



Emission Characteristics and Properties of Carbon Nanotube Cathodes

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Message from the Guest Editor

Carbon nanotubes (CNT) are structures made of carbon often with a diameter in the range of 10 to 100 nm. CNTs have demonstrated exceptional electrical, optical, and thermal properties; in addition, they also have remarkable tensile strength. CNTs are generally divided into two classes, single wall nanotubes (SWNT) and multiwall nanotubes (MWNT). SWNT consists of a single roll of graphene and MWNT comprises multiple rolled layers of graphene stacked in a concentric configuration. The two most common lattice structures of CNTs are zigzag and armchair, which result in drastically different properties. CNTs have the potential to serve as the next-generation cathode material due to their exceptional electrical and thermal conductivity. We are assembling a Special Issue of *Coatings* to encourage researchers to publish their novel ideas and studies on using CNT for advanced cathode development.





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

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