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Nota di contenuto	Functional Nanostructured Materials and Membranes for Water Treatment; Contents; Foreword; Series Editor Preface; Acknowledgments; About the Series Editor; About the Volume Editors; List of Contributors; 1 Target Areas for Nanotechnology Development for Water Treatment and Desalination; 1.1 The Future of Water Treatment: Where Should We Target Our Efforts?; 1.2 Practical Considerations for Nanotechnology Developers; 1.3 The Water Treatment Market for New Nanotechnology; 1.4 Purpose of This Book; 1.5 Concluding Remarks; References; 2 Destruction of Organics in Water via Iron Nanoparticles 2.1 Introduction2.2 Nanoparticles as Catalysts; 2.2.1 Colloidal Nanoparticles; 2.2.2 Supported Nanoparticles; 2.3 Advanced Oxidation Processes; 2.3.1 Fenton-Like Reactions; 2.3.1.1 Iron Oxide as Heterogeneous Nanocatalyst; 2.3.2 Photo-Fenton Reactions; 2.3.3

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Sommario/riassunto

With its emphasis on the application of nanotechnology to improve water treatment processes, this ready reference and handbook addresses the real needs of scientists and others working in the industry. It thus covers materials ranging from ceramic membranes, to functional nanoparticles, carbon nanotubes, and biological materials, as well as theoretical aspects.Each chapter is written by leading international experts in the field, examining in detail desalination, adsorption, filtration, the destruction and conversion of pollutants, as well as the monitoring of water quality, while discussi