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S U P P O R T I N G I N F O R M A T I O N

Optical fluorescent sensor for IoT application in direct visualization of the curing process in polymer matrices

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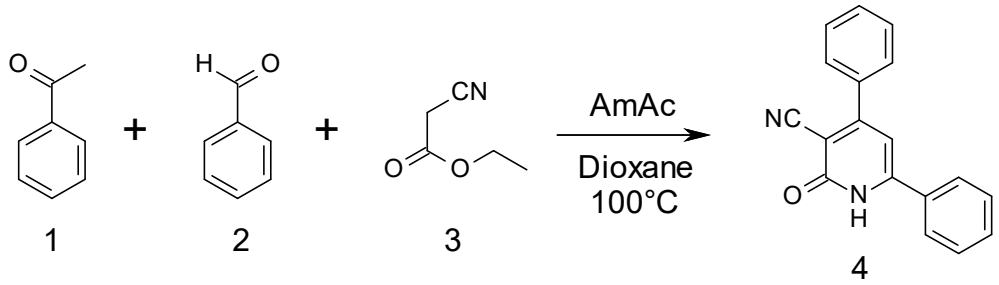
SUPPORTING INFORMATION

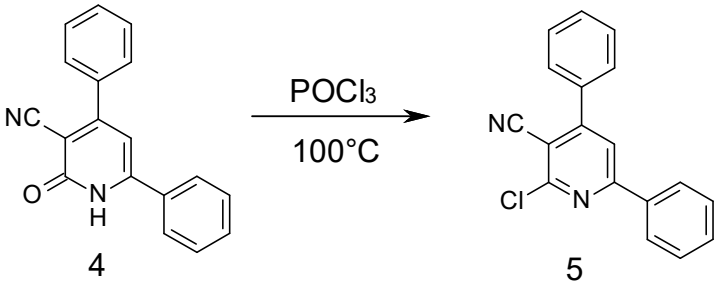
CONTENTS

1. Preparation and characterization of 2-amino-4,6-diphenyl-pyridine-3-carbonitrile derivatives

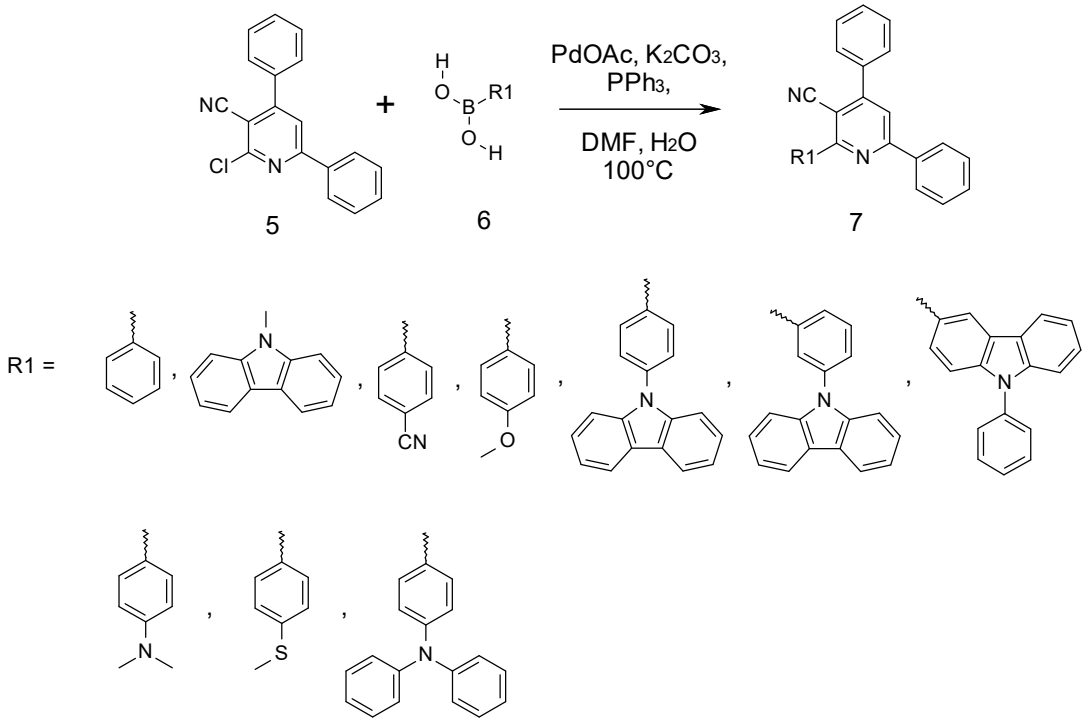
Derivatives of 4,6-diphenylpyridine-3-carbonitrile were synthesized by protocol presented below figures 1-3.



Scheme 1. Preparation of 2-oxo-4,6-diphenyl-1,2-dihydropyridine-3-carbonitrile



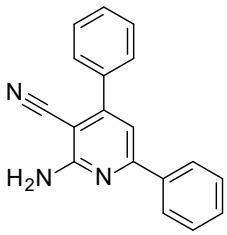
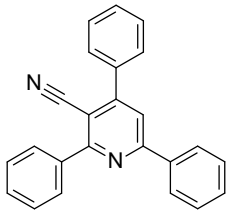
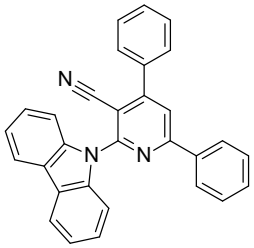
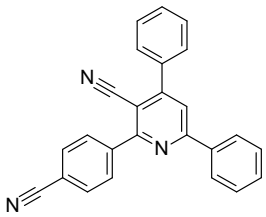
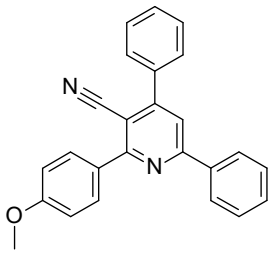
Scheme 2. Preparation of 2-chloro-4,6-diphenyl-pyridine-3-carbonitrile

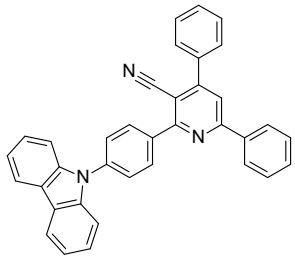
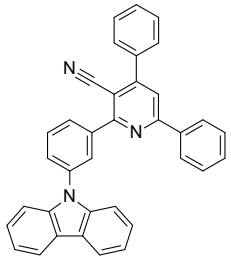
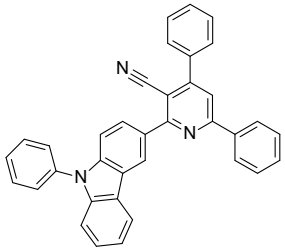
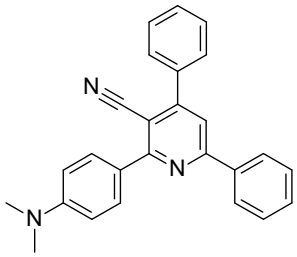
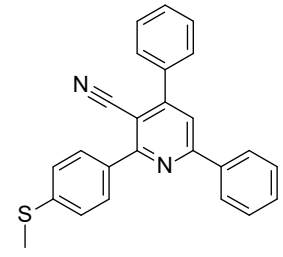


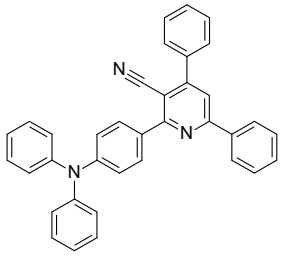
Scheme 3. Preparation 4,6-diphenyl-pyridine-3-carbonitrile derivatives.

2. Analytical data of synthetized 2-amino-4,6-diphenyl-pyridine-3-carbonitrile derivatives

Table S1. Physicochemical data of the compounds synthesized.

2-amino-4,6-diphenylpyridine-3-carbonitrile (P1)	
	0.698 g Yield: 33%; ^{1}H NMR (400 MHz, DMSO) δ 8.18-8.10 (m, 2H), 7.72 – 7.66 (m, 2H), 7.60 – 7.53 (m, 3H), 7.53 – 7.46 (m, 3H), 7.30 – 7.27 (s, 1H), 7.07 – 6.97 (s, 2H). S (ESI) m/z(%): 272 ([M+H]$^+$, 28%), 313 ([M+CH_3CN]$^+$, 100%)
2,4,6-triphenylpyridine-3-carbonitrile (P2)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.38 - 8.29 (m, 2H), 8.23 – 8.17 (s, 1H), 8.06 – 7.98 (m, H), 7.89 – 7.80 (m, 2H), 7.68 – 7.51 (m, 9H). S (ESI) m/z(%): 333 ([M+H]$^+$, 100%)
2-carbazol-9-yl-4,6-diphenyl-pyridine-3-carbonitrile (P3)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.45 - 8.41 (s, 1H), 8.33 – 8.26 (m, 4H), 8.02 – 7.95 (m, 2H), 7.74 – 7.70 (d, 2H), 7.70 – 7.62 (m, 3H), 7.59 – 7.50 (m, 5H), 7.43 – 7.36 (t, 3H). S (ESI) m/z(%): 422 ([M+H]$^+$, 100%)
2-(4-cyanophenyl)-4,6-diphenyl-pyridine-3-carbonitrile (P4)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.37 - 8.31 (m, 2H), 8.29 – 8.26 (s, 1H), 8.24 – 8.19 (d, 2H), 8.13 – 8.08 (d, 2H), 7.89 – 7.84 (m, 2H), 7.68 – 7.60 (m, 3H), 7.60 – 7.53 (m, 3H). S (ESI) m/z(%): 358 ([M+H]$^+$, 100%)
2-(4-methoxyphenyl)-4,6-diphenyl-pyridine-3-carbonitrile (P5)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.37 - 8.29 (m, 2H), 8.15 – 8.10 (s, 1H), 8.05 – 7.98 (m, 2H), 7.87 – 7.80 (m, 2H), 7.66 – 7.52 (m, 6H), 7.20 – 7.13 (m, 2H), 3.91 – 3.85 (m, 3H). S (ESI) m/z(%): 363 ([M+H]$^+$, 100%)
2-(4-carbazol-9-ylphenyl)-4,6-diphenyl-pyridine-3-carbonitrile (P6)	

	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.44 - 8.38 (m, 2H), 8.38 – 8.32 (m, 2H), 8.32 – 8.26 (m, 3H), 7.93 – 7.90 (m, 3H), 7.68 – 7.63 (m, 3H), 7.63 – 7.53 (m, 5H), 7.52 – 7.45 (m, 3H), 7.37 – 7.33 (m, 2H). S (ESI) m/z(%): 498 ([M+H]$^+$, 100%)
2-(4-carbazol-9-ylphenyl)-4,6-diphenyl-pyridine-3-carbonitrile (P7)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.40 - 8.33 (m, 2H), 8.33 – 8.22 (m, 4H), 8.20 – 8.12 (m, 1H), 7.97 – 7.81 (m, 4H), 7.70 – 7.59 (m, 5H), 7.59 – 7.52 (m, 3H), 7.50 – 7.43 (m, 2H), 7.38 – 7.30 (m, 2H). S (ESI) m/z(%): 498 ([M+H]$^+$, 100%)
4,6-diphenyl-2-(9-phenylcarbazol-3-yl)pyridine-3-carbonitrile (P8)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.40 - 8.33 (m, 2H), 8.33 – 8.22 (m, 4H), 8.20 – 8.12 (m, 1H), 7.97 – 7.81 (m, 4H), 7.70 – 7.59 (m, 5H), 7.59 – 7.52 (m, 3H), 7.50 – 7.43 (m, 2H), 7.38 – 7.30 (m, 2H). S (ESI) m/z(%): 498 ([M+H]$^+$, 100%)
2-[4-(dimethylamino)phenyl]-4,6-diphenyl-pyridine-3-carbonitrile (P9)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.57 - 8.50 (d, 2H), 7.98 – 7.89 (m, 2H), 7.81 – 7.74 (m, 2H), 7.69 – 7.62 (m, 2H), 7.57 – 7.39 (m, 9H), 7.29 – 7.23 (m, 2H), 5.26 – 5.12 (m, 4H). S (ESI) m/z(%): 417 ([M+CH_3CN]$^+$, 100%)
2-(4-methylsulfanylphenyl)-4,6-diphenyl-pyridine-3-carbonitrile (P10)	
	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.36 - 8.29 (m, 2H), 8.19 – 8.15 (s, 1H), 8.02 – 7.97 (m, 2H), 7.87 – 7.82 (m, 2H), 7.64 – 7.54 (m, 6H), 7.50 – 7.46 (m, 2H), 2.60 – 2.56 (s, 3H). S (ESI) m/z(%): 379 ([M+H]$^+$, 100%)
4,6-diphenyl-2-[4-(N-phenylanilino)phenyl]pyridine-3-carbonitrile (P11)	

	0.124 g Yield: 56%; ^{1}H NMR (400 MHz, DMSO) δ 8.38 - 8.28 (m, 2H), 8.14 - 8.10 (s, 1H), 8.00 – 7.93 (d, 2H), 7.87 – 7.78 (m, 2H), 7.66 – 7.52 (m, 6H), 7.44 – 7.34 (m, 4H), 7.21 – 7.12 (m, 6H), 7.11 – 7.03 (d, 2H). S (ESI) m/z(%): 500 ([M+CH_3CN]$^+$, 100%)

