

Preface

Nanomaterials exhibit more remarkable properties than other conventional materials in numerous areas of interest including the environmental remediation. Graphene oxide is a smart nanomaterial which can be employed in this field due to its physical chemical properties. In the last decade, the possible application of graphene oxide in the production of nanocomposites, for example, in electronic devices, or starting materials for pristine graphene has been objected of discussion. Recently, graphene oxide is figured out as a promising material in environmental applications. This book covers the current investigations on the implementation of graphene oxide as a sorbent material for removal technology. Chapter 1 begins with the state of the art of graphene oxide for novel adsorbent materials. Chapter 2 briefly illustrates the methods for wet synthesis of graphene oxide. The properties of this material are showed in the second part of this chapter describing the spectroscopic and topographic characteristics. In the last part, the models of the structure of graphene oxide are reported. Chapter 3 covers the environmental aspects from the point of view of regulation with particular attention for European area. Chapter 4 summarizes the latest finds on removal of contaminants from water systems. Chapter 5 addresses the conclusion and future potential use of graphene oxide in advanced removal technology.

The authors thank Prof. P. Colombo (University of Padova, Italy), Prof. A. Maddalena, Dr. AC. Nale (University of Padova, Italy), Dr. T. Masullo (CNR, Italy), Dr. A. Cuttitta (CNR, Italy), Dr. F. Busolo (Ordine dei Chimici) for collaboration on the graphene oxide and related projects. We also deeply thank Dr. Mayra Castro in Springer for inviting us to write this book and for many helpful advices during the preparation of this book.

Padova, Italy
Palermo, Italy
April 2017

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Graphene Oxide in Environmental Remediation Process

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2017, VII, 52 p. 20 illus., 19 illus. in color., Softcover

ISBN: 978-3-319-60428-2