

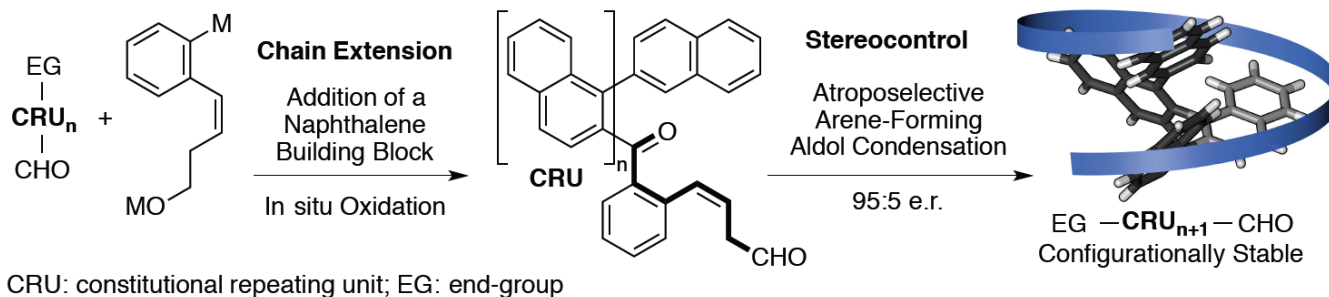
## Stereoselective Arene-Forming Aldol Condensation: Synthesis of Configurationally Stable Oligo-1,2-naphthylenes

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Structurally well-defined oligomers play a fundamental role in the function of natural systems, such as peptides or DNA. Synthetic counterparts, e.g. truncated helicenes, are often characterized by a low configurational stability and typically pose a substantial synthetic challenge.

The poster will outline our approach to the catalyst-controlled synthesis of oligo-1,2-naphthylenes. Based on the hindered rotation about the aryl-aryl single bonds, these oligomers show high configurational stability. For the efficient oligomer assembly, an building block addition approach was developed. An *in situ* double oxidation followed by a stereoselective arene-forming aldol condensation elongates the oligomer by one unit. The shape, such as the *P*-helix secondary structure is thereby transcribed from a chiral amine catalyst and excellent atropoenantio- and atropodiastereoselectivity of up to 95:5 was achieved.



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