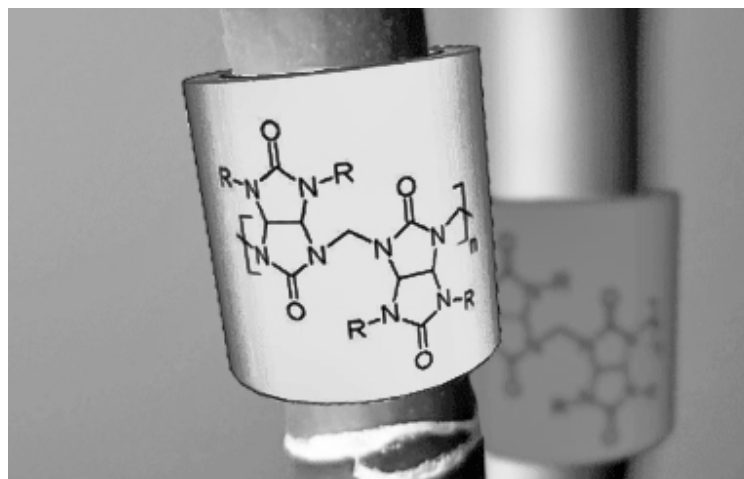


## Nitrobenzylbambusurils

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Glycoluril is a bicyclic molecule used as building block in two classes of synthetic macrocyclic receptors called cucurbiturils<sup>1</sup> and bambusurils<sup>2</sup>. Cucurbiturils are known for their molecular recognition of cations, whereas bambusurils are valuable for the strong complexation of anions. At this conference, we will present a selective preparation leading to the new type of bambusurils, namely nitrobenzylbambusurils. Nitrobenzylbambusurils are macrocycles formed by 2,4-disubstituted glycoluril units linked with methylene bridges. This structural feature determines bambusurils for the complexation of anions due to hydrogen bonding between methine hydrogen atoms of the macrocycle and encapsulated anion. Depending on the reaction conditions we are able to isolate nitrobenzylbambusurils with different sizes. The potential use of nitrobenzylbambusuril is not only in the complexation of anions, but also in the further modification of nitrobenzyl-groups giving us broader extension of bambusuril family.



**Figure 1.** Substituted bambusuril, R = nitrobenzyl group.

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<sup>2</sup> Havel, V.; Svec, J.; Wimmerova, M.; Dusek, M.; Pojarova, M.; Sindelar, V. *Org. Lett.* **2011**, *13*, 4000–4003.

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