Diazadioxacyclophanes

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Z. Naturforsch. **2008**, *63b,* 1204 – 1210; received June 23, 2008

Six new cyclophane molecules (**5** – **10**) were synthesized from α,α'-bis(*N*-tosyl-4-aminophenyl)-1,4-diisopropylbenzene and α,α'-bis[4-(*n*-bromoalkyloxy)phenyl]-1,4-diisopropylbenzene. The crystal and molecular structures of α,α'-bis(4-aminophenyl)-1,4-diisopropylbenzene (**3**), α,α'-bis (*N*-tosyl-4-aminophenyl)-1,4-diisopropylbenzene **4** and the ditosyl derivative of the diazadioxacyclophane **6** were determined. The noncyclic compounds **3** and **4** display the *anti* conformation. Diazadioxacyclophane **6** possesses a central cavity that might be exploited to accommodate guest molecules, but some conformational change would probably be required.

Key words: Diazadioxacyclophane, Solid-state Structure, C–H$\cdots\pi$ Interactions