

CYCLOHEXANE AS AN IONOPHORE

G. NARESH PATWARI, and JAMES M. LISY, *Department of Chemistry, University of Illinois at Urbana Champaign, Urbana, IL 61801.*

Several molecules based upon 1,3,5-triaxially substituted cyclohexane templates have shown promising results as ionophores. More importantly, in the case of Li^+ , cyclohexane is a more selective ionophore than the traditional 12-Crown-4 macrocyclic ether. In order to understand the effect of the alkali metal ion binding to cyclohexane, the infrared spectra of Li^+ , Na^+ , and K^+ ions complexed with cyclohexane were recorded in C-H stretching region. The effect of the ion binding on the C-H stretching vibrations will be discussed.