



Advances in Carbon Nanotubes: Preparation, Properties and Applications

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Message from the Guest Editor

Nanomaterial research is recognized as a discipline of great importance, which will influence new ways of designing, producing and even living, generating a great impact on society. Carbon nanotubes represent an important class of nanomaterials. The latter are very small tubes, with a diameter as small as a nanometer whose wall is made up of carbon atoms that form a hexagonal mesh. Thanks to their peculiar chemical–physical characteristics, carbon nanotubes have proven to be extremely competitive in various sectors and application contexts and, in the future, they will increasingly influence the development of many sectors such as biology, medicine, materials sciences, and engineering. The extraordinary electronic, mechanical, optical, and chemical properties have stimulated extensive research activities around the world since their discovery in 1991. The applications of carbon nanotubes are truly vast: nanoelectronics, chemical sensors, biosensors, acoustic devices, artificial muscles, detectors, etc. Carbon nanotubes are highly promising in the sector of environmental protection, such as in water purification.





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Message from the Editor-in-Chief

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