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**From Covalent Synthesis to Supramolecular Assembly: The Investigation into Cavitand- Based Host-Guest Architectures.** N. Schultheiss, C.B. Aakeröy, J. Desper, Kansas State Univ., Manhattan, KS 66506 USA.

Cavitands are excellent receptors for use in host-guest chemistry due to their bowl-shape framework and a variety of covalent modifications can also be applied to both the upper and lower rims. Furthermore, the construction of cavitand-based capsules with tunable internal metrics allows for the encapsulation of specific sized guests. Accordingly, various pyridyl-functionalized cavitands were synthesized in good yields, by means of palladium catalyzed cross-coupling reactions. Through single-crystal X-ray analysis it has been shown that each of the derivatized cavitands exhibits an ability to accommodate guest molecules by way of multiple intermolecular interactions.