3. NMR spectra of synthesized 2-amino-4,6-diphenyl-pyridine-3-carbonitrile derivatives

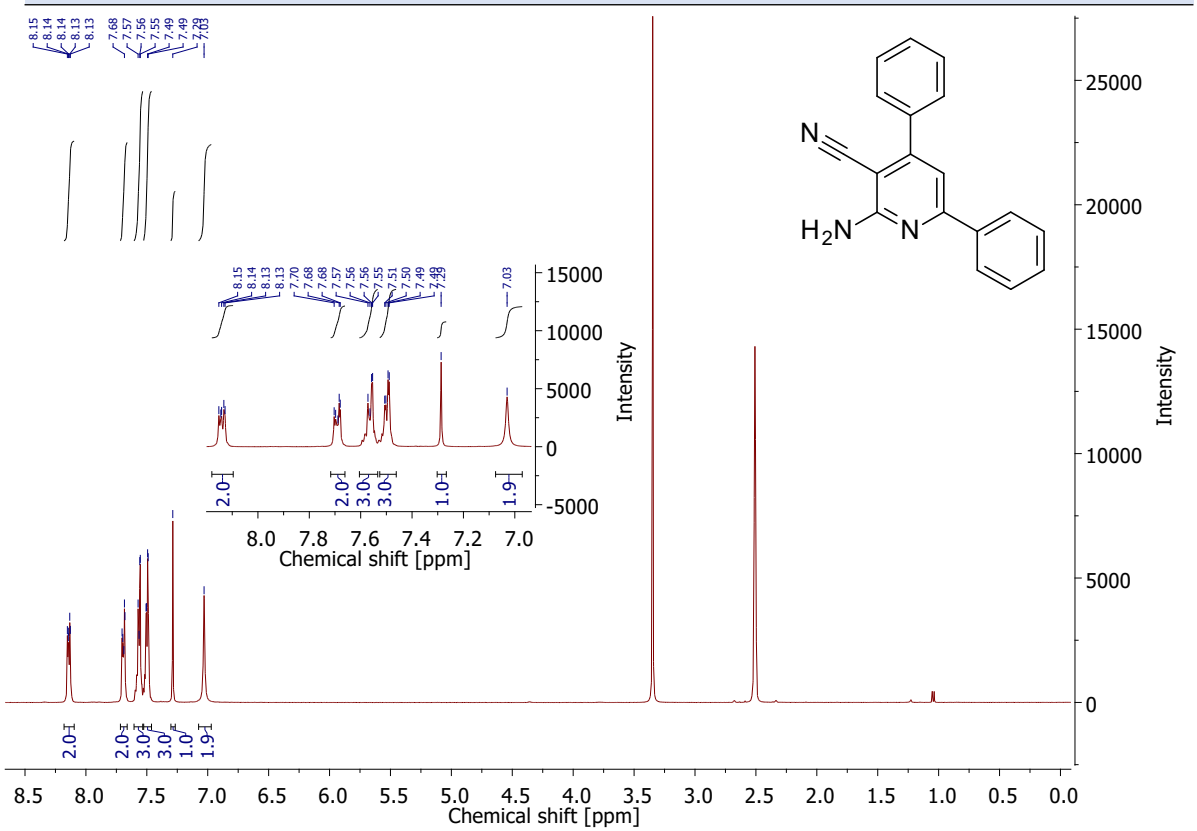


Figure S1. ^{1}H NMR spectrum of P1

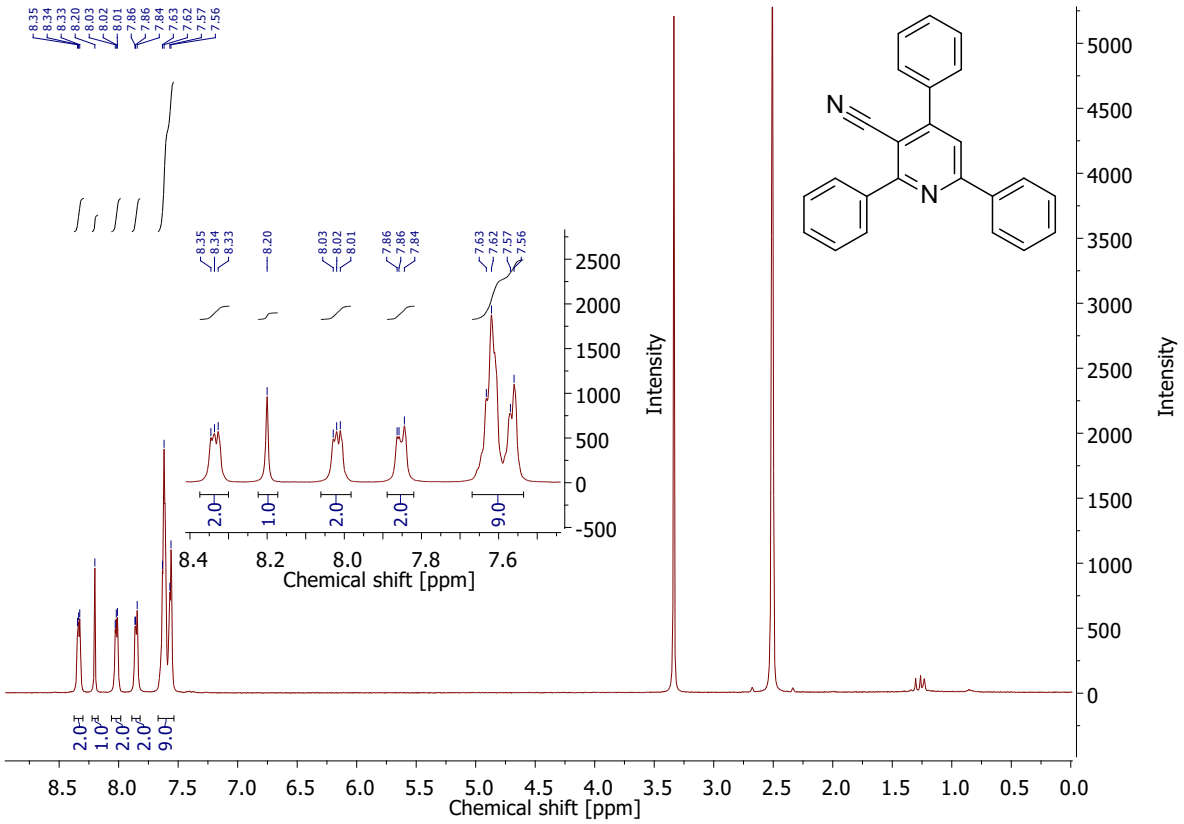


Figure S2. ^{1}H NMR spectrum of P2

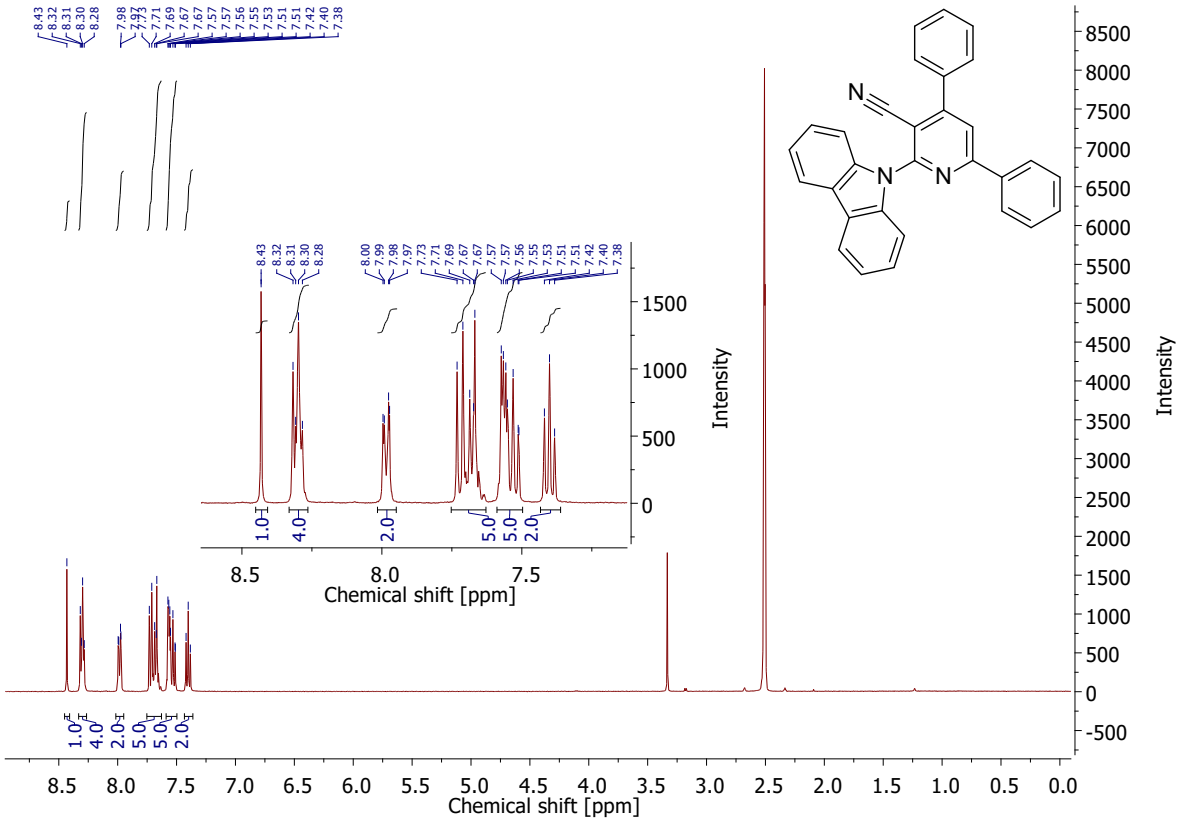


Figure S3. ^{1}H NMR spectrum of P3

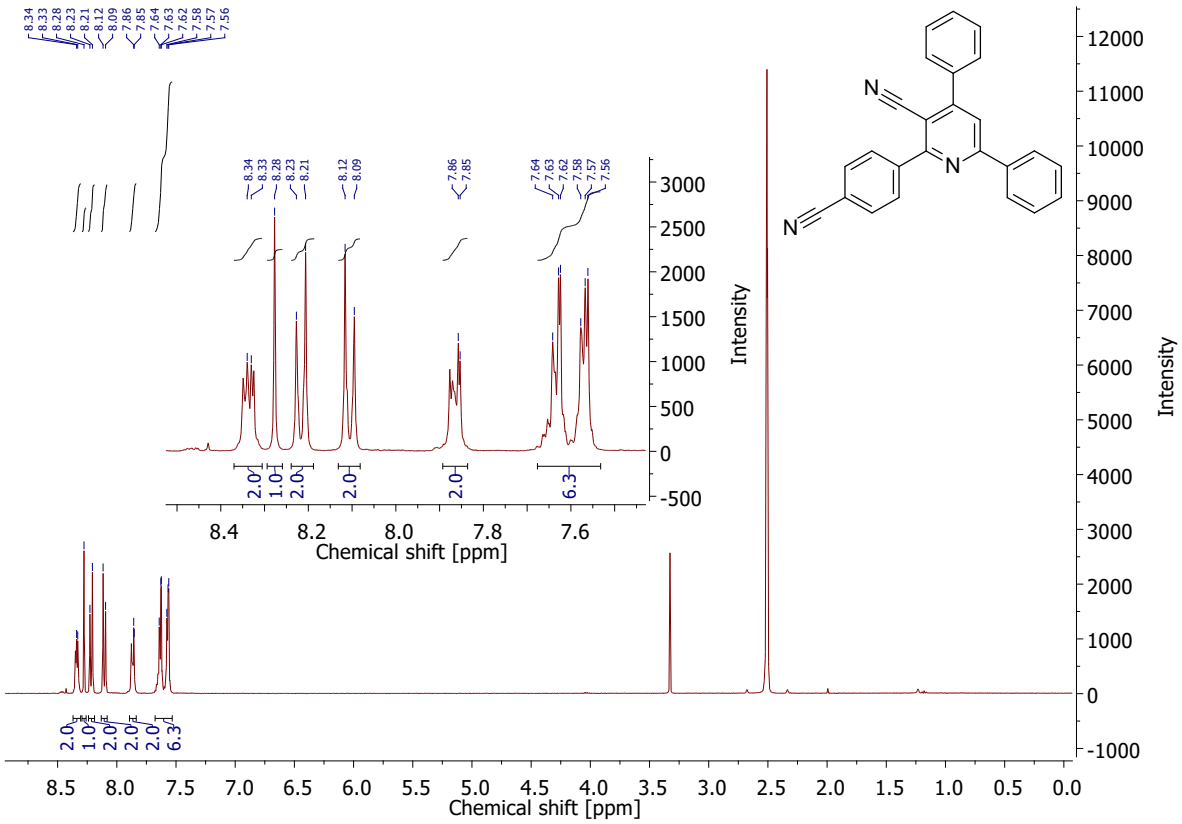


Figure S4. ^{1}H NMR spectrum of P4

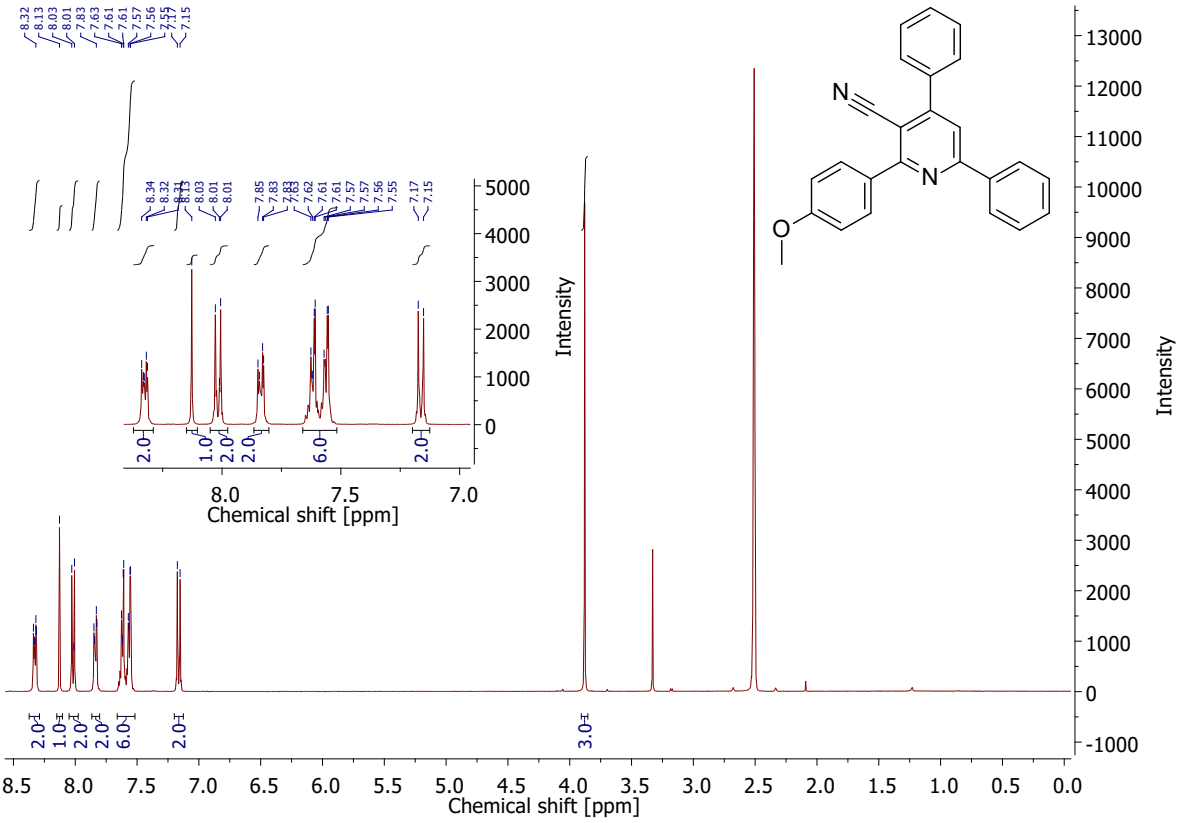


Figure S5. ^{1}H NMR spectrum of P5

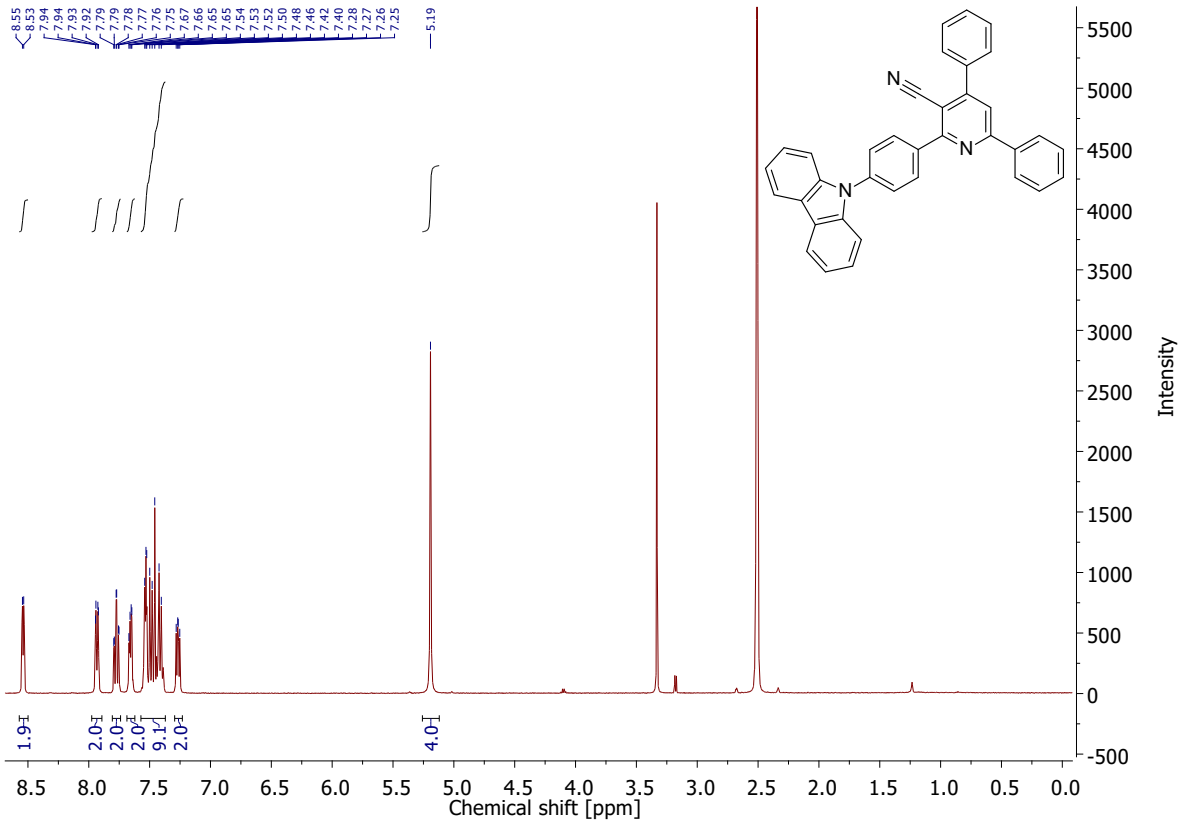


Figure S6. ^{1}H NMR spectrum of P6

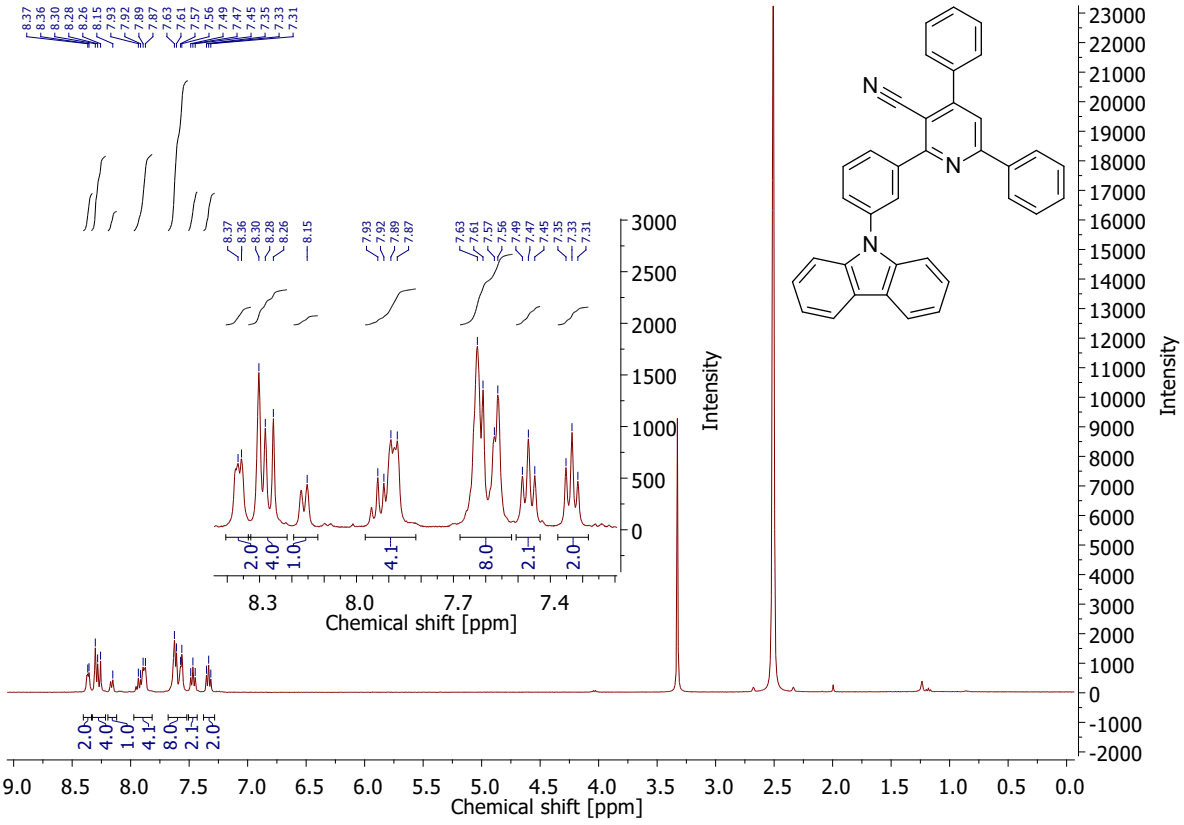


Figure S7. ^{1}H NMR spectrum of P7

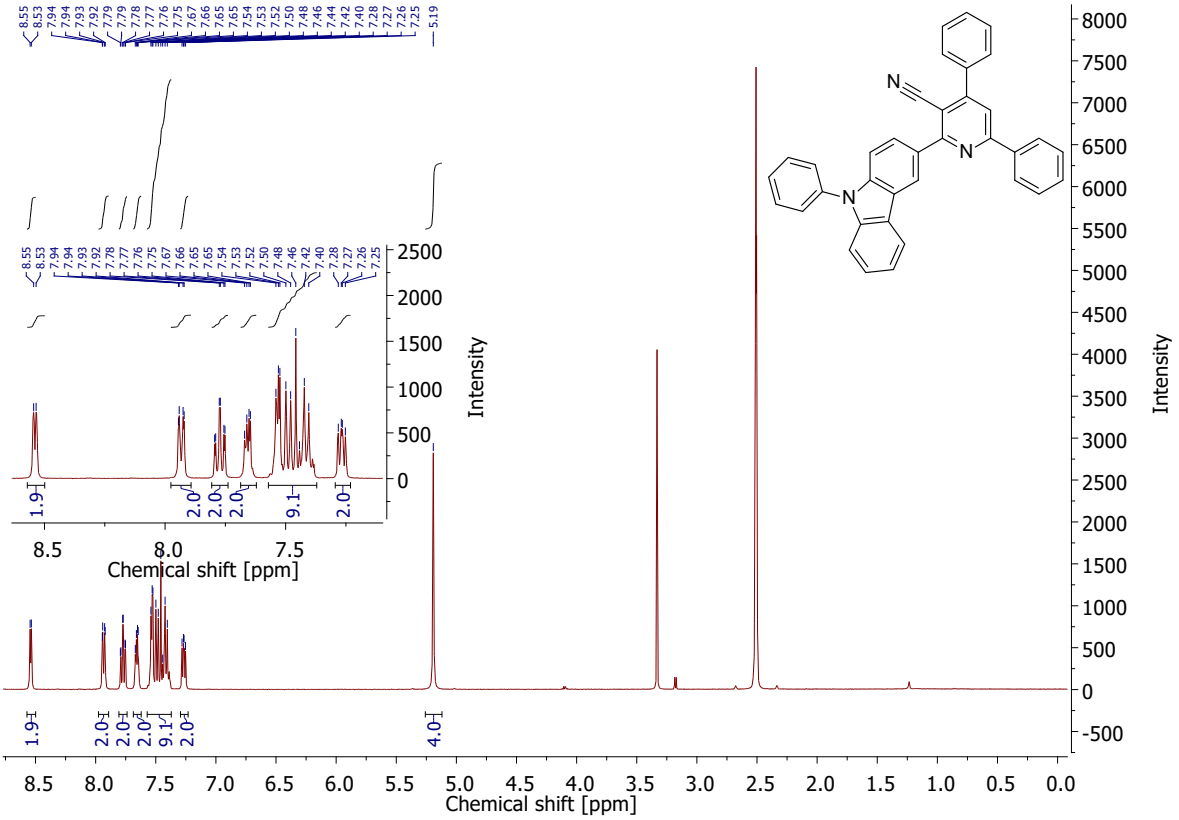


Figure S8. ^{1}H NMR spectrum of P8

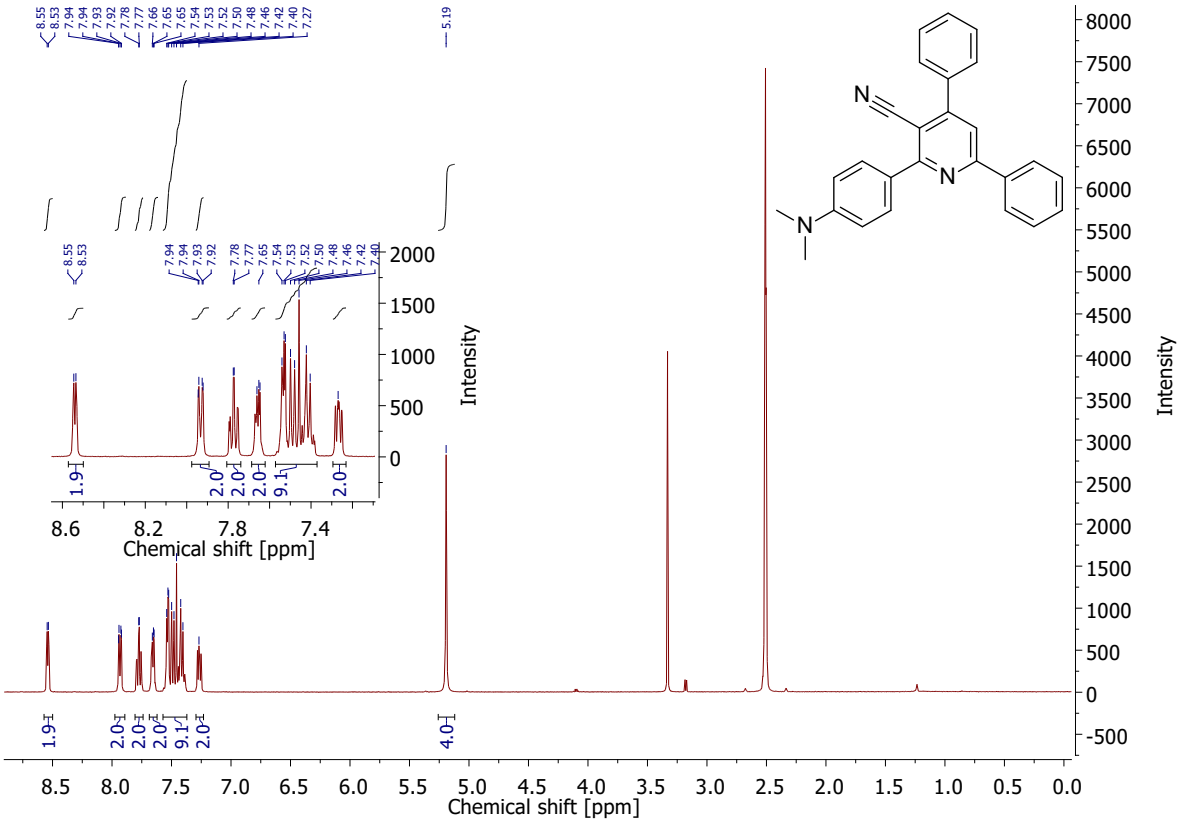


Figure S9. ^{1}H NMR spectrum of P9

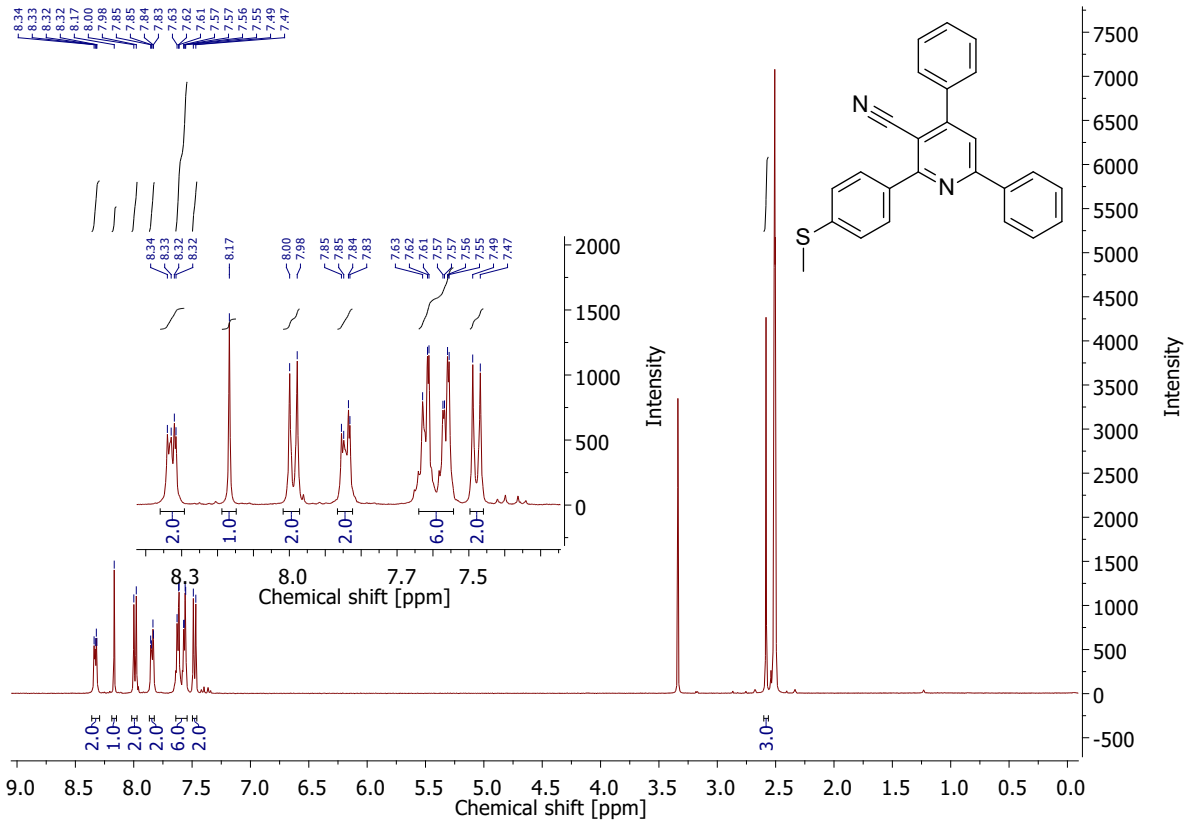


Figure S10. ^{1}H NMR spectrum of P10

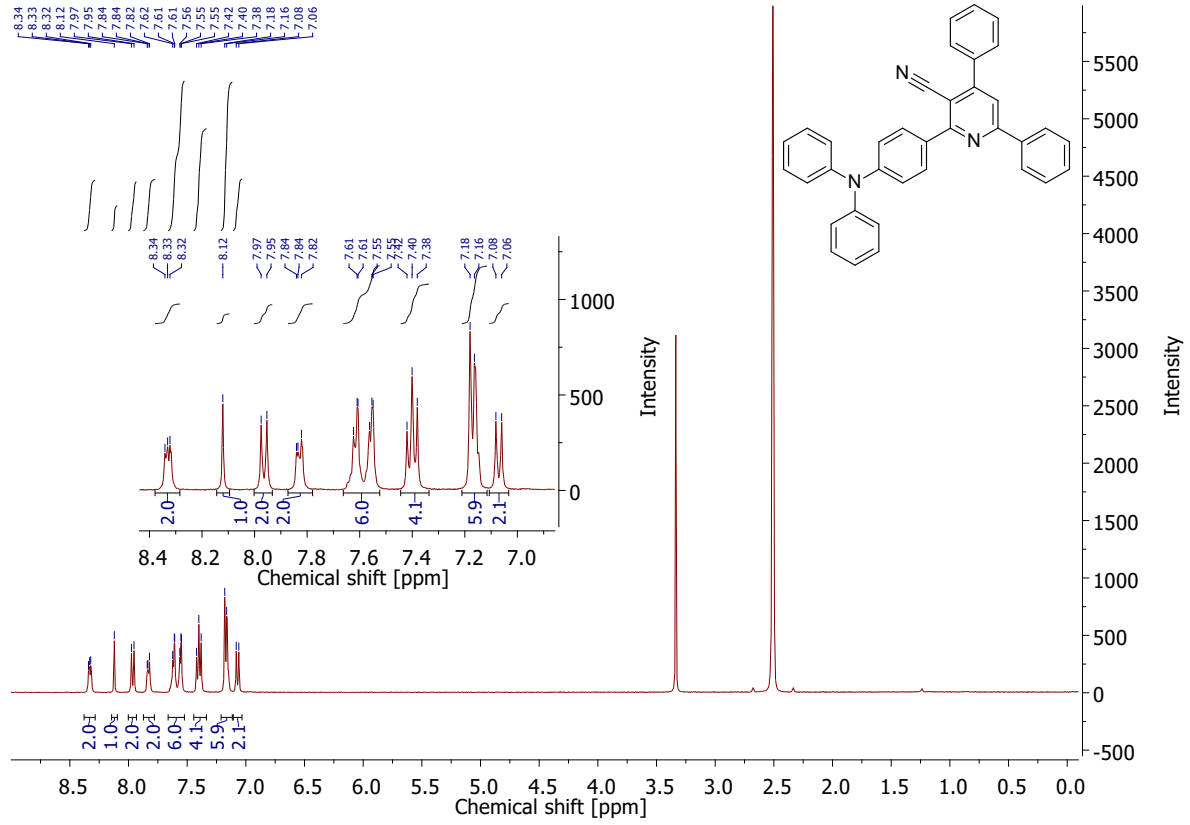


Figure S11. ^{1}H NMR spectrum of P11

4. Excitation and emission spectra at acetonitrile solution

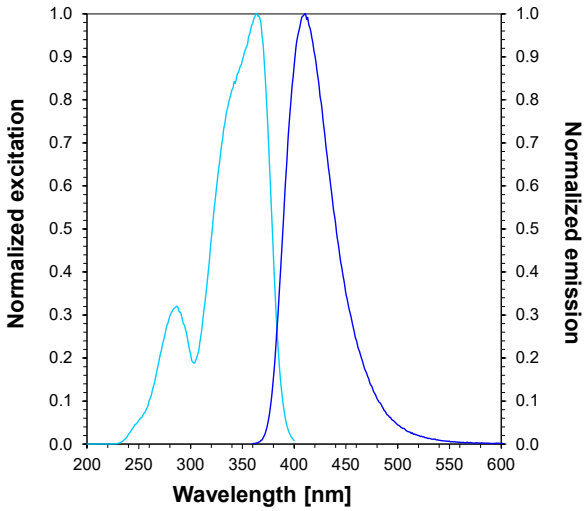


Figure S12. Excitation and emission spectra of P1 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

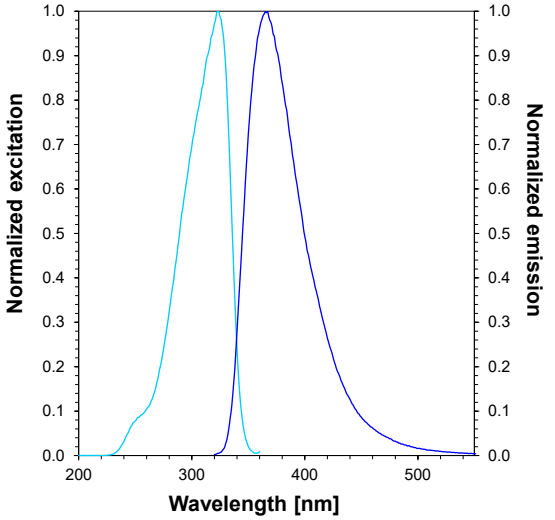


Figure S13. Excitation and emission spectra of P2 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

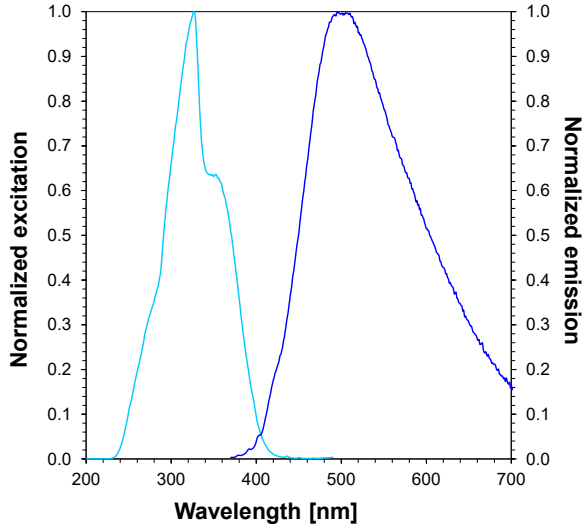


Figure S14. Excitation and emission spectra of P3 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

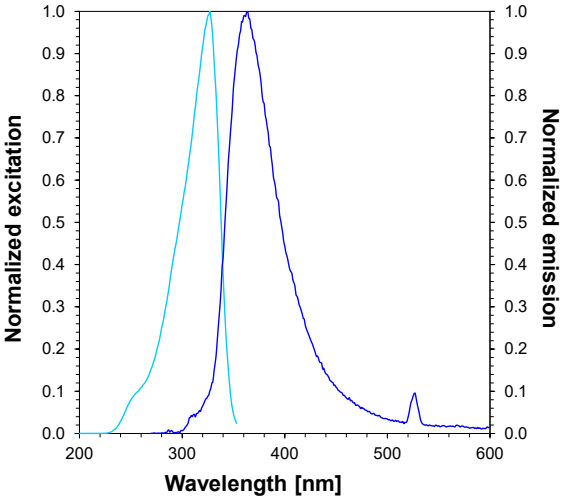


