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# RECEPTORS FOR BIOMOLECULES BASED ON NEW CATIONIC AND ANIONIC CALIX[4]ARENE AMPHIPHILES

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Calixarenes are an essential part of supramolecular chemistry [1]. Their ability to form "host-guest" complexes was successfully used in selective extractants, receptors and sensors [2, 3]. Application of calixarenes can be significantly enhanced by using click reactions. Azide- or terminal alkyne functionalities can essentially extend the synthetic potential of calixarene platform by using of the copper-catalyzed azide-alkyne cycloaddition (CuAAC).

Herein, we have developed a new methodology for the synthesis of amphiphilic calix[4]arene derivatives bearing two or our lipophilic alkyl fragments on the lower rim and polyammonium/sulphonate fragments – on the upper rim (Fig.1). The aggregation behaviour of these compounds in water-buffer solutions is discussed. Obtained calixarenes were used for sensing of biomolecules using dye – displacement procedure.

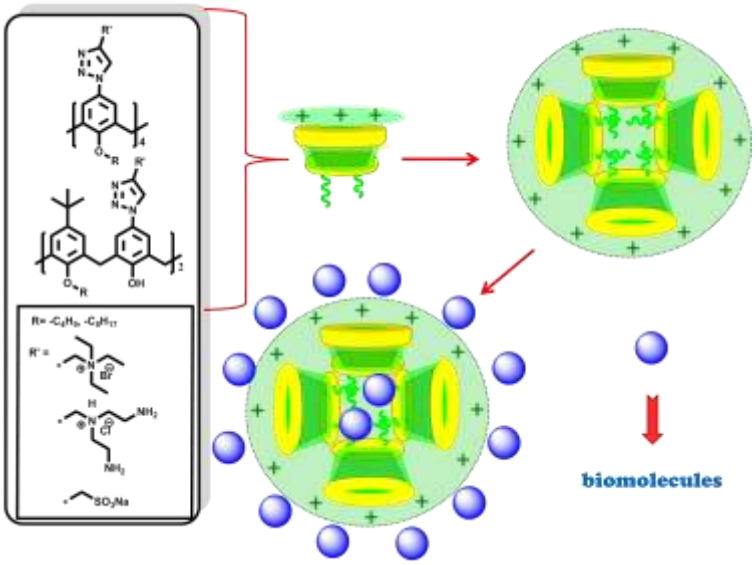


Figure 1.

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References:

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[3] R. Ludwig, N. Dzung, Sensors, **2** (2002) 397.