CYCLOHEXANE AS AN IONOPHORE

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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.