Figure S15. Excitation and emission spectra of P4 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

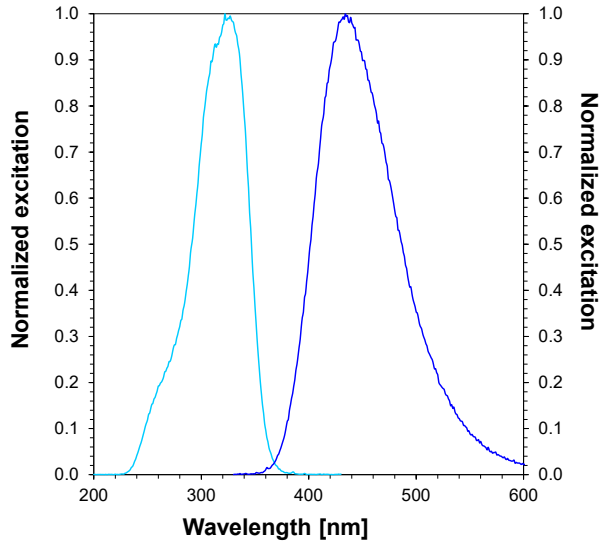


Figure S16. Excitation and emission spectra of P5 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

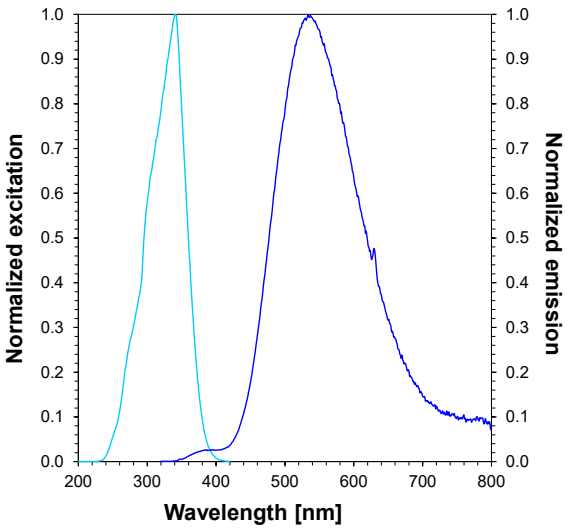


Figure S17. Excitation and emission spectra of P6 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

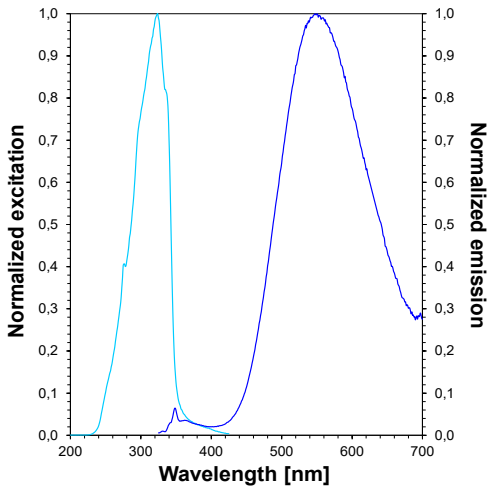


Figure S18. Excitation and emission spectra of P7 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

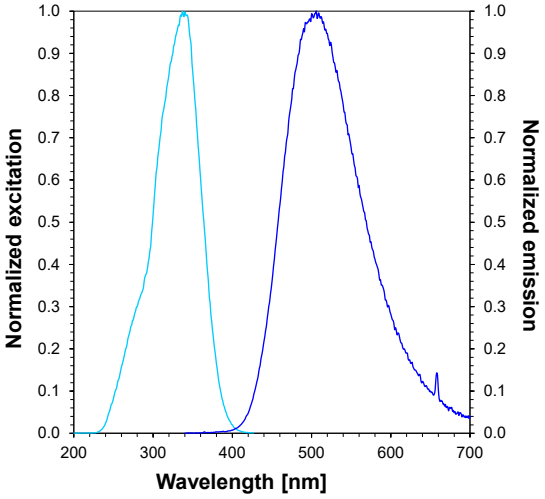


Figure S19. Excitation and emission spectra of P8 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

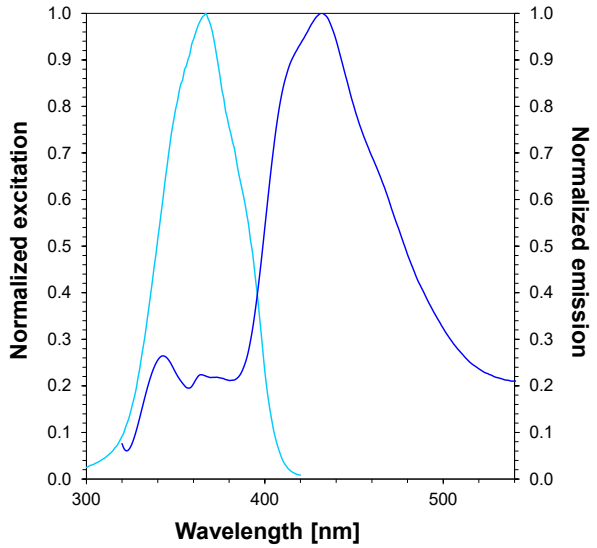


Figure S20. Excitation and emission spectra of P9 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

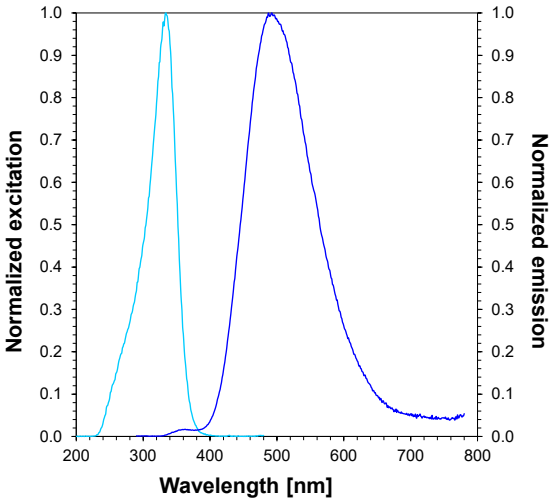


Figure S21. Excitation and emission spectra of P10 recorded at acetonitrile solution. Exciatation wavelength adjustred to absorption maxima of molecule.

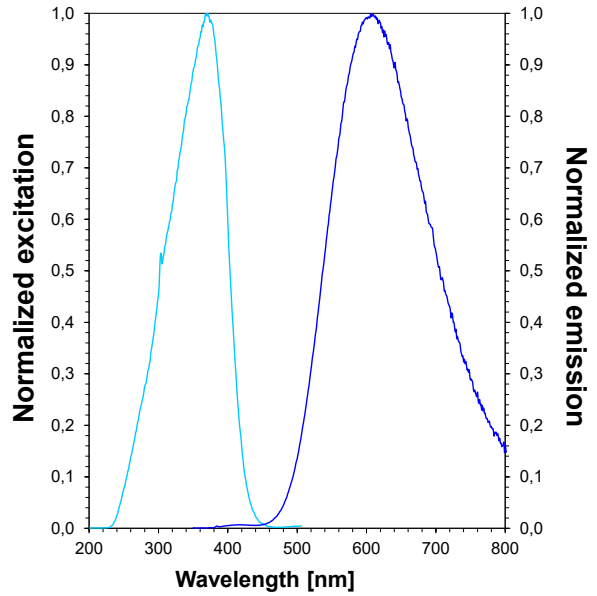


Figure S22. Excitation and emission spectra of P11 recorded at acetonitrile solution. Excitation wavelength adjusted to absorption maxima of molecule.

5. Emission spectra and quenching correlation at acetonitrile solution

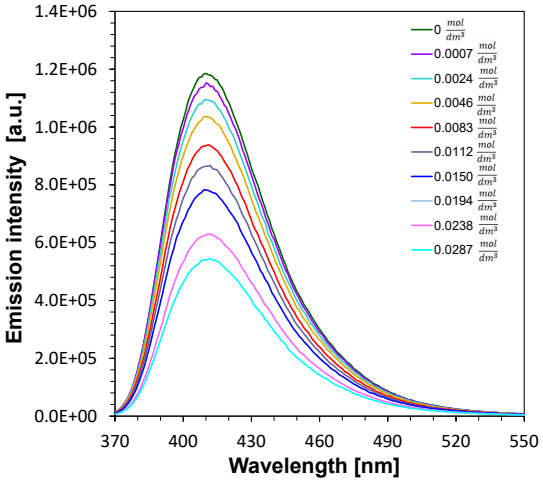


Figure S23. Fluorescence of P1 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

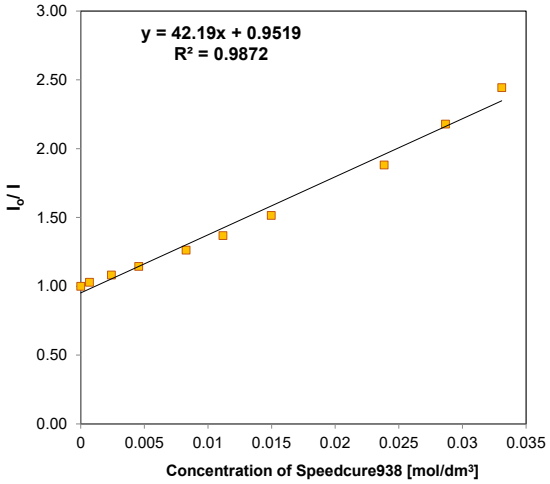


Figure S24. Change of fluorescence intensity with increasing concentration of Speedcure 938.

