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Special issue title:

Recent Advances in the Modelling of Nanotubes within Nano-Structures/Systems

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Among the potential advanced materials for the next generation of miniaturized nano devices, and thanks to their outstanding electromechanical properties, nanotubes have been one of the cutting edge area within the nanotechnology research for the past two decades. Recent endeavor in the modelling and simulating nanotubes would result into better understanding of their physio-mechanical behaviors at the nano-scale. To this end, analytical, computational, and experimental approaches have been considered and examined by many scholars to comprehensively shed light on the development of such structures as a rapidly growing frontier in the nanomechanics field. In addition, thanks to their small sizes, nanotubes do possess incomparable behavior in comparison with their equivalent counterparts, such as the bulk material. They do impact as well several applications in the nano-scale with unique characteristics including high sensitivity, great reliability, excellent thermal conductivity, low power consumption, faster response, etc....

Topics covered include but are not limited to the modelling and simulation of nanotubes in the following emerging areas/applications:

- CNT-based MEMS/NEMS
- Modelling of micro/nanofluid systems
- Field emission devices
- Drug delivery systems
- Reinforced composite materials
- Shape memory nanocomposites
- Biomaterials and biodevices
- Hybrid Nanotubes
- CNT/concrete blends
- Optical power detectors
- Nanotube field-effect transistors
- Thermal management of electronic circuits
- Carbon nanotubes in photovoltaics
- Carbon nanotubes in interconnects
- Fuel cells for energy storage
- Nanoscale electric motors
- Nanoscale capsules

Notes for Authors

Submitted papers should be written in English, carefully double-checked for correct grammar/spelling and should not have been previously published or under consideration for publication in the same form elsewhere. In the meantime, the manuscripts should not be submitted anywhere else for publication prior to acceptance/rejection by this special issue. The corresponding author accepts the responsibility of releasing the material on behalf of all co-authors. All papers are subject to a peer reviewing procedure.

All papers must be submitted online via the following ScholarOne Manuscript Central platform:

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Please read the Author Guidelines page at:

<https://onlinelibrary.wiley.com/page/journal/10991476/homepage/forauthors.html>

Important Dates

Deadline for manuscript submissions: August 31, 2020

First round of reviews: October 31, 2020

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