Record Nr. UNINA9910346859403321 Autore Morais Simone **Titolo** Multi-Walled Carbon Nanotubes MDPI - Multidisciplinary Digital Publishing Institute, 2019 Pubbl/distr/stampa **ISBN** 3-03921-230-3 Descrizione fisica 1 electronic resource (184 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Since their discovery, multi-walled carbon nanotubes (MWCNTs) have received tremendous attention due to their unique electrical, optical, physical, chemical, and mechanical properties. Remarkable advances have been made in the synthesis, purification, structural characterization, functionalization, and application of MWCNTs. Their particular characteristics make them well suited for a plethora of applications in a number of fields, namely nanoelectronics, nanofluids, energy management, (electro)catalysis, materials science, construction of (bio)sensors based on different detection schemes, multifunctional nanoprobes for biomedical imaging, and sorbents for sample preparation or removal of contaminants from wastewater. They are also useful as anti-bacterial agents, drug delivery nanocarriers, etc. The current relevant application areas are countless. This Special Issue presents original research and review articles that address advances, trends, challenges, and future perspectives regarding synthetic routes, structural features, properties, behaviors, and industrial or scientific

applications of MWCNTs in established and emerging areas.