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SYNTHESIS OF NEW MODIFIEDS CYCLODEXTRINS AS PHARMACEUTICALS VECTORES

Assia Keniche[1,2], Malti Ibtissem[2], Si Said Mohammed El Amine[3], Joseph Kajima Mulengi[3]

keniche_assia@yahoo.fr

1: PhD of Bioorganic and Therapeutic Chemistry, Maghnia Center University, Tlemcen, Algeria
2: Laboratory of Organic Chemistry, Natural Products and Analysis University of Tlemcen, Algeria
3: Faculté des Sciences, University of Tlemcen, Algeria

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ABSTRACT

Objective: The aim of this study was to synthesize new modified Cyclodextrins (CDs), for study of inclusion complex of drug with CD to improve water solubility.

Methods: In this study, the formulation of bioactive molecules (Baclofen®, aziridine synthesis and active propolis) with amphiphilic cyclodextrin (β-CD-amph) was prepared from native β-cyclodextrin (β-CD) via the simple co-precipitation method at the University of Tlemcen, Algeria (2016).

Results: It was of interest to find a model of molecule derivatives that would be sufficiently water-stable and form a stable complex with (β-CD-amph) in aqueous medium, so that it could be used as a reference in future formulations or vectorization work. Among the nanoformulation, NMR studies of the inclusion complex of this derivative with b-cyclodextrin provided useful parameters related to the stoichiometry of the complex and the association with stant Ka.

Conclusion: The geometry of the complex was assessed by 2D-ROESY experiments, suggesting a deep insertion of the guest into the cavity of (β-CD-amph).

KEYWORDS: Cyclodextrin, Bioactive molecules, Baclofene®

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