

THE NEW POSSIBILITIES FOR THE SYNTHESIS OF RESORCINARENE DERIVATIVES

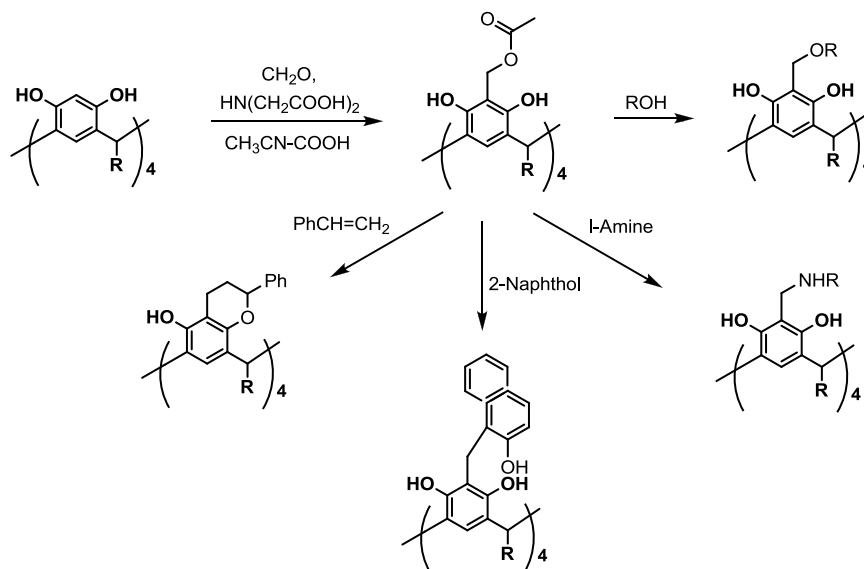
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Resorcinarenes belong to a group of macrocyclic compounds, which increases interest in the past several years. This can be attributed, i.a. the construction of cavity as well as ease of modification of both hydroxyl groups and the "ortho" position. There has been more and more examples of their applications, among others, such as: chromatographic phases, lithography, materials of electrodes, receptors, tumor markers, differentiation chiral factors. Although progress towards a variety of applications in this group of compounds is becoming more visible, are also developed new methods of synthesis of this group of compounds.

In our group, at the University in Kielce, are developed methods of synthesis of these compounds and test their potential applications. In the study of research on the methods of functionalization "ortho" position, developed interesting and innovative method for synthesis of a variety resorcinarenes by catalytic Mannich reaction[1-3].

The following scheme shows one such possibility. It involves the synthesis of benzyl acetate derivative of resorcinarene and use of its reactivity with alcohols, amines, 2-naphthol and styrene.



References:

1. Urbaniak M., Iwanek W., *Tetrahedron*, **62**, 1508 (2006).
2. Urbaniak M., Mattay J., Iwanek W., *Synth. Commun.*, **38**, 4345 (2008).
3. Urbaniak M., Mattay J., Iwanek W., *Synth. Commun.*, **5**, 670 (2011).