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Synthetic Pathways Leading to Phosphahelicenes.

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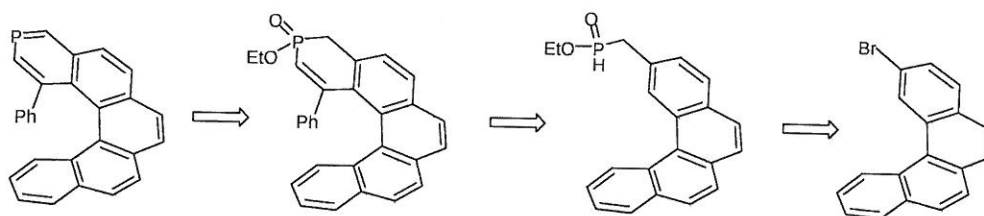
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Synthetic Pathways Leading to Phosphahelicenes

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Helicenes possess a helical conjugated polyaromatic system consisting of *ortho*-fused benzene rings as a fundamental property of these fascinating compounds. Due to this, they also exhibit interesting physico-chemical properties including P-type conductivity and enormous optical activity. Helicene chemistry is being considered as an expanding and modern field of research, leading to various applications, which can be further extended by the introduction of heteroatom directly into the helical skeleton^{1,2}. Very interesting seems to be the combination of the extraordinary properties of helicenes and phosphorus atom to form new types of phosphahelicenes. The goal of this work is to explore possible synthetic ways leading to these new members of the helicene family.



References

1. Gingras, M. *Chem. Soc. Rev.* **2013**, *42*, 1051–1095.
2. Aillard, P.; Voituriez, A.; Marinetti, A. *J. Chem. Soc., Dalton Trans.* **2014**, *41*, 15263–15278.