

Table of contents

Kurzzusammenfassung / Abstract in German.....	1
Abstract	3
1 Introduction	5
1.1 Molecular photoswitches.....	5
1.2 Gels	30
1.3 Aggregation induced emission	37
2 Objective	41
3 Results and discussion.....	43
3.1 Fluorinated azobenzenes switchable with red light.....	43
3.2 Symmetrical chiral TFAB gelator.....	54
3.3 Symmetrical chiral gelator – model system for the addition of dopants	57
3.4 Transfer of the composite alginate system to PAP-DKP-Lys	71
3.5 Transfer of the composite alginate system to F ₂ -PAP-DKP-Lys	75
3.6 A new red light triggered LMWG – Cl ₄ -PAP-DKP-Lys.....	88
3.7 A new red light triggered LMWG – Cl ₂ -F ₂ -PAP-DKP-Lys.....	103
3.8 New AIE-gen – Naphthalimide-(F ₂)-PAP-DKP-Lys conjugate	109
4 Summary and Outlook.....	119
4.1 Fluorinated azobenzenes switchable with red light.....	120
4.2 Symmetrical chiral TFAB gelator.....	121
4.3 Symmetrical chiral gelator – model system for the addition of dopants	121
4.4 Transfer of the composite alginate system to (F ₂)-PAP-DKP-Lys..	122
4.5 New red light triggered LMWG – Cl ₄ /Cl ₂ -F ₂ -PAP-DKP-Lys	123
4.6 New AIE-gens - Solvent dependent aggregation.....	124

5	Experimental part.....	127
5.1	General remarks.....	127
5.2	Analytics and devices	128
5.3	Fluorinated azobenzenes switchable with red light.....	134
5.4	Symmetric chiral TFAB gelator	199
5.5	Symmetrical chiral gelator – model system for the addition of dopants	207
5.6	Transfer of the composite alginate system to PAP-DKP-Lys	245
5.7	Transfer of the composite alginate system to F ₂ -PAP-DKP-Lys	251
5.8	A new red light triggered LMWG – Cl ₄ -PAP-DKP-Lys.....	268
5.9	A new red light triggered LMWG – CL ₂ -F ₂ -PAP-DKP-Lys.....	293
5.10	New AIE-gen – Naphthalimide-(F ₂)-PAP-DKP-Lys conjugate	313
6	List of Abbreviations.....	335
7	Literature index.....	337
8	Appendix	349
8.1	Curriculum Vitae	349
8.2	List of Publications	351
8.3	Acknowledgements	353