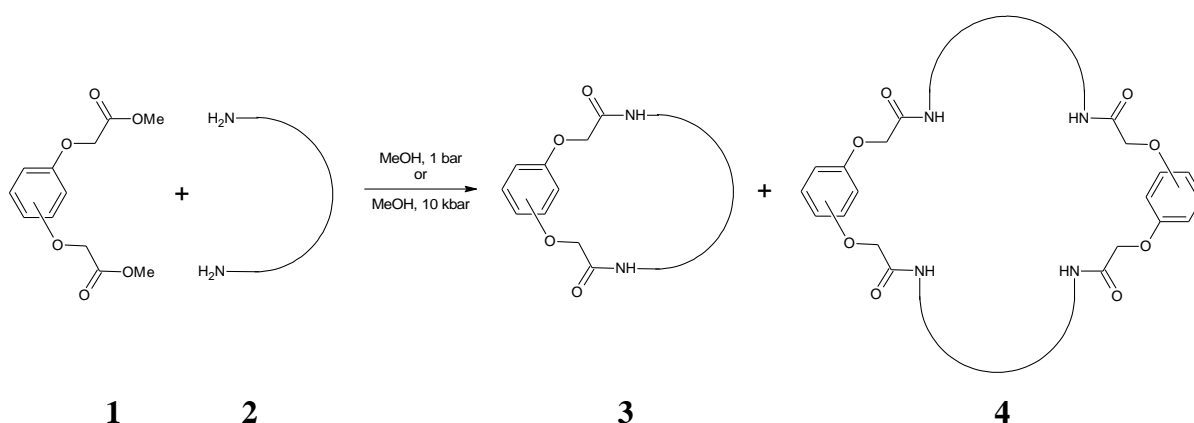


Static combinatorial chemistry: macrocyclization via high pressure double-amidation reactions

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Supramolecular chemistry has been increasingly developed during last 50 years. Since Pedersen's discovery,¹ there has been growing interest in synthetic macrocyclic molecular receptors. The most specific feature of these compounds is their complexing behaviour. It was soon recognized that they form stable complex with a wide range of inorganic and organic cations as well as with uncharged molecules.² Therefore, studies aimed at rational design and synthesis of more structurally elaborated macrocycles with desired complexing properties are well advanced.³ We found⁴ that methyl α,ω -dicarboxylates of type **1** reacts under ambient conditions with α,ω -diaminoalkanes of type **2** in methanol to afford a mixture of macrocyclic diamides **3** and tetramides **4** in good yields (Scheme).



Scheme

Deciding to continue this research we turned our attention on the influence of high pressure on the results of the macrocyclization reaction, which will be presented in this poster.

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