Carbosilylations Applied to the Synthesis of Original Fluorescent Benzosilines

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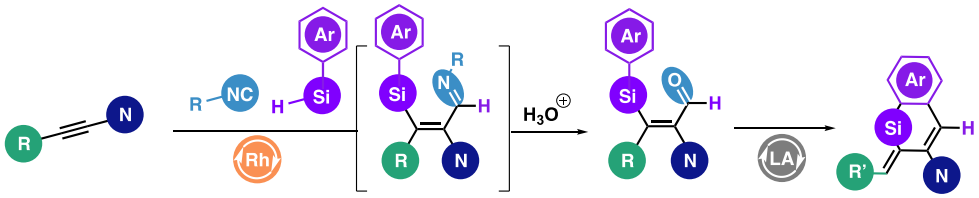
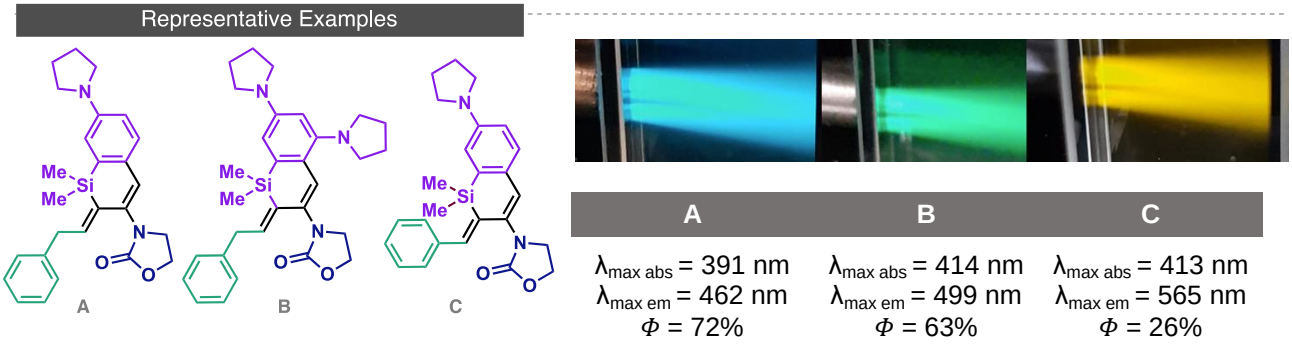
We recently developed the first silylformylation applied to ynamides for the synthesis of unprecedented tetra-substituted 2-amidoacroleins.[1] This reaction is fully regioselective and highly stereoselective for the *syn*-addition product (isomer *E*). Different functional groups on the ynamide, the silane and the isocyanide are tolerated leading to a high degree of diversity on the final compound. In the context of our interest in the synthesis of silaheterocycles,[2] we submitted these 2-amidoacroleins to a subsequent intramolecular Friedel-Crafts reaction leading to the formation of poly-functionalized amido-benzosilines. These molecules show some structural similarities with sila-rhodamines/fluoresceines and they exhibit interesting fluorescence properties that can be easily tuned by changing the electronic nature of the different substituents of the strating 2-amido-acroleins.[3]





References

[1] S. Golling, F. R. Leroux, M. Donnard, *Org. Lett.* **2021**, *23*, 8093–8097.

[2] P. Wagner, M. Gulea, J. Suffert, M. Donnard, *Chem. Eur. J.* **2017**, *23*, 7458–7462.

[3] S. Golling, V. Mazan, F. R. Leroux, M. Donnard, *manuscript under preparation*