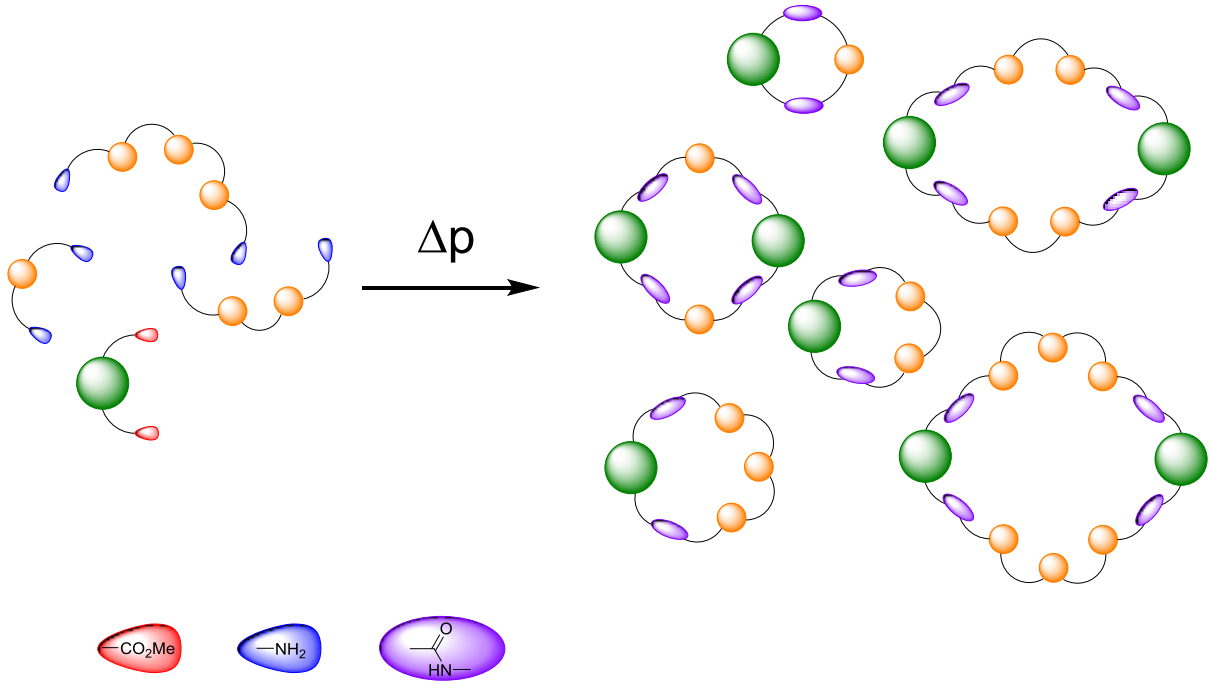
Static combinatorial chemistry as the synthetic method towards macrocyclic receptors of cations and anions

Mgr inż. Grzegorz Pikus

Supervisor: Prof. Janusz Jurczak

In my PhD reaserch I have focused on studying the macrocyclization process of methyl dicarboxylic esters with α,ω-diamines *via* double-amidation reactions (ICHOPAN II), using methodology of combinatorial chemistry in terms of its static version (SCC). In general I decided to compare the composition of static combinatorial libraries and study the competition between substrates in two-, three- and four-substrate libraries under atmospheric as well as high pressure (10 kbar). My research was conducted with application of high-preformance liquid chromatography, which allowed to precise the qualitative and quantitative analysis, supported by the referential libraries and the calibrated UV-Vis detector.



I have been doing my research in a rapidly growing area of supramolecular chemistry, that is why, I decided to expand my thesis on the synthesis of anion-binding receptors, based on 1,1'-*bi*-2-naphtole, and to study their properties in chiral recognition of chosen α-amino- and α-hydroxyacids.