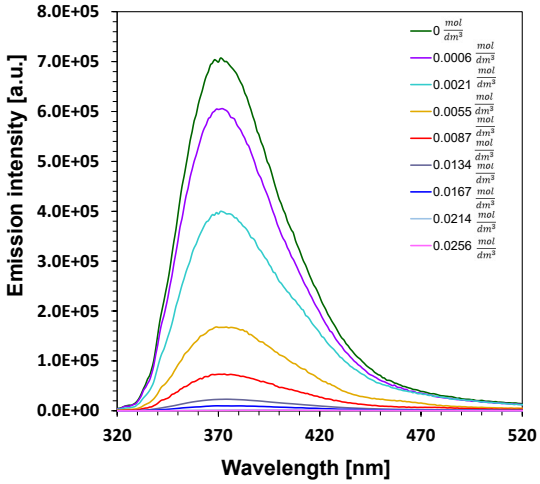


Figure S25. Fluorescence of P2 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

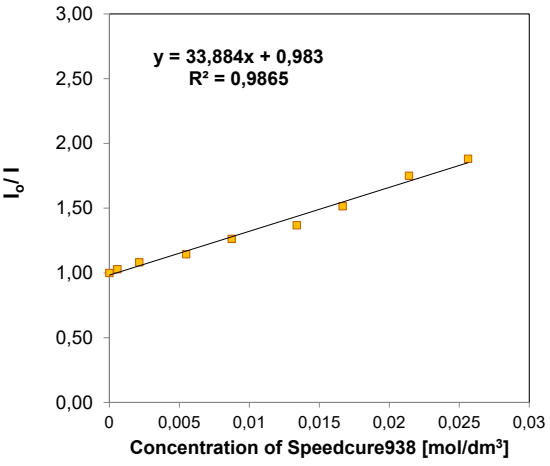


Figure S26. Change of fluorescence intensity with increasing concentration of Speedcure 938.

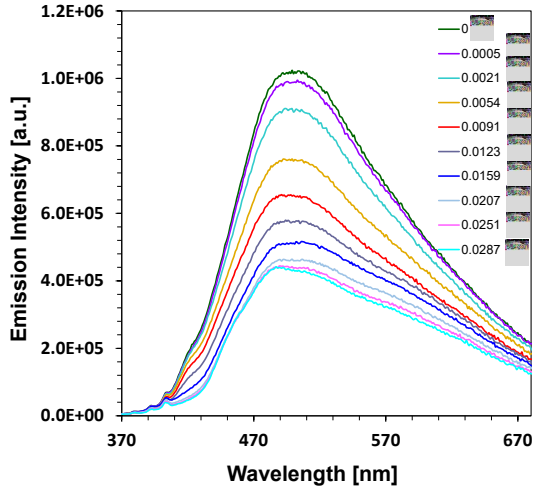


Figure S27. Fluorescence of P3 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

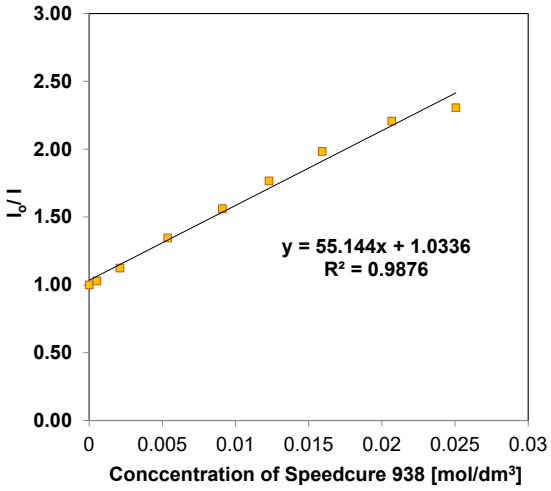


Figure S28. Change of fluorescence intensity with increasing concentration of Speedcure 938.

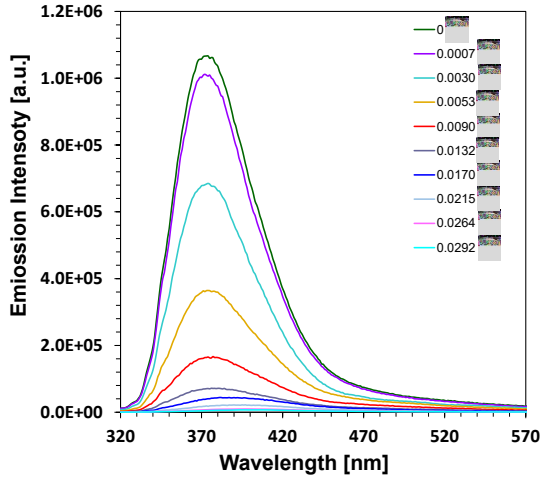


Figure S29. Fluorescence of P4 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

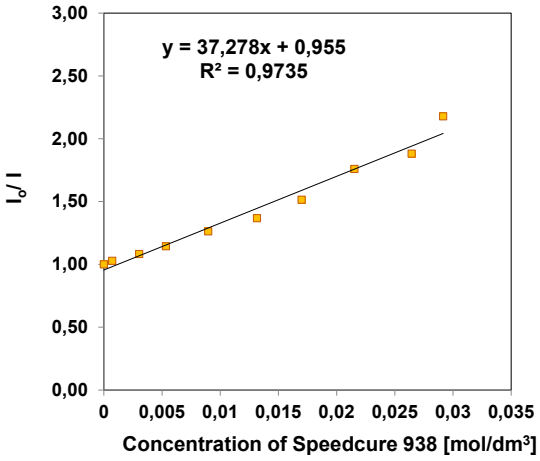


Figure S30. Change of fluorescence intensity with increasing concentration of Speedcure 938.

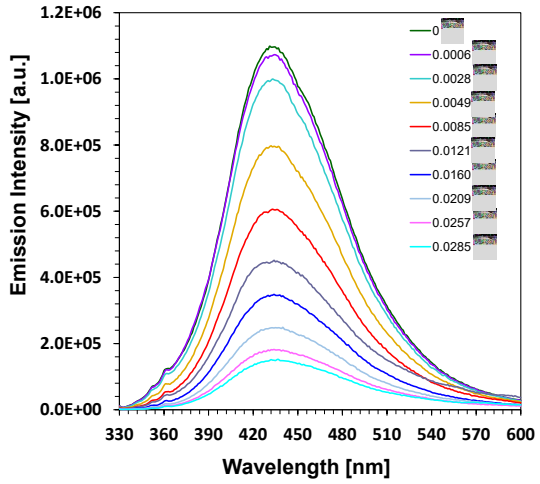


Figure S31. Fluorescence of P5 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

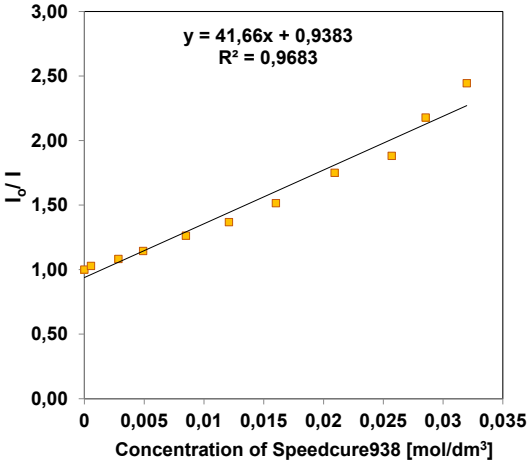


Figure S32. Change of fluorescence intensity with increasing concentration of Speedcure 938.

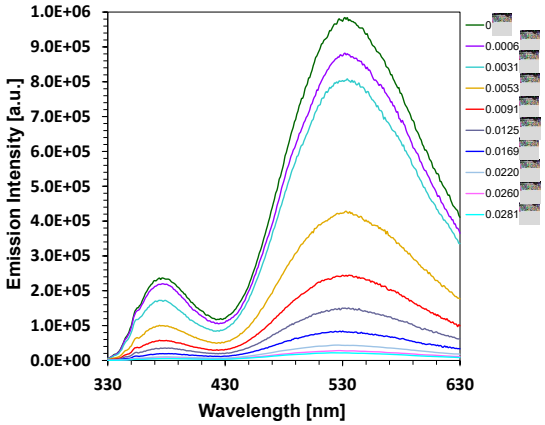


Figure S33. Fluorescence of P6 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

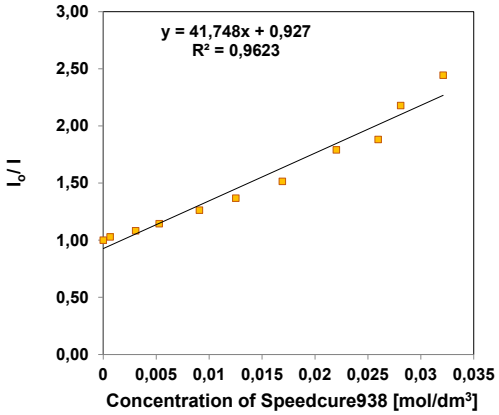


Figure S34. Change of fluorescence intensity with increasing concentration of Speedcure 938.

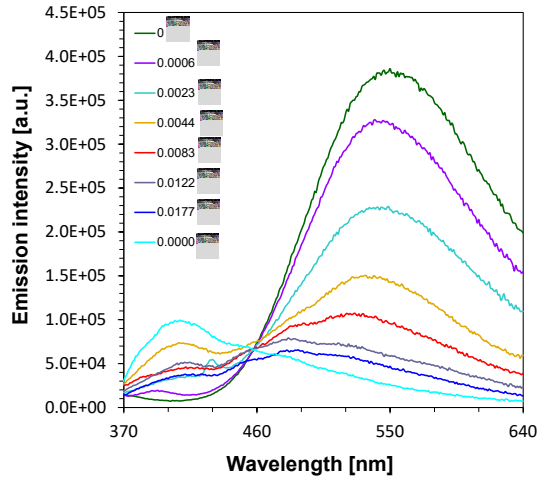


Figure S35. Fluorescence of P7 under

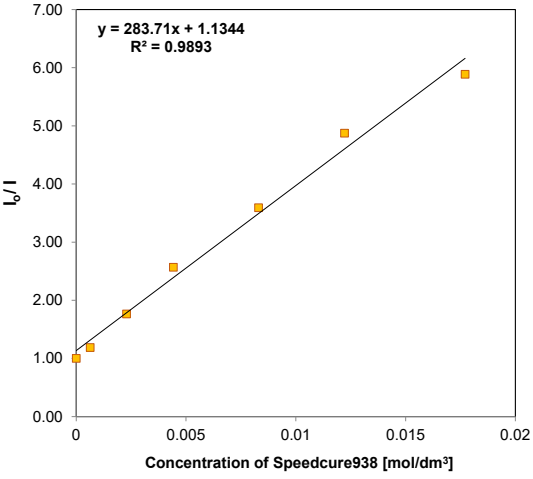


Figure S36. Change of fluorescence intensity with

addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

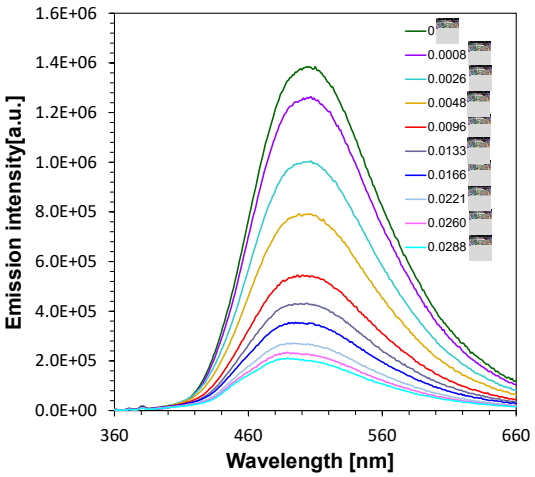


Figure S37. Fluorescence of P8 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

increasing concentration of Speedcure 938.

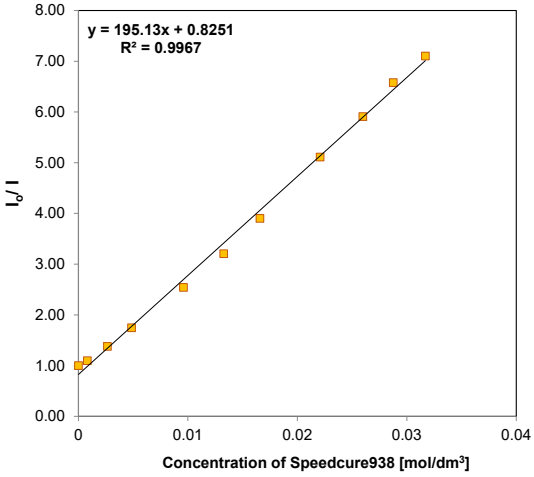


Figure S38. Change of fluorescence intensity with increasing concentration of Speedcure 938.

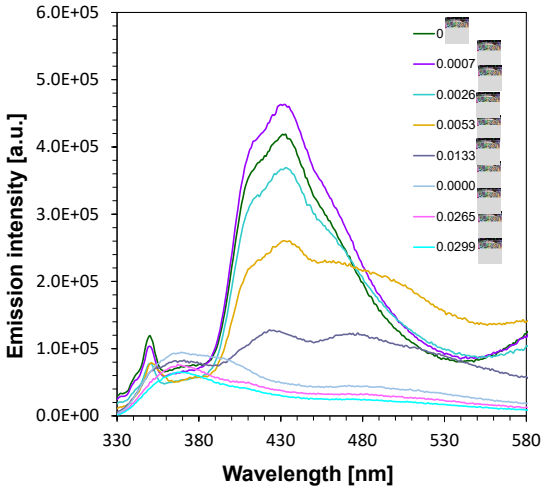


Figure S39. Fluorescence of P9 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

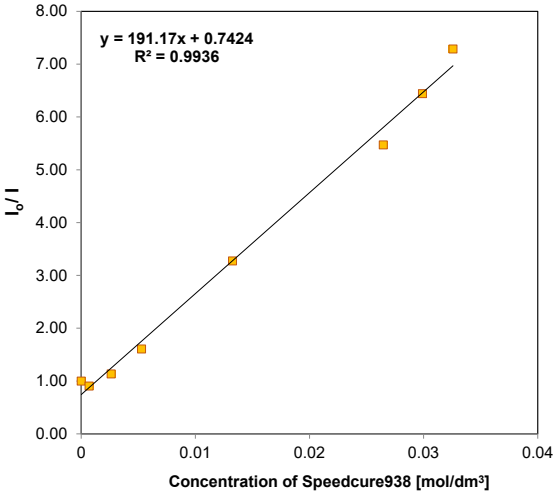


Figure S40. Change of fluorescence intensity with increasing concentration of Speedcure 938.

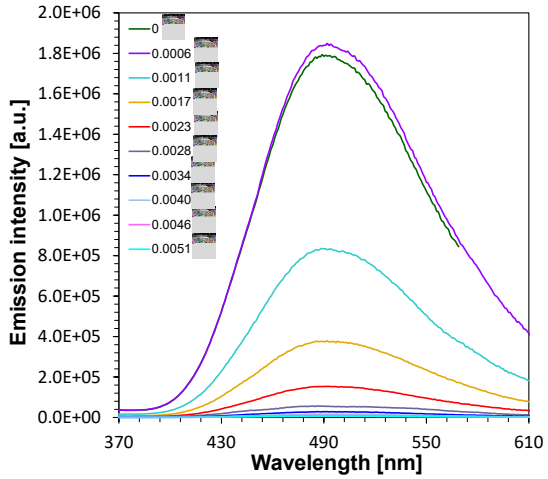


Figure S41. Fluorescence of P10 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

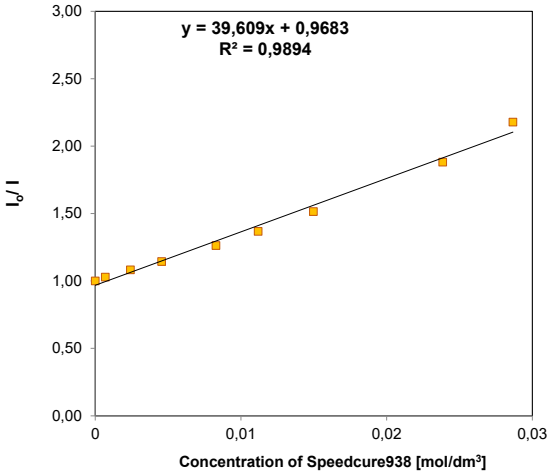


Figure S42. Change of fluorescence intensity with increasing concentration of Speedcure 938.

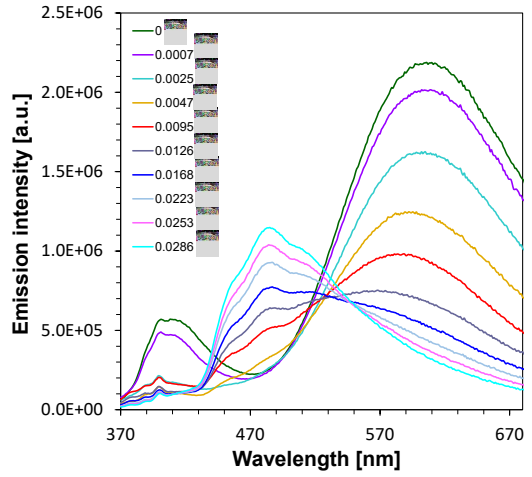


Figure S43. Fluorescence of P11 under addition of Speedcure 938 at acetonitrile solution. Excitation wavelength was adjusted to fit absorption maxima of compound.

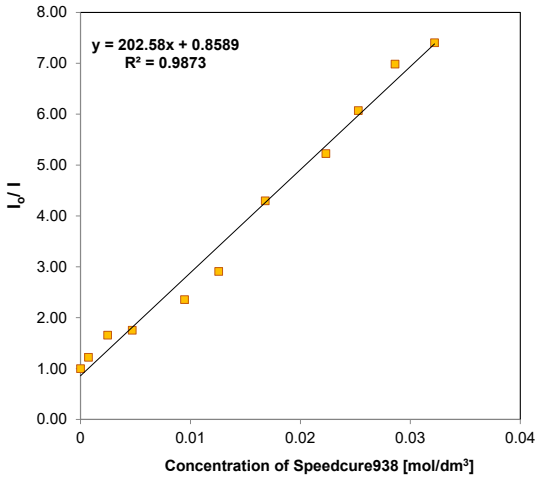


Figure S44. Change of fluorescence intensity with increasing concentration of Speedcure 938.

