

Synthesis and characterization of squaramidebased supramolecular polymers Lauria. F.

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Stellingen

Behorende bij het proefschrift

Synthesis and characterization of squaramide-based supramolecular polymers

Francesca Lauria, Leiden, 2022

- 1. The aromatic character of squaramide is enhanced in a synergistic manner with the formation of strong and directional hydrogen bonds. This remarkable property renders the squaramide an attractive and minimalistic module for the design of supramolecular materials.
 - Chapter 1, this thesis.
- Supramolecular copolymerization is a powerful approach to modulate the properties of supramolecular materials. Chapter 2, this thesis.
- 3. Multicomponent reactions are a potent synthetic strategy to obtain molecules with high structural diversity and function in a single step with high yield. **Chapter 3**, this thesis.
- 4. The combination of trisquaric acid with other Ugi components can be exploited to prepare tripodal scaffolds for supramolecular assembly. **Chapter 3**, this thesis.
- 5. The influence of the monomer structure on the final supramolecular self-assembly still remains challenging and difficult to predict. **Chapter 4**, this thesis.
- 6. The balance of the hydrophobic and hydrophilic domains in the supramolecular monomer dictates their self-assembly in water. **Chapter 4**, this thesis.
- The use of light activatable chemistries in supramolecular biomaterials is highly attractive as it provides
 opportunities for spatiotemporal control of mechanics and bioactivity. Chapter 5, this thesis.
- 8. PhD life is full of challenges, but it is..... never boring!
- 9. What motivates a scientist to never give up? Curiosity!