Supramolecular DNA Architectures with Chromophores

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The helical structure of DNA, well defined stacking distances and sequence recognition make DNA very attractive as structural scaffold[1,2] for the sequence-defined supramolecular architectures of two chromophores[3,4] and of different chiralities.[5] Completely self-assembled supramolecular DNA architecture are hierarchically ordered and the DNA template controls not only the binding but also the energy transport properties (Figure 1).[6-9] Using click chemistry, the supramolecular DNA-based chromophore arrangements can be converted into covalent oligomers with full sequence control.

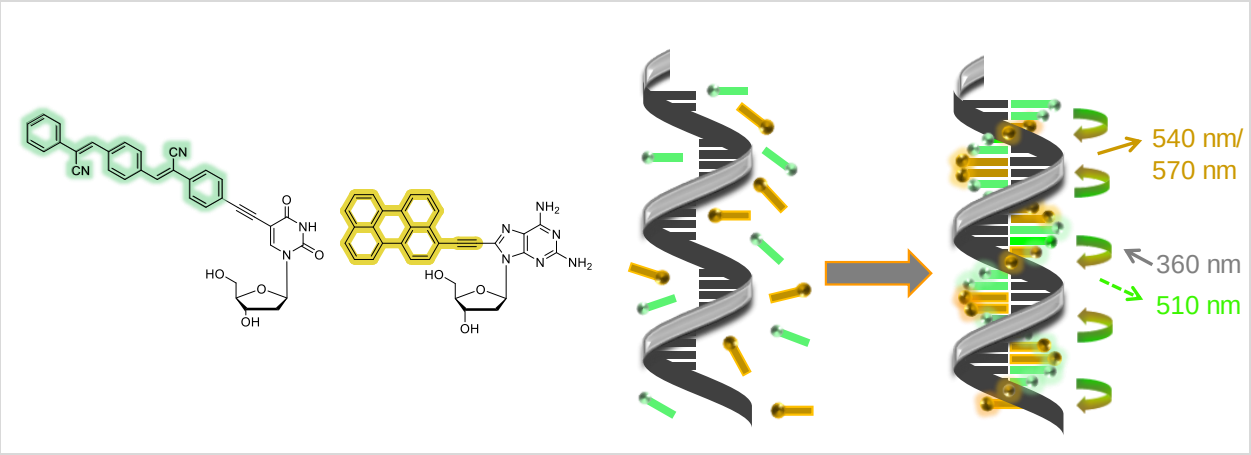

Figure 1: Sequence-selective supramolecular DNA architecture with two different chromophores

References

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