Electrostatic Layer-by-Layer Assembly of Supramolecular Polymers

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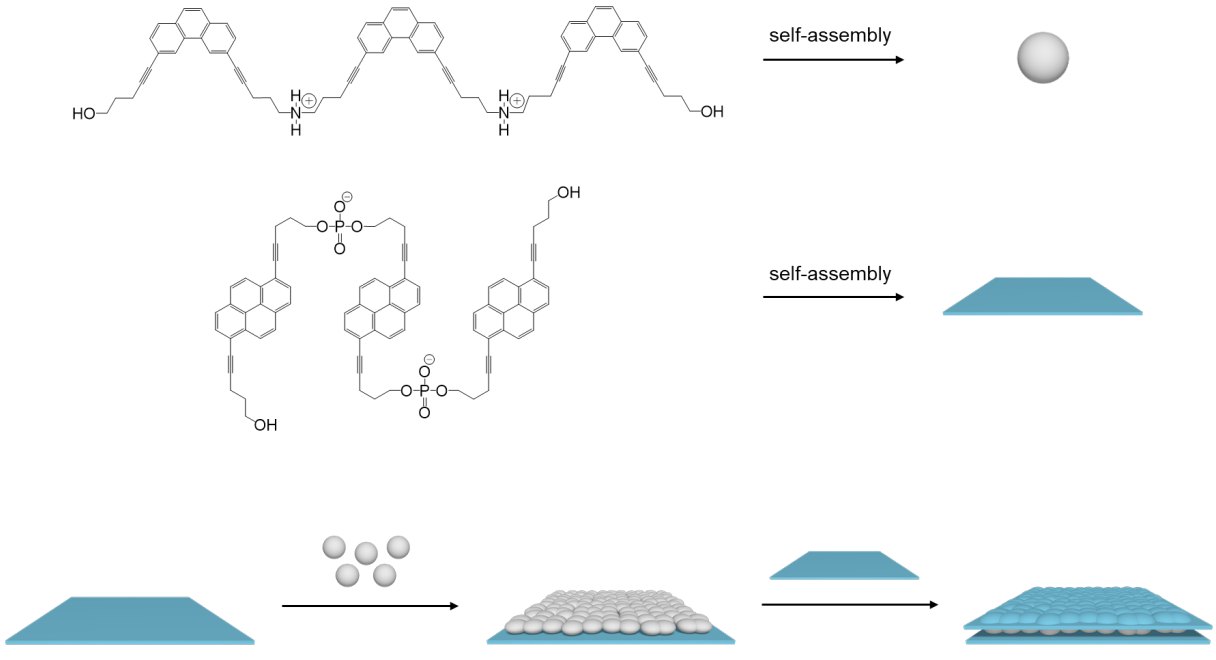
The self-assembly of 3,6-disubstituted amine-linked phenanthrene trimers with a positively charged backbone leads to the formation of vesicles in aqueous medium. In contrast, it was shown that 1,6-disubstituted phosphodiester-linked pyrene trimers, with a negatively charged backbone, self-assemble into sheets. The preformed cationic and anionic objects can be layered on top of each other. Sandwich-type structures of differently charged supramolecular assemblies were analyzed by atomic-force microscopy.



[1] C. D. Bösch, J. Jevric, N. Bürki, M. Probst, S. M. Langenegger, R. Häner, *Bioconjugate Chem.* **2018**, *29*, 1505-1509.
[2] M. Vybornyi, A. V. Rudnev, S. M. Langenegger, T. Wandlowski, G. Calzaferri, R. Häner, *Angew. Chem. Int. Ed.* **2013**, *52*, 11488-11493.