss the setup of pilot- and full-scale treatment facilities, covering powdered as well as granular activated carbon. They elucidate the factors that influence the successful