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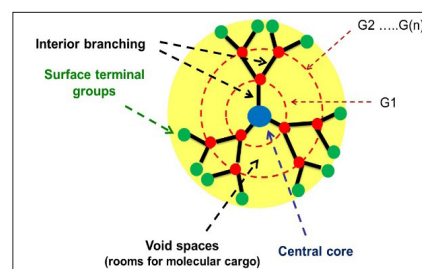
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New drug-loaded phosphorus dendrimers: Synthesis, characterization and biological evaluation

Nabil El Brahmi

Euro-Mediterranean University of Fes, Morocco

Dendrimers are monodispersed nanosized polymeric molecules composed of a large number of perfectly branched monomers. The versatile chemical composition of dendrimers strongly offers a variety of applications in different areas such as for instance: Chemistry, catalysis and medicine. Currently, the potential of using dendrimers as nano-carriers for drug delivery is revolutionizing medicine by improving the efficiency and reducing the toxicity of various treatments. Dendrimers can form either covalent or non-covalent (encapsulation) bonds with bioactive molecules. In the case of covalent bond, drug can be directly attached to dendrimer or via a linker-cleavable or not and the resulting drug-loaded dendrimer can act as a nano-vehicle for drug transport and controlled release. We will present the synthesis and characterization of original functionalized phosphorus dendrimers (generations G1 to G3) containing various functional groups on their peripheries such as arene-copper(II) and ethacrynic acid moieties. Also, we will report the studies of the very interesting cytotoxic activities against different solid and liquid cancer cell lines of these new dendrimers.



Biography

Nabil El Brahmi has obtained his MSc in Pharmaceutical Chemistry from the University Mohamed V, Morocco. Later, he had received his PhD in Organic Chemistry from the same university in collaboration with the Laboratoire de Chimie de Coordination at CNRS of Toulouse, France. Further, he has also worked as a Postdoctoral Fellow at the Euro-Mediterranean University of Fes, Morocco in collaboration with the LCC and later was appointed as an Assistant Professor at the UEMF. His current research interests are the synthesis of bioactive molecules and drug delivery.

n.elbrahmi@ueuromed.org

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