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**On Molecular Capsules Obtained From Calix[4]resorcinarene.** O. Ugono, K. T. Holman,\* Dept. of Chemistry, Georgetown Univ., Washington, DC 20057 USA, oou@georgetown

Self-assembled molecular capsules have been the subject of much recent research related to their ability to act as hosts for suitable guests. One theme of our research is directed at the assembly of molecular capsules, nano containers of sorts, from calix[4]resorcinarenes and other components. Co-crystallization of 1 and tetraethyl ammonium chloride yielded a chloride mediated capsule with an encapsulated alkyl ammonium cation. The capsule is held together by 8 OH---Cl<sup>-</sup> intermolecular hydrogen bonds. Complexes of 1 and other alkyl ammonium salts have been obtained. Alcohols have been shown to assist in the construction of similar molecular capsules, wherein calix[4]resorcinarene units are held in place by hydrogen bonds between the respective components. An array of similar containers and other interesting structures have been obtained by the co-crystallization of alcohols and resorcinarenes such as 1. The solid state structures and solution studies of these capsules will be presented.

