

# Synthesis and characterization of squaramidebased supramolecular polymers

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#### Stellingen

#### Behorende bij het proefschrift

#### Synthesis and characterization of squaramide-based supramolecular polymers

### Francesca Lauria, Leiden, 2022

- 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.
- 2. 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.
- 7. 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!