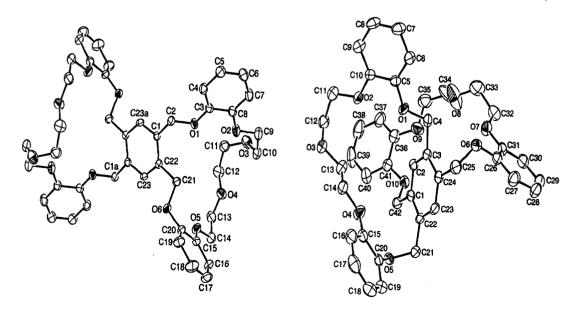
## Crystal Structures of ortho and para-Xylyl dibenzo-bis-crown ethers

Wonbo Sim, Jai Young Lee, Jong Seung Kim, Geum-Hong Choo<sup>a</sup> Jin-Gyu Kimb and Il Hwan Suhb

Department of Chemistry, Konyang University, Nonsan 320-711, Korea. Korea university of Technology and Education, Cheonan P.O. Box 55,330-800 Korea Department of Physics, Chungnam National University, Taejon 305-764, Korea<sup>b</sup>

We now report the preparation of new crown ethers 1 and 2 referred to as the common-nuclear biscrown ether bearing a benzene ring. ortho-Xylyl dibenzo-bis-crown ether (1) was prepared from the reaction of 1,2,4,5- tetra kis(bromomethyl)benzene and 1,8-bis(2-hydroxyphenoxy)-3,6-dioxaoctane regardless of base species that we have attempted. Interestingly, however, reaction of tetrakis(bromomethyl)benzene with 1,5-bis(2-hydroxyp hen oxy)-3-oxapentane in the presence of cesium carbonate gave para-xylyl dibenzo-bis-crown ether (2) in good yield, of which the <sup>1</sup>H and <sup>13</sup>C NMR spectra were consistent with the crystal structure. This unexpected product 2 could be formed by an assumption that the cyclization is facilitated by Cs-p interaction based on the template effect between core-benzene and cesium cation. Meanwhile, for 1, the Cs-p interaction would be excluded probably because the distance between core-benzene and cesium cation is not expected to be sufficient enough when it forms para-xylyl product. The crystal structure will be presented in detail.



ortho-Xylyl dibenzo-bis-crown ethers(1) para-Xylyl dibenzo-bis-crown ethers(2)