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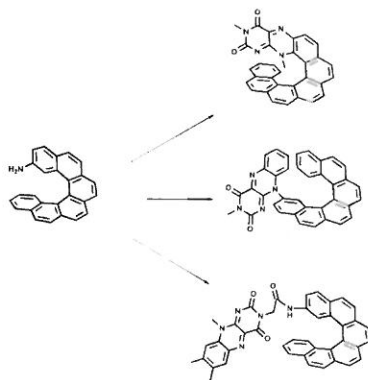
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Preparation of New Helically Chiral Flavins as Possible Photocatalysts

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Flavins are well known photoactive compounds, which were previously employed as catalysts and photocatalysts in various types of reactions, *i.e.* oxidations¹ or [2+2] photocycloadditions². Introduction of a chiral selector might induce enantioselectivity in reactions of suitable prochiral substrates. In this case, helicenes are used not only as chiral selectors, but also for their interesting optical properties.

The main goal of this work was to explore synthetic pathways leading to preparation of new helically chiral flavohelicenes (scheme 1). Several different structures with both flavin and helicene moiety can be prepared using 2-amino[6]helicene as a precursor. Some photo- and electrochemical properties were measured to determine the applicability of these compounds.



Scheme 1: Potential helicene-based flavins.



References

1. König, B.; Kümmel, S.; Cibulka, R. Flavin photocatalysis. In *Chemical Photocatalysis*, 1st ed.; König, B., Ed.; De Gruyter: Berlin/Boston, 2013; pp 45–66.
2. Mojr, V.; Svobodova, E.; Strakova, K.; Nevesely, T.; Chudoba, J.; Dvorakova, H.; Cibulka, R. *Chem. Commun.* **2015**, 51 (60), 12036–12039.

