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Bernard, Martin
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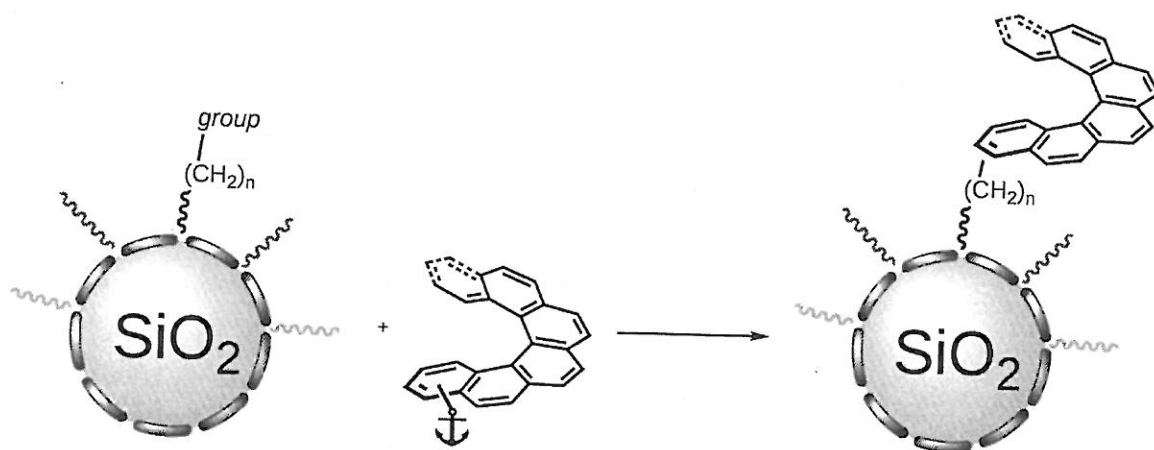
Synthesis of carbo- and heterohelicenes by photocyclisation for exploitation in chiral separation techniques

Student: Martin Bernard MSc.

Supervisor: Jan Sýkora Ph. D.

Supervisor-specialist: Jan Storch Ph. D.

Helicenes are inherently chiral *o*-condensed polyaromatic compounds with various potential applications such as chiral selectors in separatory techniques. Recently, we have developed multigram-scale synthesis of various helicenes¹ based on photocyclisation, some of them purposely derivatized² for *anchoring* on proper materials via covalent bond. There are commercially available spherical stationary phases of defined mesh, possibly surface and pores are modified by appropriate reactive *alkyl-group* chains that commonly undergo further *group* modifications. In the first phase we are running trials potentially leading to stationary phases modified with racemic helicenes. After optimization of proper techniques and processes, the following step will be production of stationary phases modified with enantiometrically pure helicenes and their testing for utilization in chiral HPLC.



References

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2. Žádný J., Velíšek P., Jakubec M., Sýkora J., Círka V. and Storch J.: Exploration of 9-bromo[7]helicene reactivity. *Tetrahedron* 2013, in press