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Study to explore subsistence of host-guest inclusion complexes of significant drug molecules with α and β -cyclodextrins and their applications in pharmaceutical science

Host-guest inclusion of two drugs, phenylephrine hydrochloride and synephrine with α and β -cyclodextrins and their applications in biological Sciences have been investigated by physicochemical and microbiological approach. Phenylephrine hydrochloride (PEH) is a selective α 1-adrenergic receptor agonist of the phenethylamine class used primarily in cold and flu conditions as an antipyretic, analgesic drug to relief pain. Alkaloid synephrine (SNP) was first extracted as a natural product from

the leaves of various citrus trees is used as bronchial muscle reluctant, increases blood pressure in the patients suffering from low blood pressure. Formation of Host Guest Inclusion complexes of PEH and SNP with the CDs have increased the activities of the drugs concerned and controlled the dose for regulatory dischargement i.e. the drugs can be released as per requirement of the patient to avoid the side effects which have been explored in this research paper.

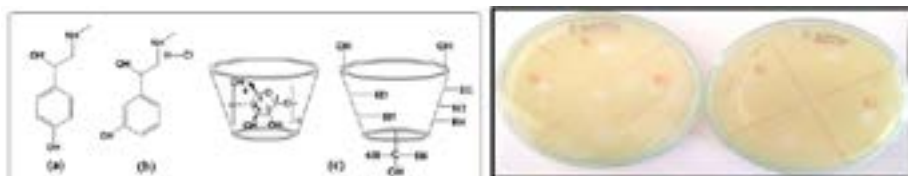


Figure 1: Probable host guest inclusion complexes and their antimicrobial activities.

Biography

Mahendra Nath Roy is a senior Professor in the Department of Chemistry and Chairman of Sports Board, University of North Bengal, India. His research interests are in the areas of host-guest inclusion complexes and solution thermodynamics. He has supervised 38 PhDs reviewed 36 PhD theses and many referred research papers and authored over 302 research articles and books in Chemistry. He has received the award of one time grant under basic scientific research from University Grants Commission, "Prof. Suresh C. Ameta Award" from ICS, "Bronze Medal 2017" from CRSI and Shiksha Ratna Award from the Government of West Bengal, India.

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