6. Changes in fluorescent spectra during cationic photopolymerization of TEGDVE

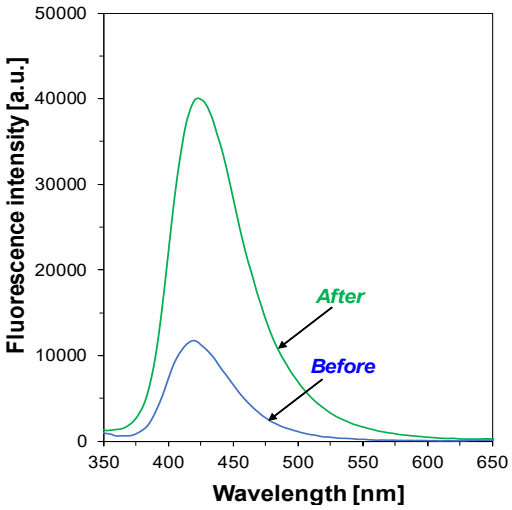


Figure S45. Changes in fluorescence of P1 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

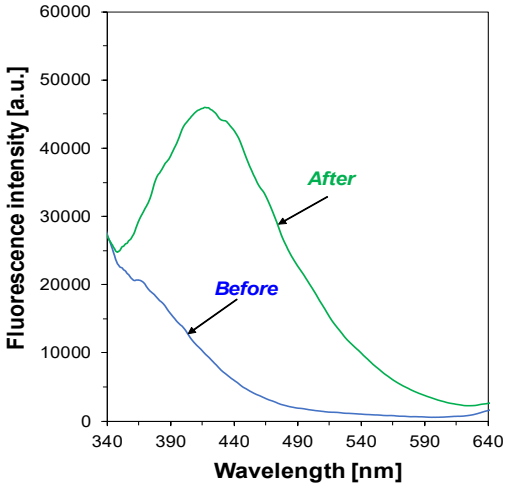


Figure S46. Changes in fluorescence of P2 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

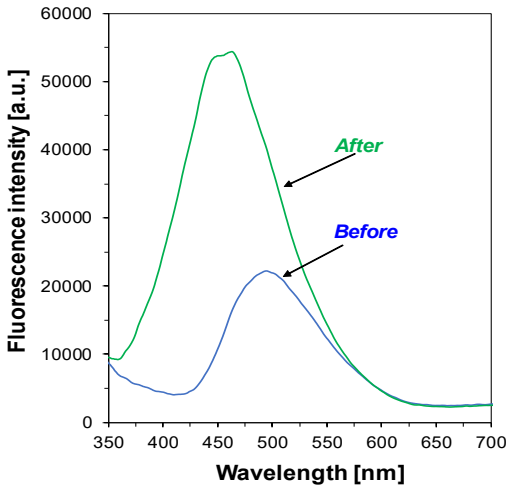


Figure S47. Changes in fluorescence of P3 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

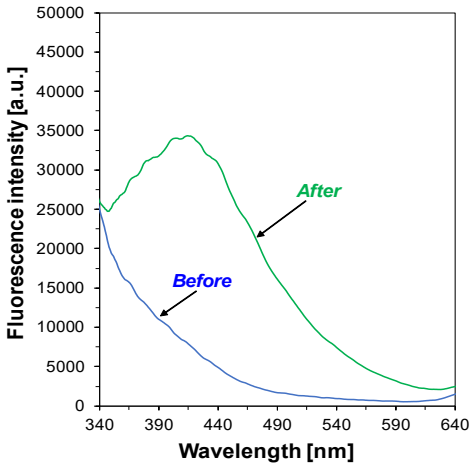


Figure S48. Changes in fluorescence of P4 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

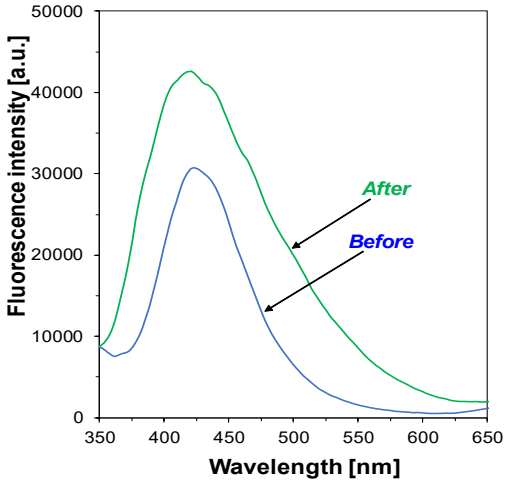


Figure S49. Changes in fluorescence of P5 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

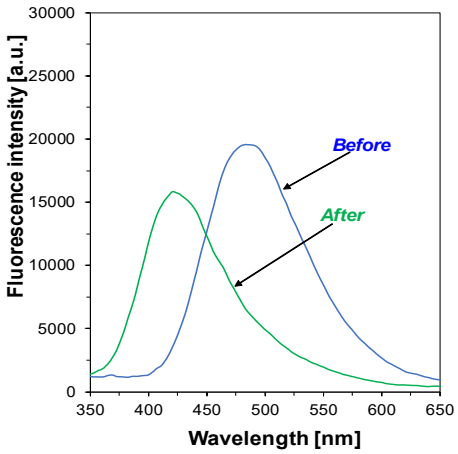


Figure S50. Changes in fluorescence of P6 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

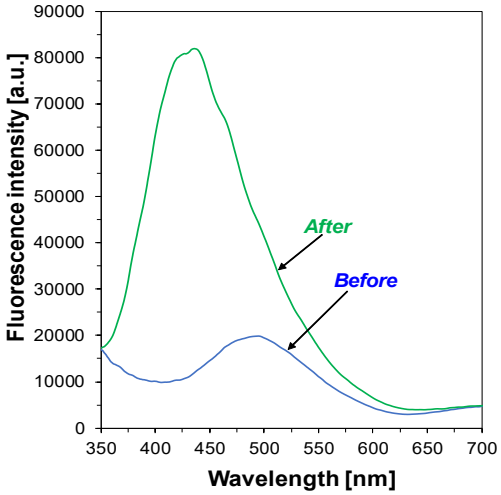


Figure S51. Changes in fluorescence of P7 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

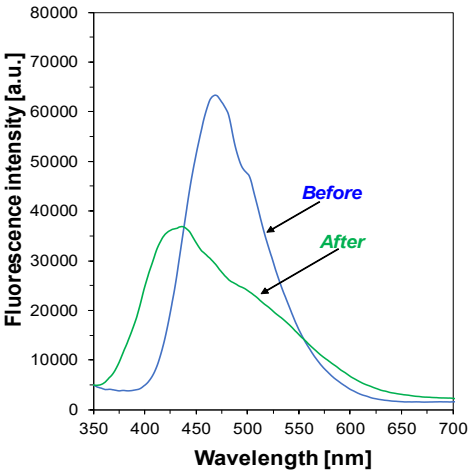
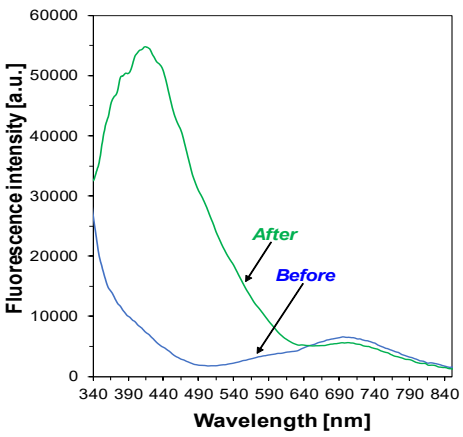


Figure S52. Changes in fluorescence of P8 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.



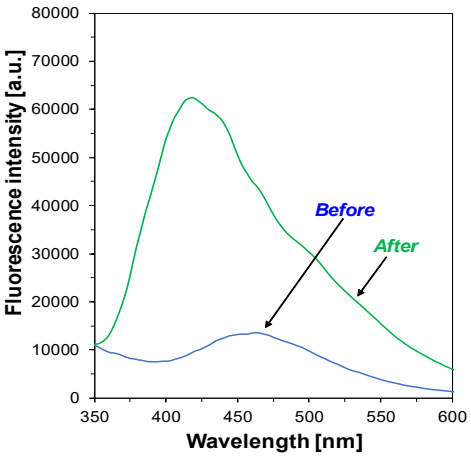


Figure S53. Changes in fluorescence of P9 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

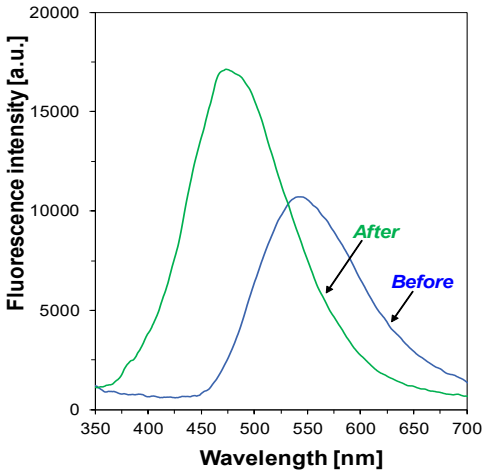


Figure S54. Changes in fluorescence of P10 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

Figure S55. Changes in fluorescence of P12 recorded during photopolymerization of TEGDVE with Speedcure 938 under 320 nm excitation.

7. Changes in fluorescent spectra during steady state photolysis @365 nm/700mA

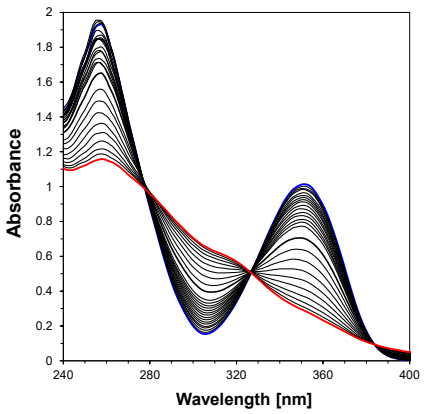


Figure S56. Steady state photolysis of P1 in acetonitrile solution recorded during illumination @365nm/700mA.

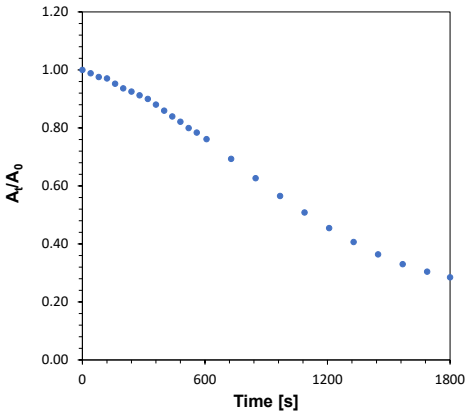


Figure S57. Changes in absorption during steady state photolysis of P1 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

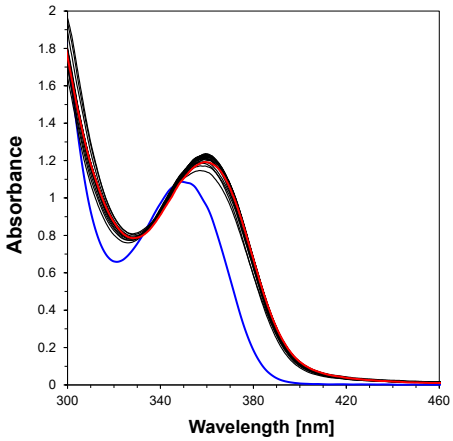


Figure S58. Steady state photolysis of P1 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

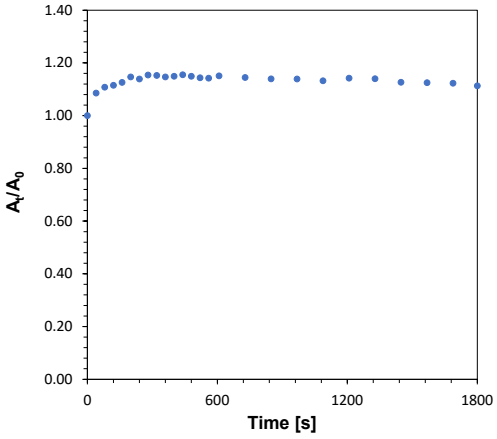


Figure S59. Changes in absorption during steady state photolysis of P1 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

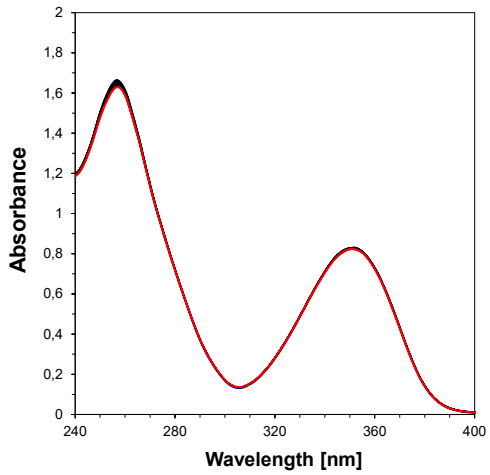


Figure S60. Steady state photolysis of P1 in acetonitrile solution recorded during illumination @405nm/700mA.

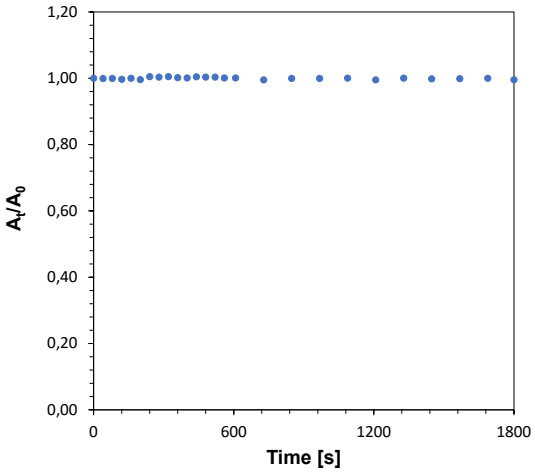


Figure S61. Changes in absorption during steady state photolysis of P1 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

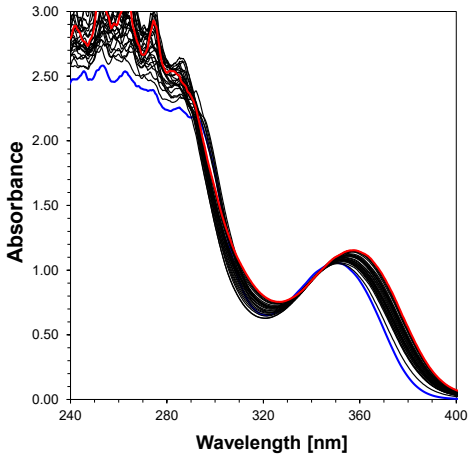


Figure S62. Steady state photolysis of P1 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

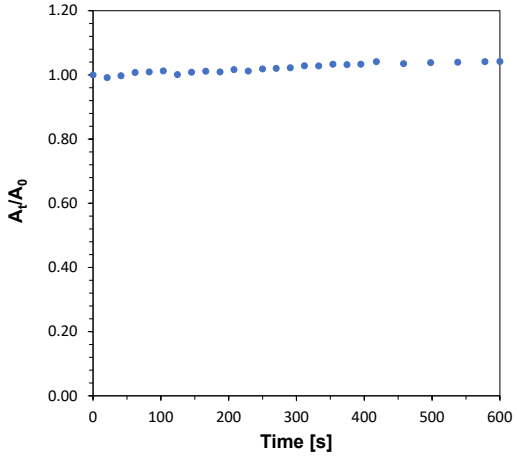


Figure S63. Changes in absorption during steady state photolysis of P1 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

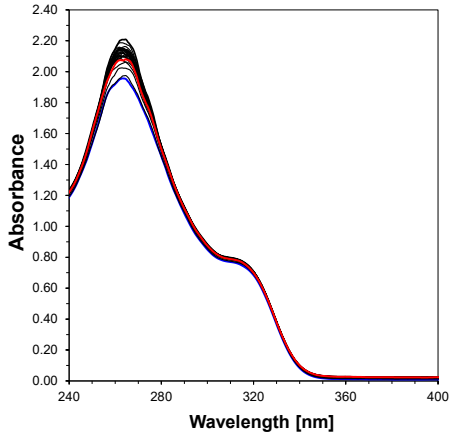


Figure S64. Steady state photolysis of P2 in acetonitrile solution recorded during illumination @365nm/700mA.

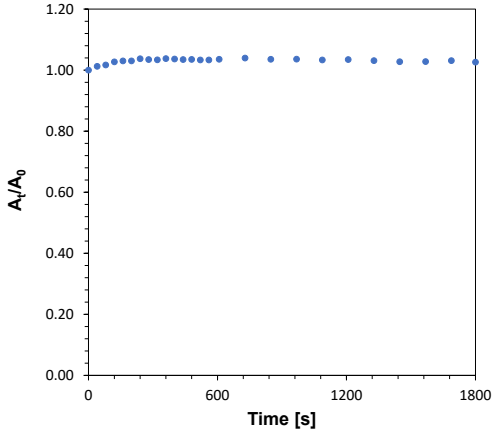


Figure S65. Changes in absorption during steady state photolysis of P2 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

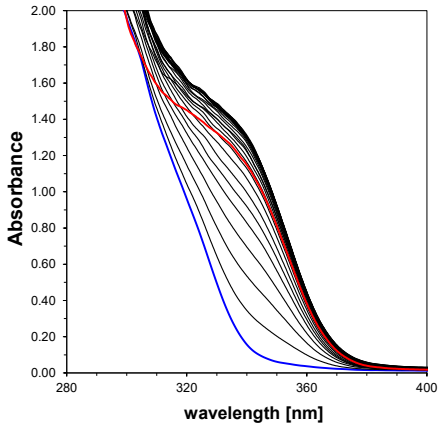


Figure S66. Steady state photolysis of P2 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

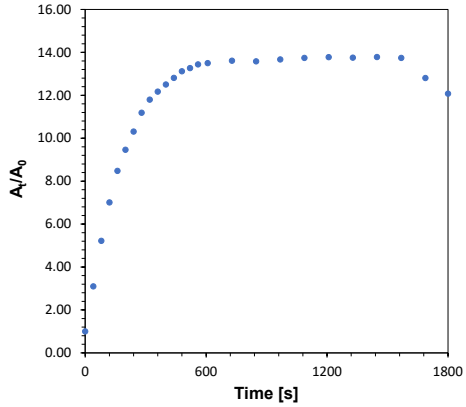


Figure S67. Changes in absorption during steady state photolysis of P2 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

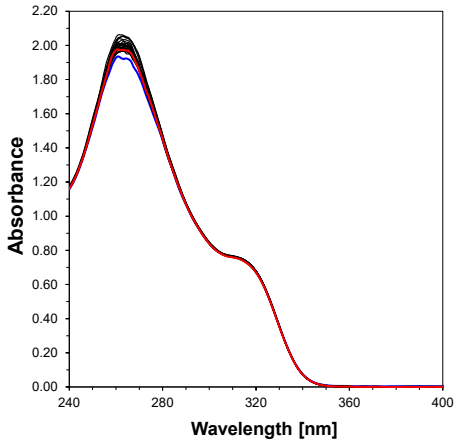


Figure S68. Steady state photolysis of P2 in acetonitrile solution recorded during illumination @405nm/700mA.

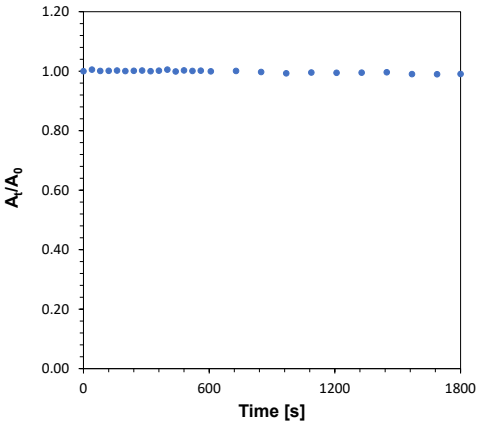


Figure S69. Changes in absorption during steady state photolysis of P2 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

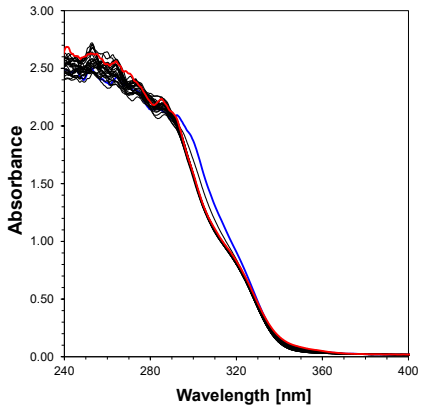


Figure S70. Steady state photolysis of P2 in

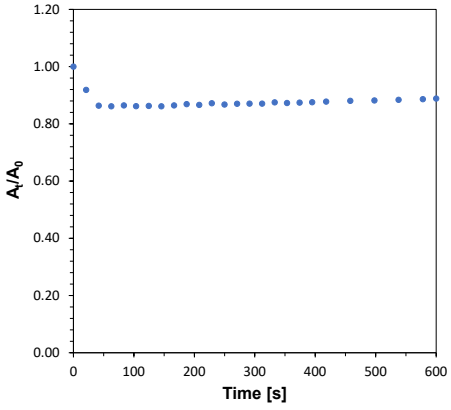


Figure S71. Changes in absorption during

acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

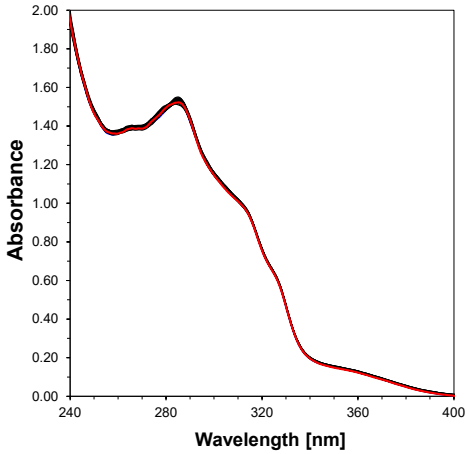


Figure S72. Steady state photolysis of P3 in acetonitrile solution recorded during illumination @365nm/700mA.

