Journal of Chemistry

Special Issue on
Synthesis of Nanodevices for Drug Delivery Applications

CALL FOR PAPERS

The development of nanoscale drug delivery systems has experienced an explosive growth in the last decades. Due to their small size (10 to 200 nm), nanodevices can penetrate into and even target regions and sites inaccessible to other delivery systems.

These devices include, among others, core-shell nanoparticles, nanogels, liposomes, phospholipids-based vesicles, microemulsions, polymeric micelles, polymersomes, dendrimers, nanotubes, and quantum dots. The common aim of these devices is to deliver drugs in a more efficient way than conventional drug carriers.

Nanotechnology-based drug delivery systems intended to treat diverse diseases are being developed worldwide and represent a novel family of carriers that may remarkably increase the therapeutic efficacy, improving the patients´ compliance and their quality of life.

This special issue is intended to present and discuss breakthrough developments in the synthesis/preparation of nanodevices for drug delivery applications which are expected to revolutionize the field and contribute to better treatment of diseases, in order to improve the quality of human health. Particularly, this issue is expected to attract contributions about novel approaches to the synthesis of nanodevices being able to overcome biobarriers for the target specific delivery of therapeutic drugs as well as achieving substantial reduction of deleterious side effects. The issue also seeks novel combinations of multifunctional and stimuli-responsive components. Further, novel tools for the rational design of nanocarriers that are able to face up specific requirements are highly demanded. Therefore, papers devoted to the analysis/modelling of critical steps in the synthesis and in the performance of the nanocarriers are welcome.

Potential topics include, but are not limited to:

- Dendrimers, nanotubes, and quantum dots as carriers for drug delivery
- Core-shell nanoparticles, miniemulsions, and microemulsions applied to drug delivery
- Polymeric micelles and polymersomes
- Stimuli-responsive nanocarriers for drug delivery

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/jchem/materials.chemistry/sndda/.

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