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COMPARATIVE STUDY ON CALIXARENES IN DRUG ENCAPSULATION AND DELIVERY

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Abstract:

Calixarene, a macrocyclic compound which was discovered as the by-product from the condensation of phenol-aldehyde, satisfied the requisite in the development of drug designing and synthesis of biological compound. Their basic molecular structure has high potential in molecule and ion recognition which allow maximum interaction between host molecules and guest molecules. The presence of hydrophobic cavities that hold the capability to hold small ion or molecules allow the encapsulation of guest drug. The potentials that calixarenes have shown in biomedical field through diversified the features and structures, give rise to wide application in drugs delivery. This paper reviews the applications of calixarenes in drug encapsulation and delivery.

Keywords:

Macrocyclic compound, Hydrophobic cavities, Drug encapsulation, Drug delivery