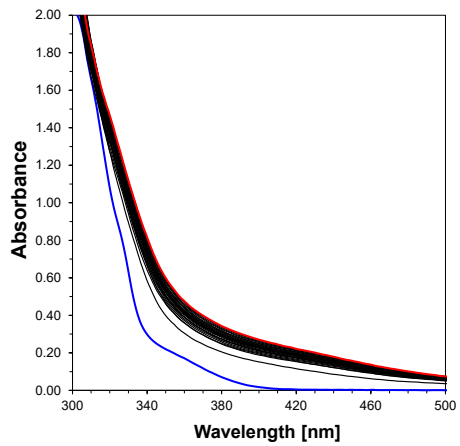


Figure S74. Steady state photolysis of P3 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

steady state photolysis of P2 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

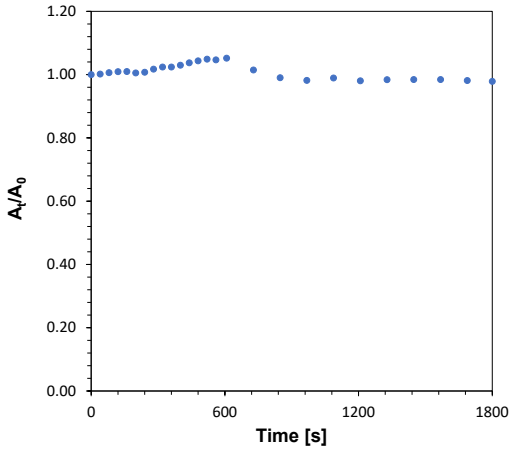


Figure S73. Changes in absorption during steady state photolysis of P3 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

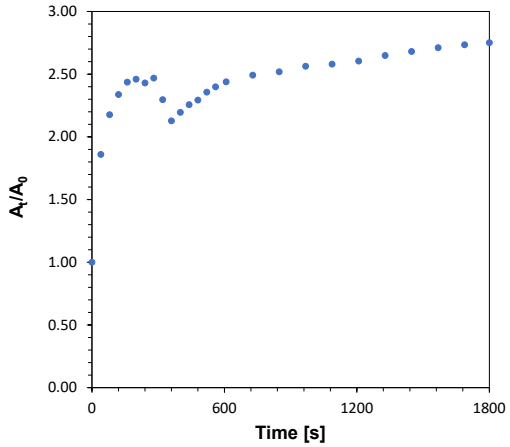


Figure S75. Changes in absorption during steady state photolysis of P3 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

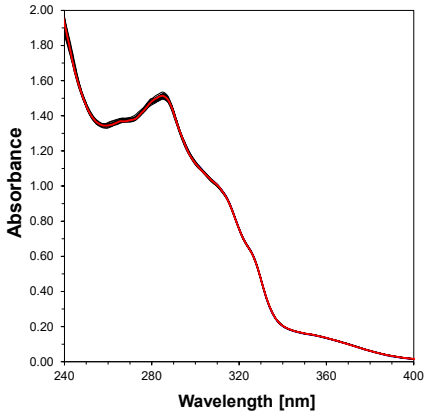


Figure S76. Steady state photolysis of P3 in acetonitrile solution recorded during illumination @405nm/700mA.

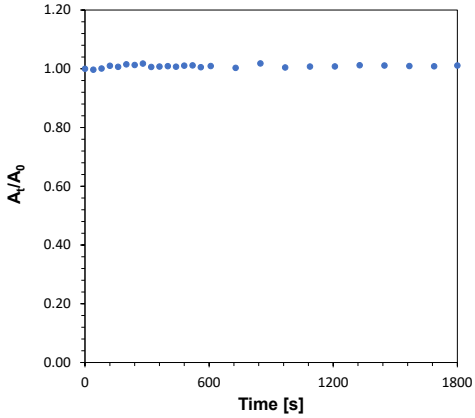


Figure S77. Changes in absorption during steady state photolysis of P3 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

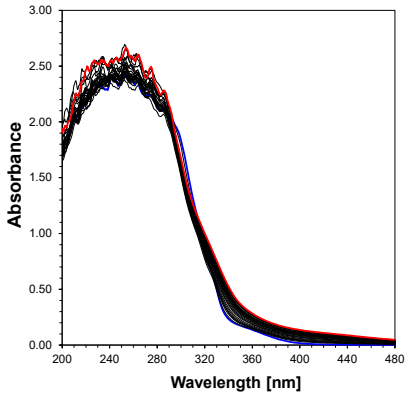


Figure S78. Steady state photolysis of P3 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

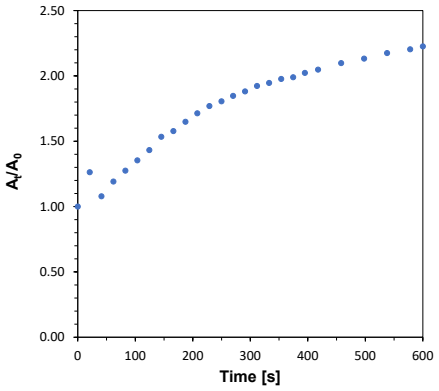


Figure S79. Changes in absorption during steady state photolysis of P3 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

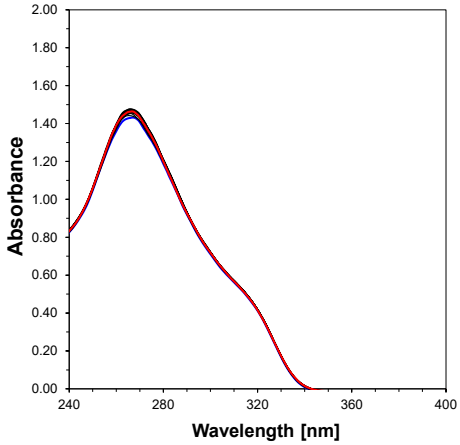


Figure S80. Steady state photolysis of P4 in

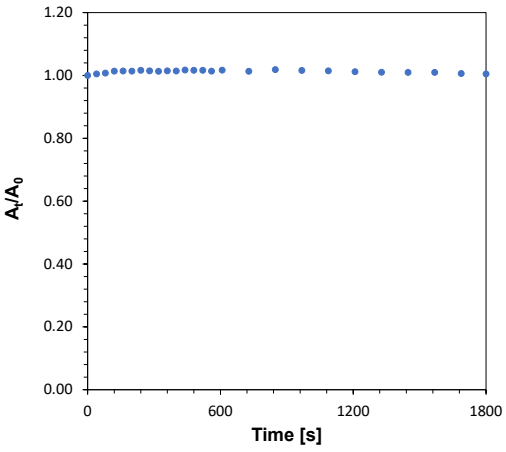


Figure S81. Changes in absorption during

acetonitrile solution recorded during illumination @365nm/700mA.

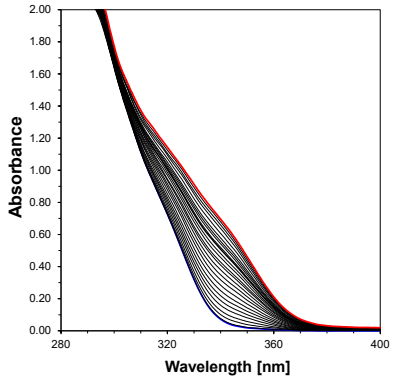


Figure S82. Steady state photolysis of P4 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

steady state photolysis of P4 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

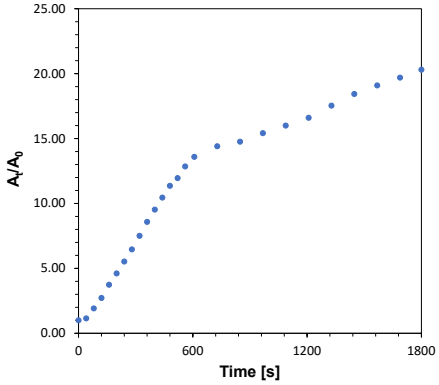


Figure S83. Changes in absorption during steady state photolysis of P4 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

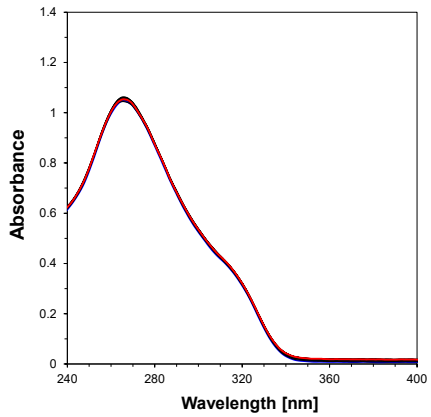


Figure S84. Steady state photolysis of P4 in acetonitrile solution recorded during illumination @405nm/700mA.

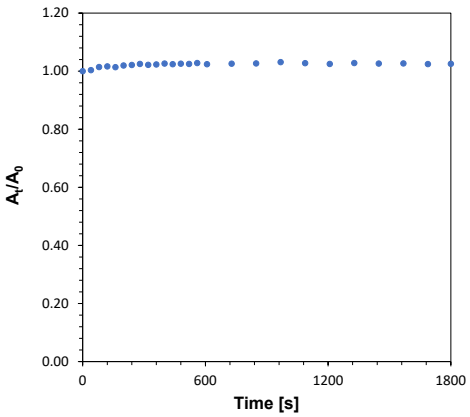


Figure S85. Changes in absorption during steady state photolysis of P4 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

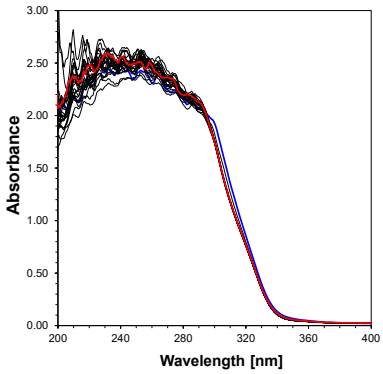


Figure S86. Steady state photolysis of P4 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

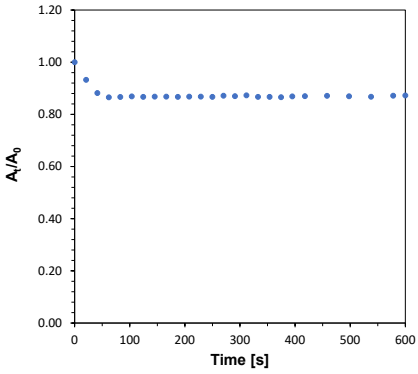


Figure S87. Changes in absorption during steady state photolysis of P4 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

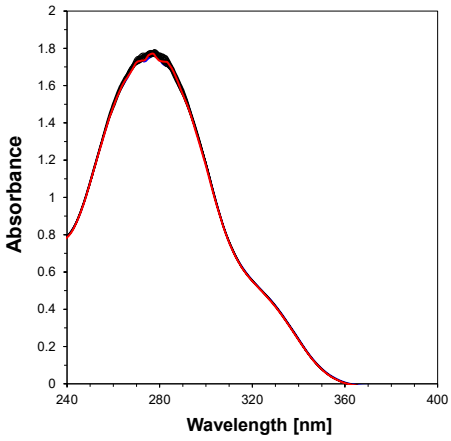


Figure S88. Steady state photolysis of P5 in acetonitrile solution recorded during illumination @365nm/700mA.

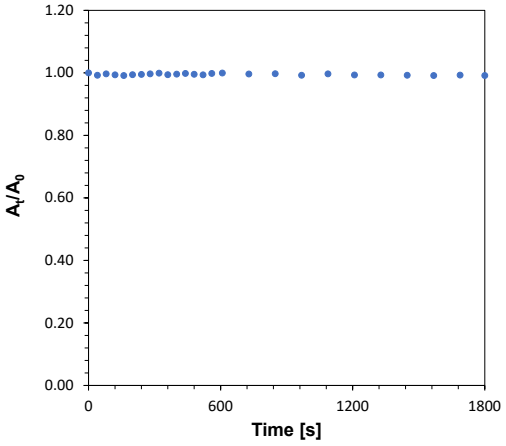


Figure S89. Changes in absorption during steady state photolysis of P5 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

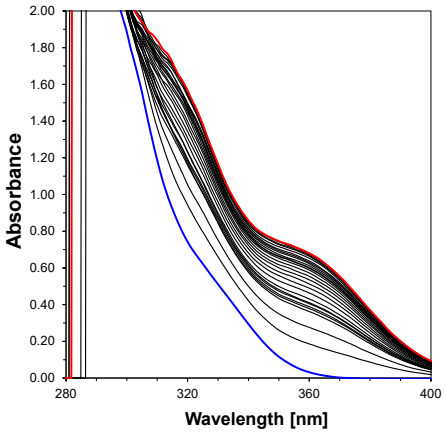


Figure S90. Steady state photolysis of P5 in

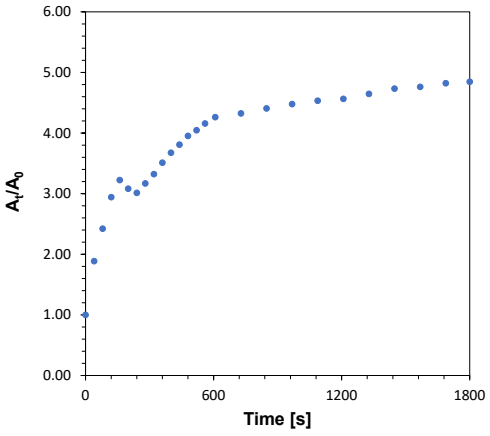


Figure S91. Changes in absorption during

acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

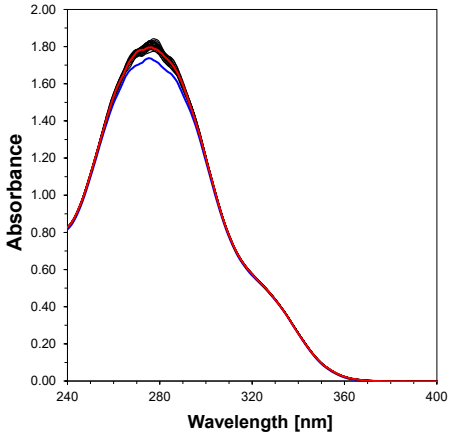


Figure S92. Steady state photolysis of P5 in acetonitrile solution recorded during illumination @405nm/700mA.

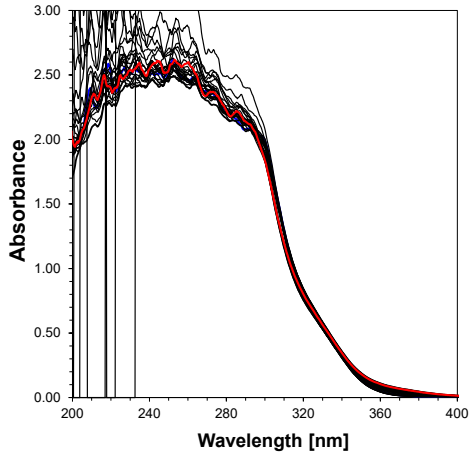


Figure S94. Steady state photolysis of P5 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

steady state photolysis of P5 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

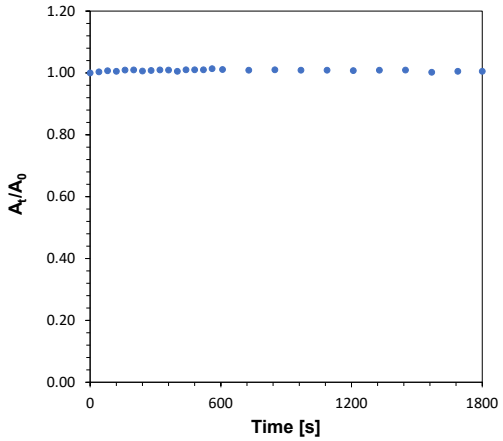


Figure S93. Changes in absorption during steady state photolysis of P5 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

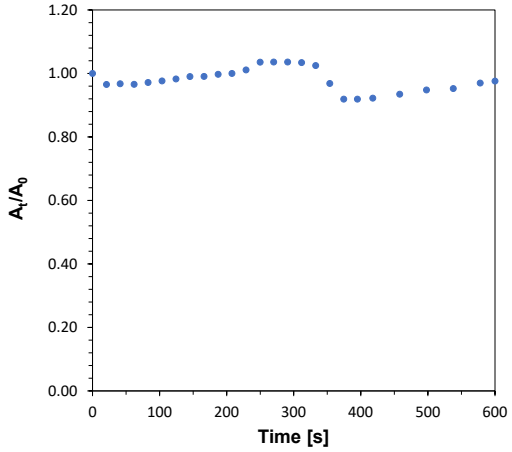


Figure S95. Changes in absorption during steady state photolysis of P5 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

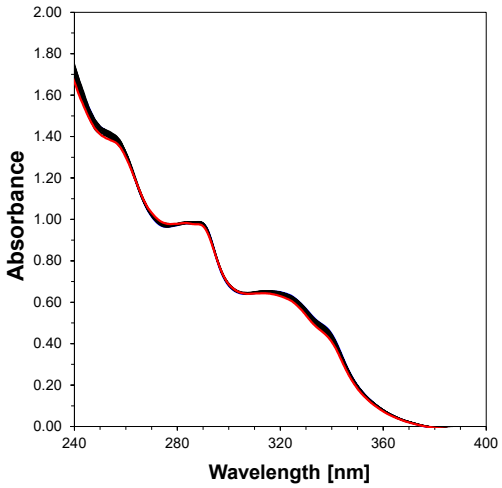


Figure S96. Steady state photolysis of P6 in acetonitrile solution recorded during illumination @365nm/700mA.

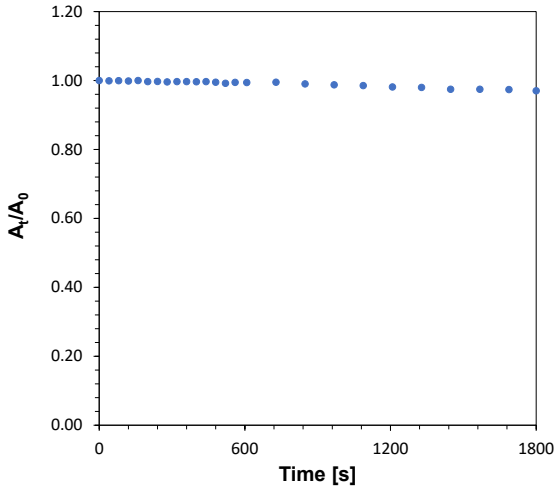


Figure S97. Changes in absorption during steady state photolysis of P6 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

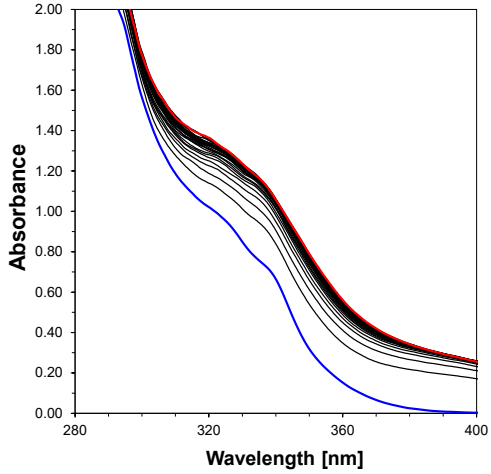


Figure S98. Steady state photolysis of P6 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

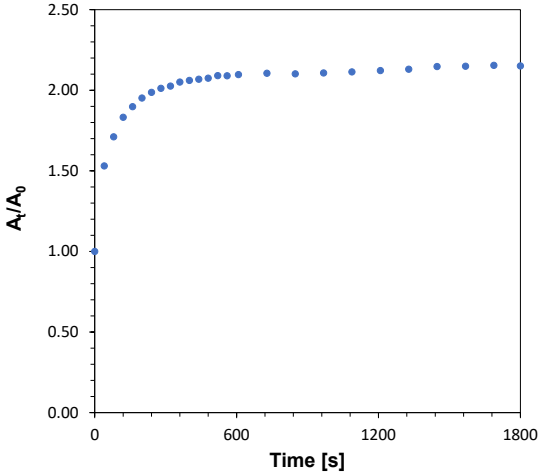


Figure S99. Changes in absorption during steady state photolysis of P6 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

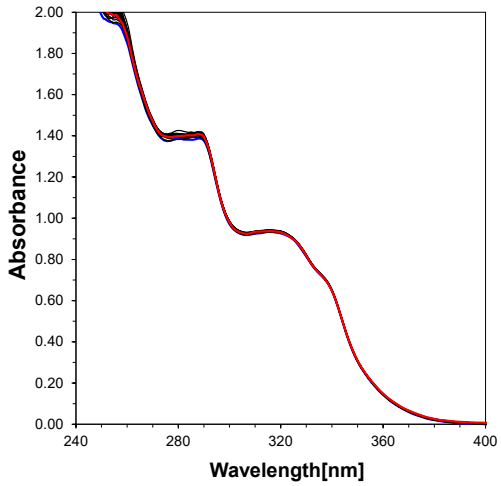


Figure S100. Steady state photolysis of P6 in acetonitrile solution recorded during illumination @405nm/700mA.

