

The objective of this Thesis was to find out whether it is possible to use [2+2+2] cyclotrimerization of aromatic nitriles for the synthesis of azahelicenes. This work deals with the preparation of tetrahydro-7-aza[5]helicene 76, 7-aza[5]helicene 23 and 7,8-diaza[5]helicene 77. The Theoretical Introduction mainly outlines the key methods for preparation of helicenes and azahelicenes, it also deals with the mechanism of [2+2+2] cyclotrimerization and the most common catalysts for this transformation are discussed. In the Results and Discussion and Experimental Part the synthesis of tetrahydro-7-aza[5]helicene 76, 7-aza[5]helicene 23 and 7,8-diaza[5]helicene 77 from the corresponding triynes is discussed.