## SYNTHESIS OF NEW CHIRAL MACROCYCLES FROM (2S)-2,3-DIAMINOPROPIONIC ACID

Kamini Mishra, Maria Fomitšenko, Riina Aav

Department of Chemistry and Biotechnology, Tallinn University of Technology, Akadeemia tee 15, 12618 Tallinn, Estonia
e-mail: kamish@ttu.ee

Hemicucurbit[n]urils (HCs) are macrocyclic structures consisting of N, N'-dialkylurea held together by methylene bridges. The HCs have been reported to act as anion channels, amino acid extracting agent, catalyst, and has found application in chiral recognition.[1] Chiral cyclohexanoHCs like cycHC[6] and cycHC[8] are soluble in organic solvents and selectively bind anions into their hydrophobic cavity.[2,3] In order to widen the scope of applications of chiral HCs and their use in different media, an attempt was made to synthesize new HCs from (2S)-2,3-diaminopropionic acid. Synthesis of methyl (S)-2-oxoimidazolidine-4-carboxylate and its use as a monomer for formation of new chiral HCs will be presented.

## Reference

- 1. N. Andersen, M. Lisbjerg, K. Eriksen, M. Pittelkow, 2018, Isr. J. Chem. 58, 435.
- 2. S, Kaabel, J. Adamson, F. Topić, A. Kiesil, E. Kalenius, M. Öeren, M. Reimund, E. Prigorchenko, A. Lõokene, H. Reich, K. Rissanen, R. Aav, 2017, Chemical Science, 8, 2184.
- 3. E. Prigorchenko, M. Öeren, S. Kaabel, M. Fomitšenko, I. Reile, I. Järving, T.Tamm, F. Topić, K. Rissanen, R. Aav, 2015, Chem. Commun. 51, 10921.