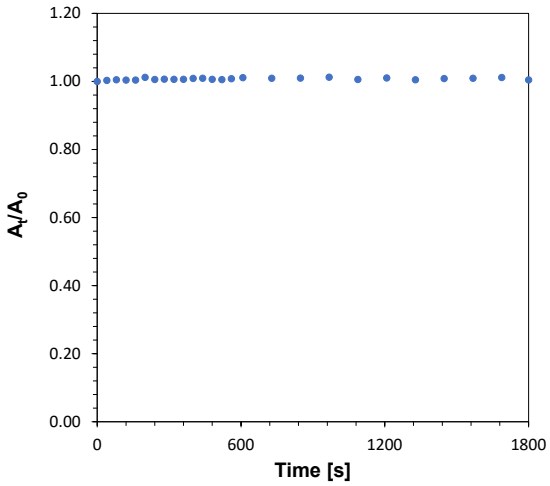


Figure S101. Changes in absorption during steady state photolysis of P6 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

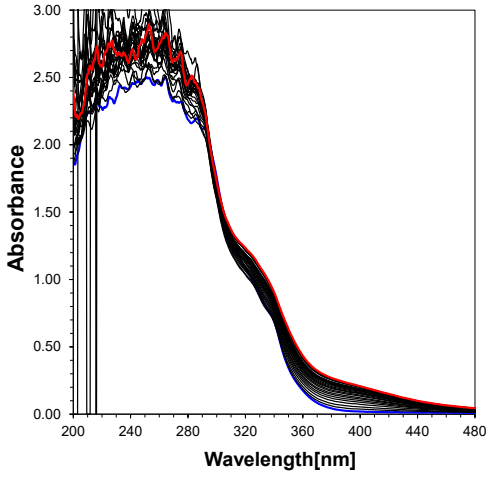


Figure S102. Steady state photolysis of P6 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

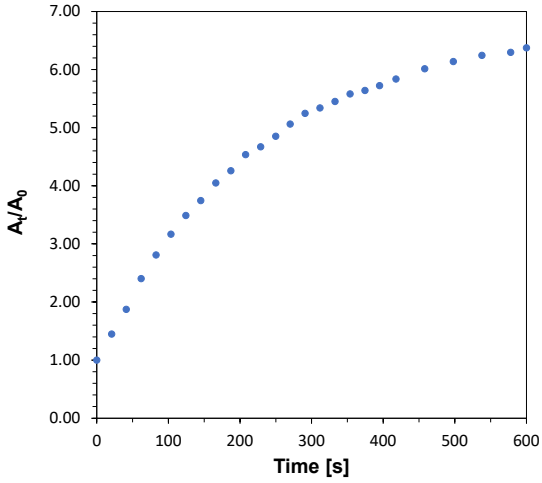


Figure S103. Changes in absorption during steady state photolysis of P6 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

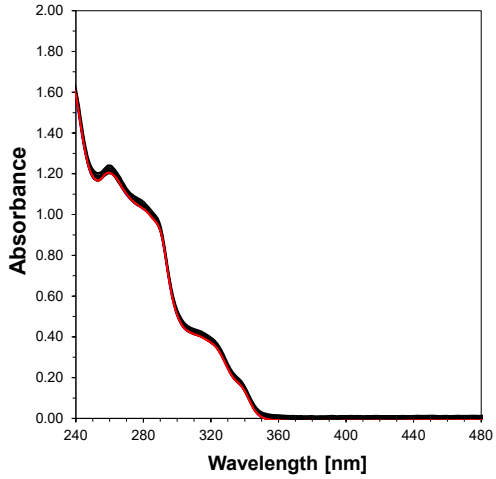


Figure S104. Steady state photolysis of P7 in acetonitrile solution recorded during illumination @365nm/700mA.

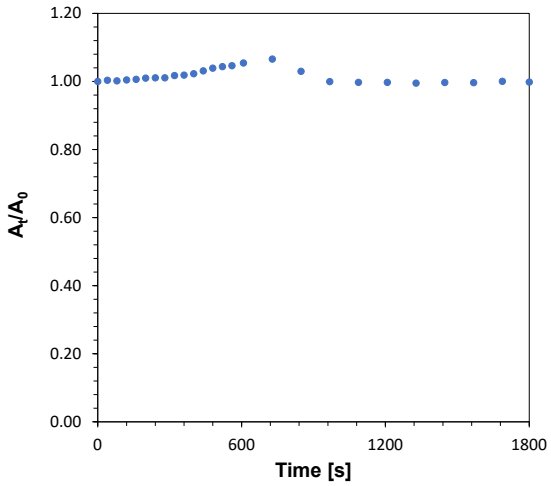


Figure S105. Changes in absorption during steady state photolysis of P7 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

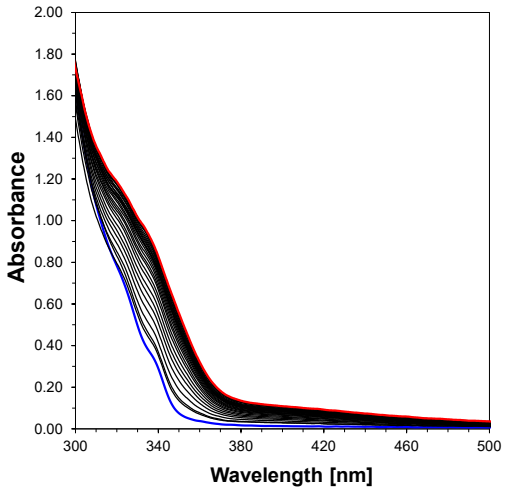


Figure S106. Steady state photolysis of P7 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

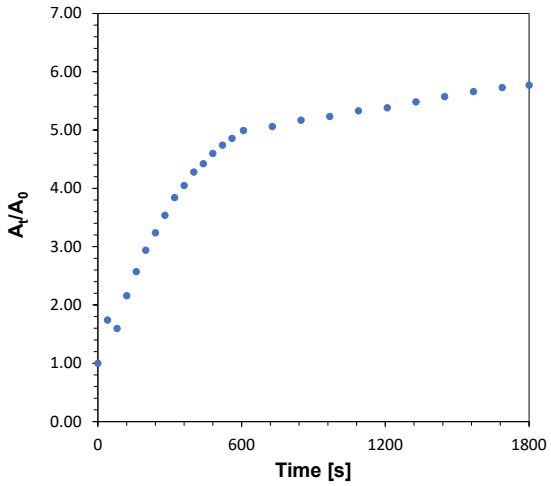


Figure S107. Changes in absorption during steady state photolysis of P7 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

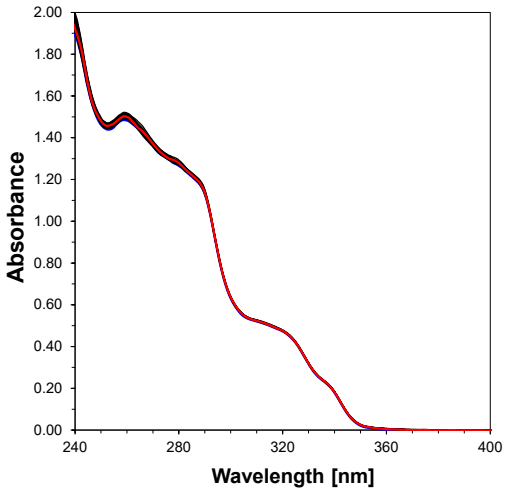


Figure S108. Steady state photolysis of P7 in acetonitrile solution recorded during illumination @405nm/700mA.

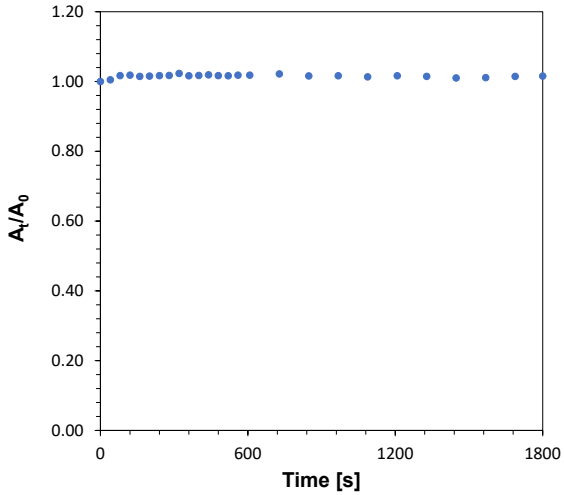


Figure S109. Changes in absorption during steady state photolysis of P7 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

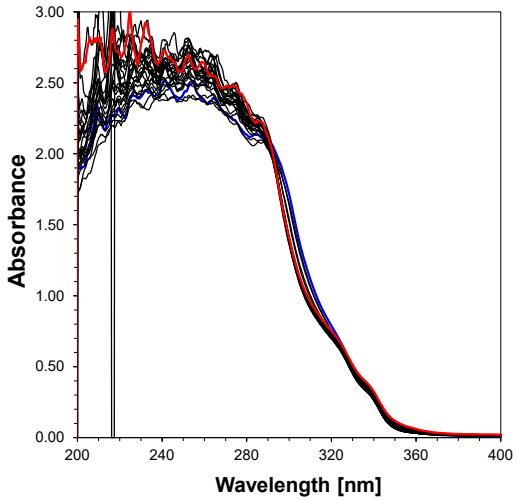


Figure S110. Steady state photolysis of P7 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

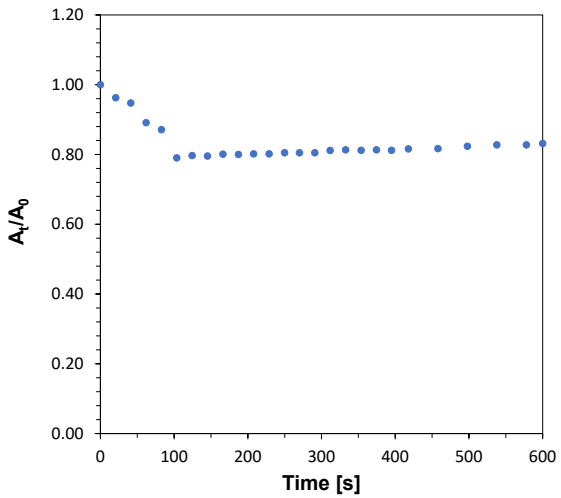


Figure S111. Changes in absorption during steady state photolysis of P7 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

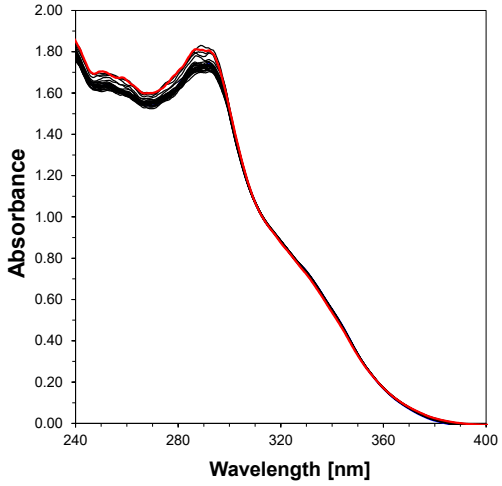


Figure S112. Steady state photolysis of P8 in acetonitrile solution recorded during illumination @365nm/700mA.

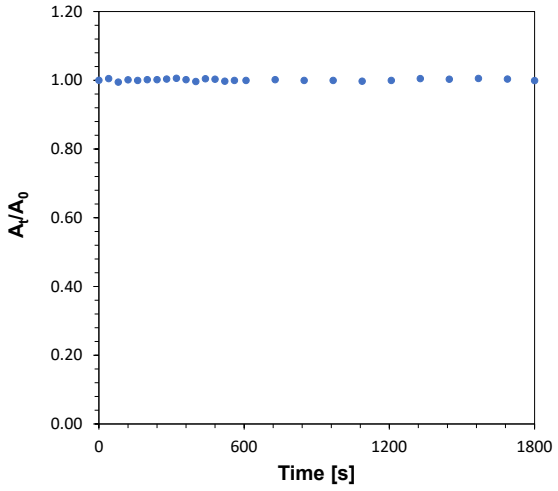


Figure S113. Changes in absorption during steady state photolysis of P8 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

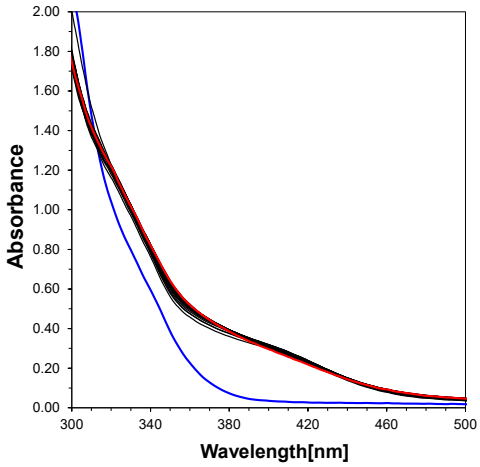


Figure S114. Steady state photolysis of P8 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

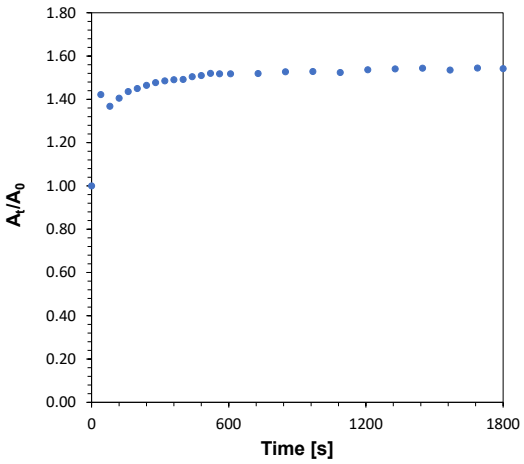


Figure S115. Changes in absorption during steady state photolysis of P8 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

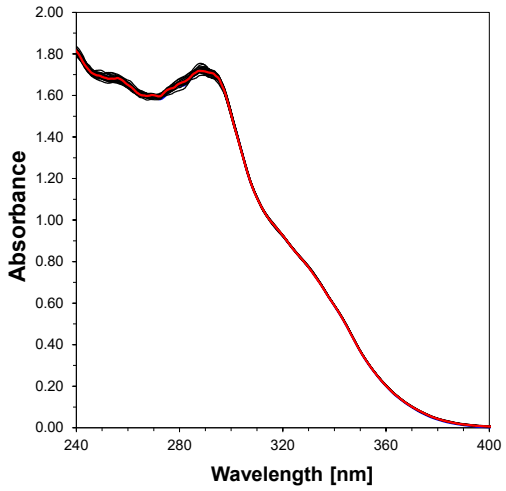


Figure S116. Steady state photolysis of P8 in acetonitrile solution recorded during illumination @405nm/700mA.

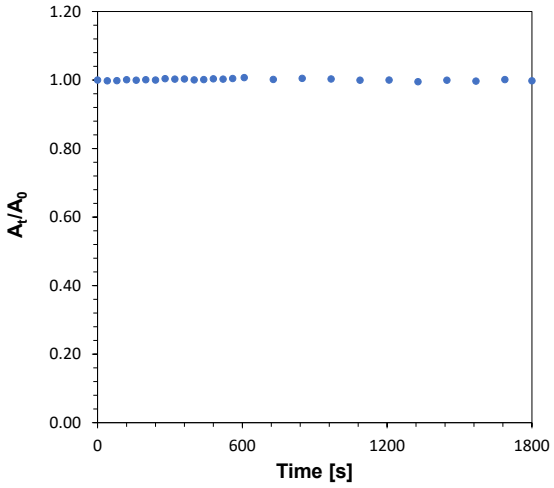


Figure S117. Changes in absorption during steady state photolysis of P8 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

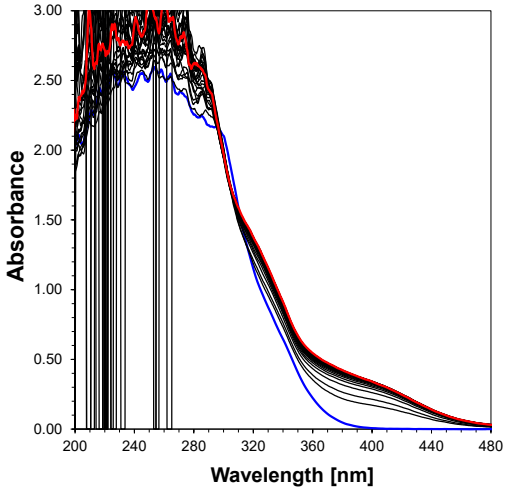


Figure S118. Steady state photolysis of P8 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

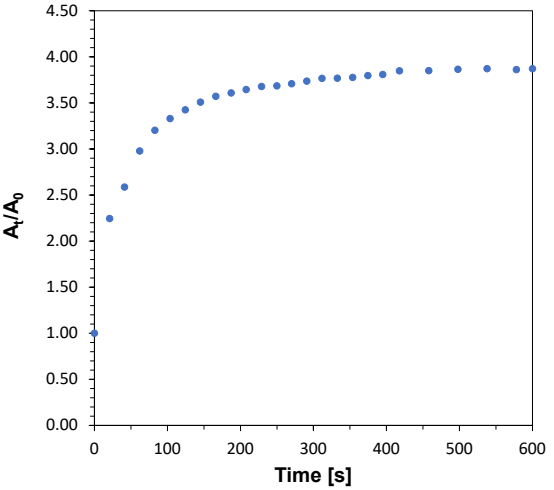


Figure S119. Changes in absorption during steady state photolysis of P8 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

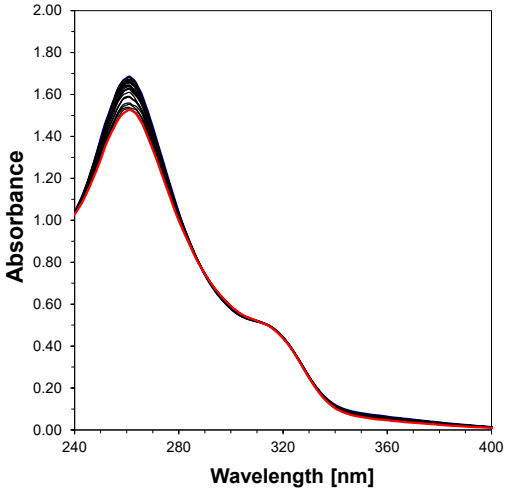


Figure S120. Steady state photolysis of P9 in acetonitrile solution recorded during illumination @365nm/700mA.

