Supramolecular polymer materials for biomedical applications and diagnostics
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1. The combination of supramolecular and covalent polymers leads to the formation of novel materials, in which bulk, responsiveness and widely tunable mechanical properties can be combined in a controllable fashion. Chapter 1, this thesis

2. The programmable and responsive nature of nucleic acid-based materials makes them uniquely suitable for interacting with and operating in a biological context. Chapter 1, this thesis

3. The gelating hybrid DNA-dextran system using the hybridization chain reaction offers an instrument-free method to detect nucleic acid-based targets, which is advantageous over detection systems relying on expensive equipment. Chapter 2, this thesis

4. DNA is the most optimal and programmable cargo tether for multicomponent cargo loading along a supramolecular fiber. Chapter 3, this thesis

5. One-dimensional supramolecular polymer materials are not eminently suitable for precisely spaced nano-patterning of functional cargo along the polymer. Chapter 3, this thesis

6. Crosslinkers and additives can have additional influences on the self-assembly of a material other than their envisaged purpose. Chapter 4, this thesis

7. Supramolecular self-assembly is not a standardized and predictable process. Chapter 4, this thesis

8. Drug release using both physical and chemical interactions between drugs and supramolecular materials offers additional control over release properties compared to classical systems based on merely one of these interactions. Chapter 5, this thesis

9. Discovering what you do not know is often easier than trying to prove something you think you know.

10. Magic happens when the mind is at ease.