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Soggetti	Engineering—Materials Inorganic chemistry Ceramics Glass Composites (Materials) Composite materials Materials science Fossil fuels Energy efficiency Materials Engineering Inorganic Chemistry Ceramics, Glass, Composites, Natural Materials Characterization and Evaluation of Materials Fossil Fuels (incl. Carbon Capture) Energy Efficiency
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1. Carbon, the Black, the Gray and the Transparent -- 2. Historical Production and Use of Carbon Materials----The Activated Carbon -- 3. Historical Production and Use of Carbon Materials- (Carbon Composites) -- 4. Historical Production and Use of Carbon Materials- (polymers) -- 5. Coal, the Black Carbon -- 6. Carbon, the Gray (Graphite) -- 7. (Graphene) -- 8. (Carbon Nanotubes, CNTs) -- 9. The Transparent Carbon---the Diamond -- 10. Fullerenes.

## Sommario/riassunto

All living things contain carbon in some form, as it is the primary component of macromolecules including proteins, lipids, nucleic acids (RNA and DNA), and carbohydrates. As a matter of fact, it is the backbone of all organic (chemistry) compounds forming different kinds of bonds. Carbon: The Black, the Gray and the Transparent is not a complete scientific history of the material, but a book that describes key discoveries about this old faithful element while encouraging broader perspectives and approaches to its research due to its vast applications. All allotropes of carbon are described in this book, along with their properties, uses, and methods of procurement or manufacturing. Black carbon is represented by coal, gray carbon is represented by graphite, and transparent carbon is represented by diamond.

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