Fullerenes—a guide to the current state of knowledge in the field

The last decade has seen an explosion of research into the chemical and physical properties of a promising new class of carbon-based materials known as fullerenes.

Karl Kadish and Rodney Ruoff, two highly recognized leaders in the fullerene and nanotube research community, edit a comprehensive and much-needed survey of this important and rapidly evolving field. Contributions by experts in diverse areas of chemistry, physics, pharmacology, materials science, and chemical engineering provide an excellent introduction to fullerenes and highlight their considerable potential in such cutting-edge applications as semiconductor materials, new pharmaceutical compounds, and polymers. From the electrochemistry of fullerenes to molecular and solid C36, this book offers a remarkably fresh and authoritative look at some of the hottest research topics today, including:

* Organic functionalization of fullerenes

* Photophysical properties of different types of fullerenes

* Polyfunctional polymer derivatives of fullerenes

* The theory and production of endohedral metallofullerenes

* Fullerene surface interactions
* Superconductivity in fullerenes

* Synthesis of materials incorporated within carbon nanotubes

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