Self-assembly of cholane-pyrene oligomers

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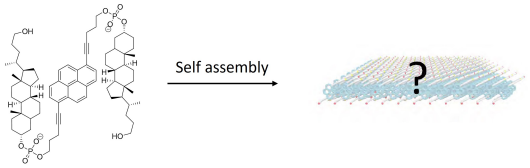
A growing interest for tunable nanoscale polymers has been observed in the past decade. The main interests are their ability to act as light-harvesting devices and their nonclassical optoelectronic behavior which find application in a variety of fields. It was previously shown that phosphodiester di-alkynyl-substituted pyrene trimers[1,2] allowed the formation of 2D supramolecular polymers. In this work, we have studied the possibility of replacing the polyaromatic residues present in the construct with cholane moieties. One pyrene unit was kept to investigate the photophysical properties of the oligomer. The aggregation process of the oligomer will be presented.



[1]: M. Vybornyi, A.V. Rudnev, S.M. Langenegger, T. Wandlowski, G. Calzaferri, R. Häner, *Angew. Chem. Int. Ed.* **2013**, *52*, 11488–11493.

[2]: M. Vybornyi, Y. Vyborna, R. Häner, *ChemistryOpen* **2017**, *6*, 488-491.