Molecular selectivity by host-guest procedures is a method which can be applied to the separation of enantiomers. The resolution of methycyclohexanones (MCH) by enclathration has been studied using a variety of chiral hosts 1,2. For the analysis reported here, deoxycholic acid (DCA) was used as a host to separate and resolve the different isomers of (MCH) whose normal boiling points range from 162 to 169°C. Competition experiments of these isomers resulted in a preference of DCA towards 2MCH with the following trend 2MCH > 3MCH > 4MCH. This trend was then confirmed by differential scanning calorimetry results. Additionally, DCA resolved 2MCH by enclathrating the S-conformer, but 3MCH remained unresolved. However, competition experiments of rac-2MCH/rac-3MCH resulted in both guests been resolved yielding to (S)-conformers, this suggested that 2MCH had a templating effect on the final structures. This was then proven along a selectivity curve of 2MCH vs 3MCH with 2MCH mole fraction varying from 0 to 1. This is shown in figure 1.

![Figure 1](image_url)  
**Figure 1.** Competition experiment of 2MCH vs 3MCH with S-enantiomer represented in red while the R-enantiomer is represented in blue.
