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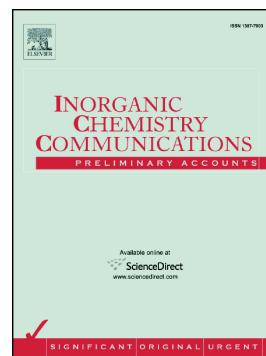
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Recent Advancements in DNA Interaction Studies of Organotin(IV) Complexes

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Abstract

DNA interaction studies of organotin(IV) complexes have got tremendous attention during the recent years due to their anticancer and antitumor properties. Most of the chemotherapeutic organotins are DNA-targeted as they recognize specific DNA sequences, alter the local DNA structure, inhibit access to the activator or repressor protein and ultimately affect the gene expression process. The binding ability of organotin(IV) compounds with DNA depends on the coordination number and the nature of organic group attached to the central tin atom. In this review, articles available from 2005 onwards have been summarized to get the latest update on the development of organotin compounds having interaction with DNA for understanding the molecular mechanism of drug action and development of new robust DNA-targeted chemotherapeutic drugs.

Keywords: Organotin; DNA-interaction; Anticancer; Potential drug; Chemotherapeutic.

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