SYNTHESIS OF NOVEL AZA-BODIPY DERIVATES FOR PHOTODYNAMIC THERAPY

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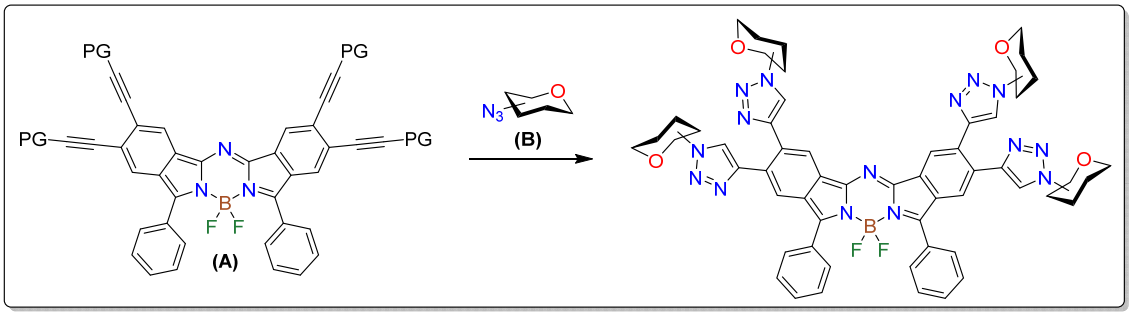
Photodynamic therapy has been of great interest over the past years. Our workgroup has previously published a number of promising third-generation photosensitizers, such as Phthalocyanines [1-3] and Porphyrazines [4].

Given that annulated aza-BODIPYs offer excellent photophysical properties [5], we established an accessible synthetic route to glycoconjugated aza-BODIPYs. For this, we used a triazole linkage to connect the benzoannulated aza-BODIPY core (A) with the carbohydrate moiety (B).



Using this strategy, it is possible to generate a wide variety of glycoconjugated aza-BODIPYs by variation of the applied carbohydrate-azides.

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[3] M. Bayer, F. Baechle, T. Ziegler, J. Carbhyd. Chem. **2018**, *6*, 347-369

[4] T. Klein, T. Ziegler, Tetrahedron Letters 2016, 57, 495–497.

[5] V. F. Donyagina, S. Shimizu, N. Kobayashi, E. A. Lukyanets, Tetrahedron Lett. 2008, 49, 6152–6154.