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## **Chiral Stationary Phases Based on Silica Modified by Helicenes**

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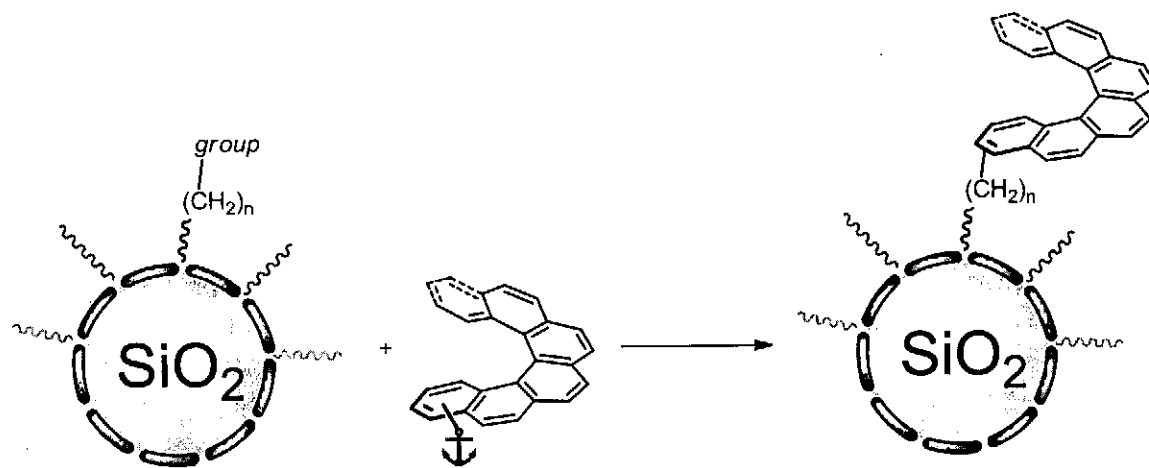
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## Chiral stationary phases based on silica modified by helicenes

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Helicenes are inherently chiral *o*-condensed polyaromatic compounds with diverse potential applications such as chiral selectors in separation techniques. We have developed multigram-scale synthesis of various helicenes<sup>1</sup> based on photocyclization, some of them purposely derivatized<sup>2</sup> for anchoring on proper matrices 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. Recently, we have run first trials potentially leading to stationary phases modified with racemic helicenes (preliminary results will be thoroughly discussed). After optimization of proper techniques and processes, the following step will be production of stationary phases modified with enantiomerically pure helicenes (scheme 1) and their testing for utilization in chiral HPLC.



Scheme 1

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1. Storch J., Církva V., Bernard M., Vokál J., Pat. No. 303997/PV 2012 – 245, applied: 12.04.11.
2. Žádný J., Velíšek P., Jakubec M., Sýkora J., Církva V., Storch J., *Tetrahedron* **2013**, 69(30), 6213-6218.