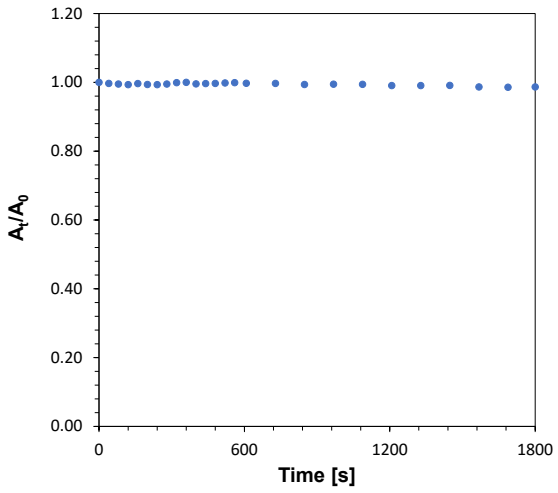


Figure S121. Changes in absorption during steady state photolysis of P9 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

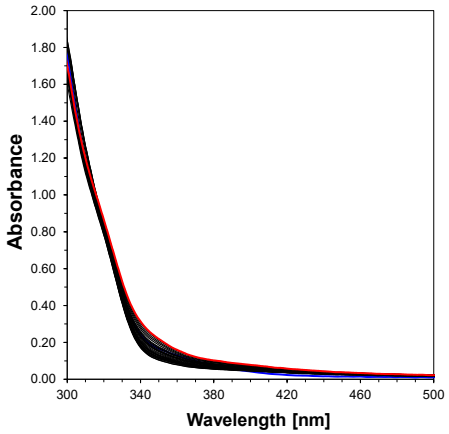


Figure S122. Steady state photolysis of P9 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

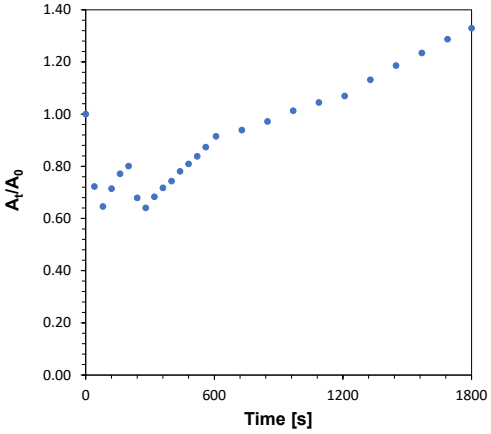


Figure S123. Changes in absorption during steady state photolysis of P9 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

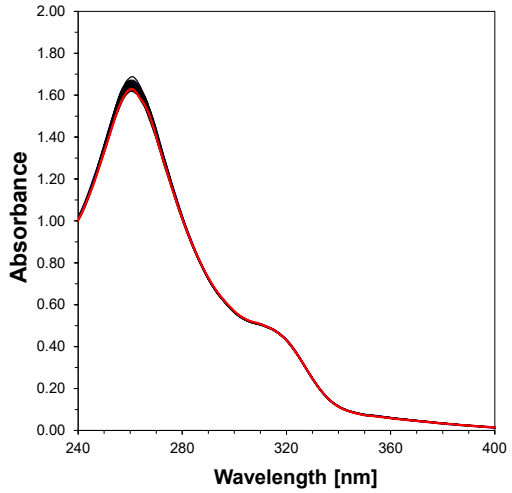


Figure S124. Steady state photolysis of P9 in acetonitrile solution recorded during illumination @405nm/700mA.

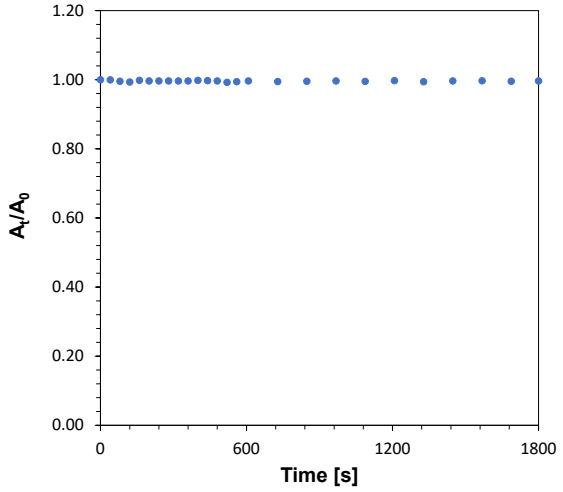


Figure S125. Changes in absorption during steady state photolysis of P9 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

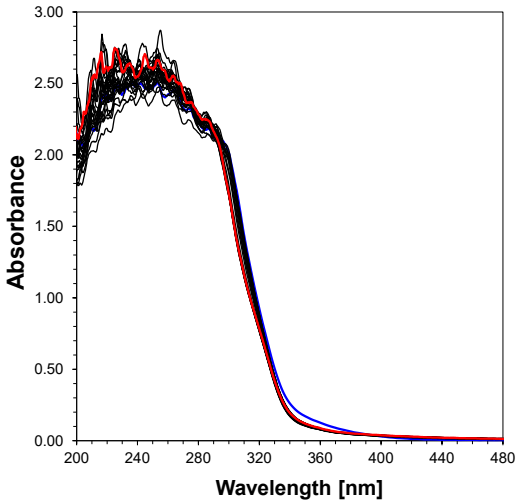


Figure S126. Steady state photolysis of P9 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

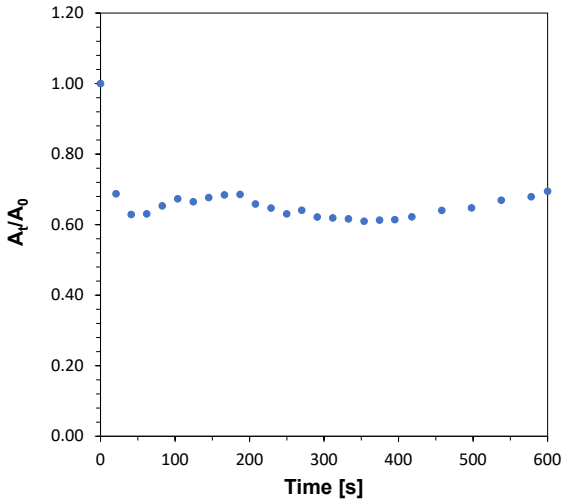


Figure S127. Changes in absorption during steady state photolysis of P9 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

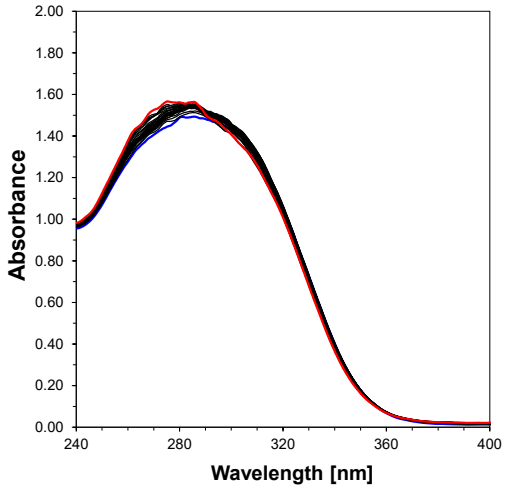


Figure S128. Steady state photolysis of P10 in acetonitrile solution recorded during illumination @365nm/700mA.

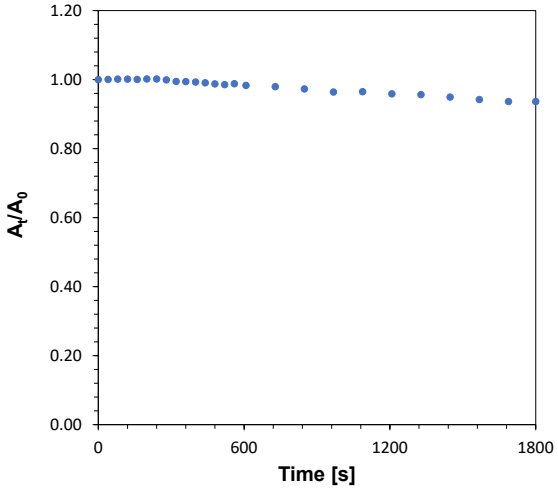


Figure S129. Changes in absorption during steady state photolysis of P10 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

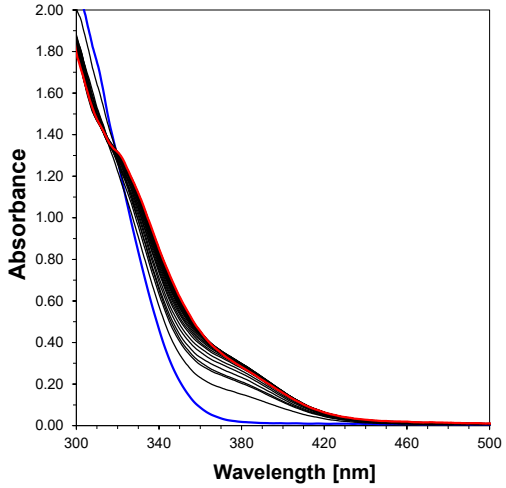


Figure S130. Steady state photolysis of P10 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

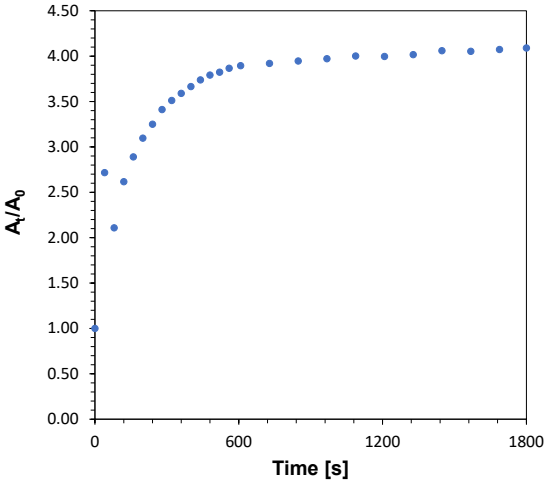


Figure S131. Changes in absorption during steady state photolysis of P10 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

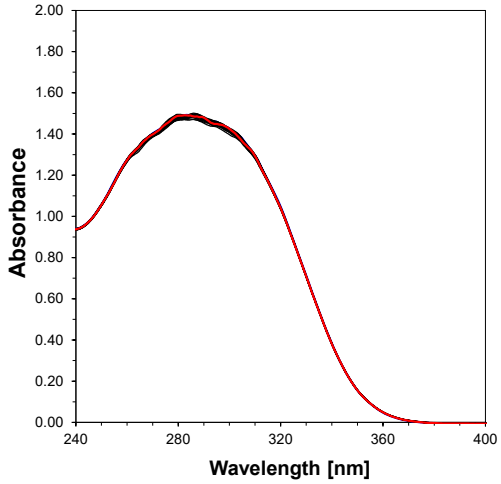


Figure S132. Steady state photolysis of P10 in acetonitrile solution recorded during illumination @405nm/700mA.

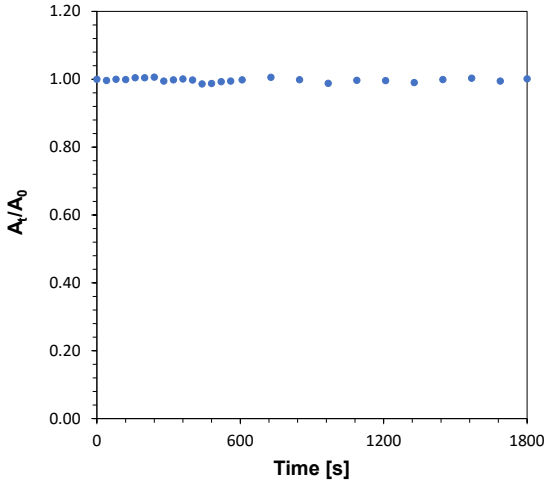


Figure S133. Changes in absorption during steady state photolysis of P10 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

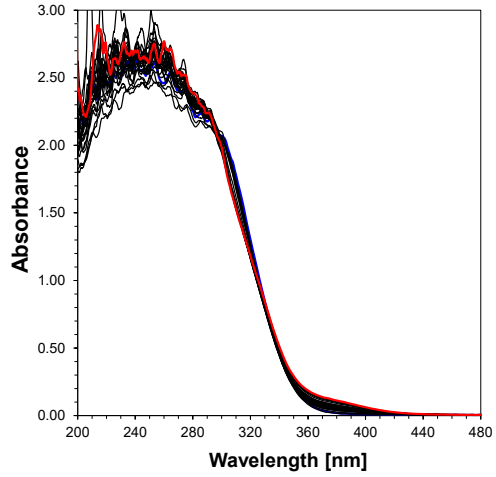


Figure S134. Steady state photolysis of P10 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

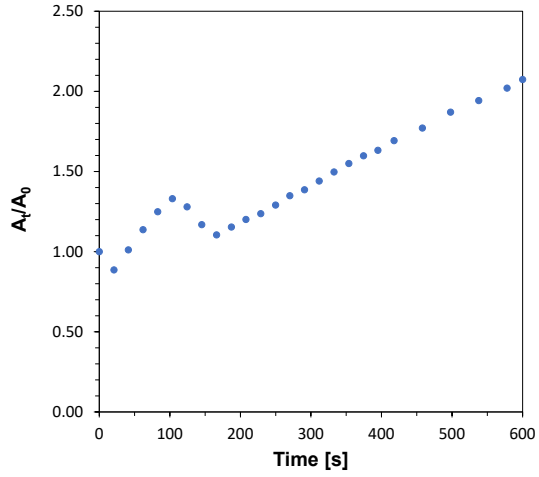


Figure S135. Changes in absorption during steady state photolysis of P10 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

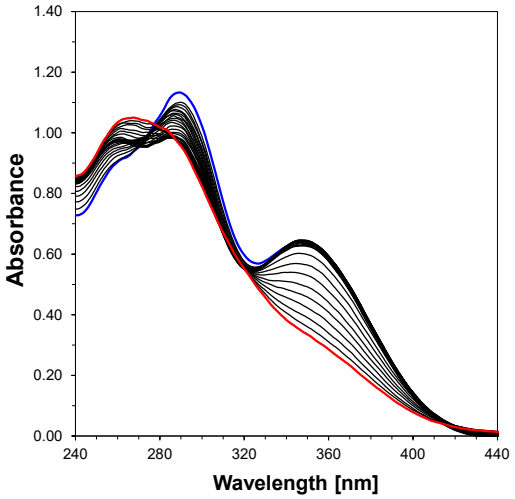


Figure S136. Steady state photolysis of P11 in acetonitrile solution recorded during illumination @365nm/700mA.

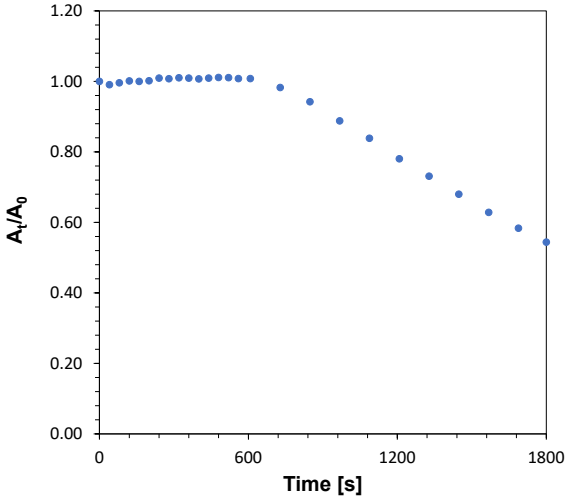


Figure S137. Changes in absorption during steady state photolysis of P11 in acetonitrile solution recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

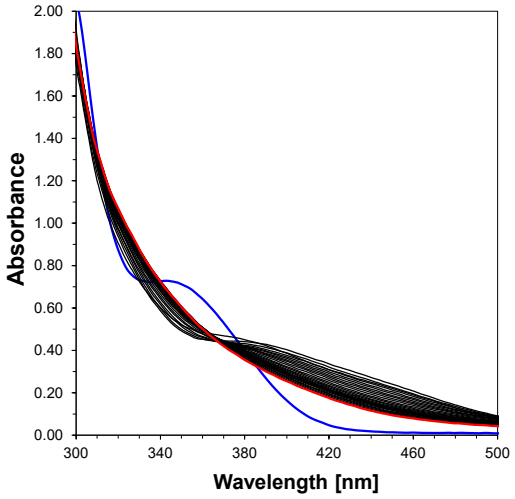


Figure S138. Steady state photolysis of P11 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA.

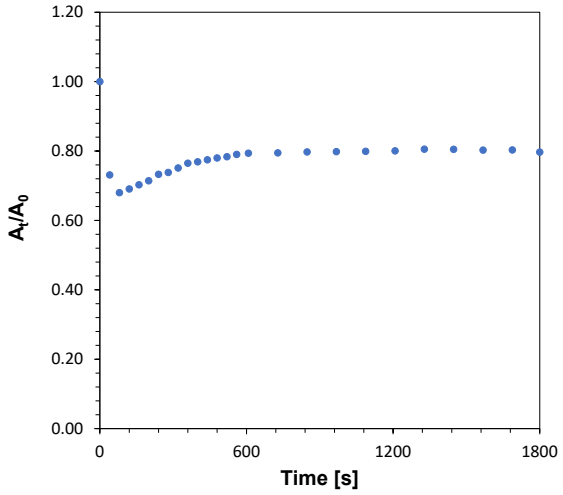


Figure S139. Changes in absorption during steady state photolysis of P11 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @365nm/700mA. Absorbance was monitored at the highest wavelength maxima.

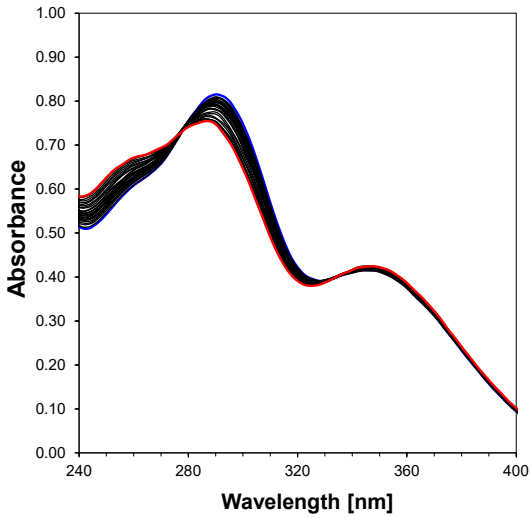


Figure S140. Steady state photolysis of P11 in acetonitrile solution recorded during illumination @405nm/700mA.

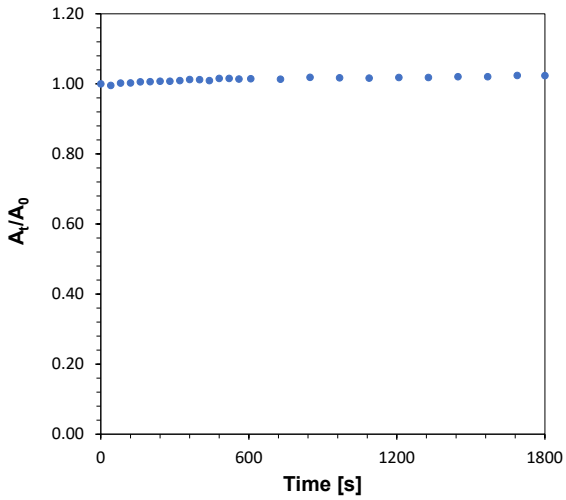


Figure S141. Changes in absorption during steady state photolysis of P11 in acetonitrile solution recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.

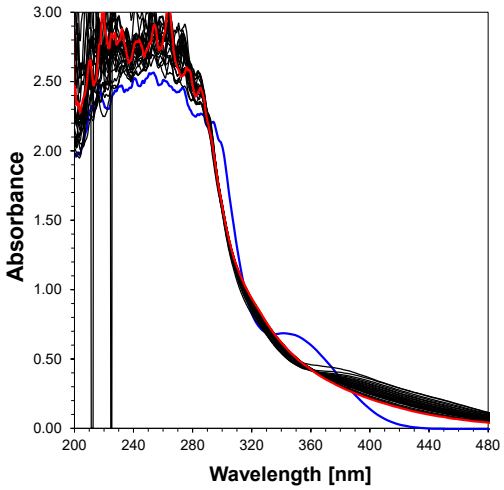


Figure S142. Steady state photolysis of P11 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA.

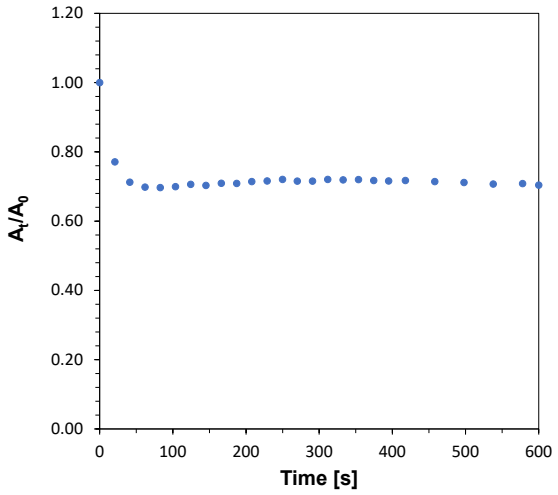


Figure S143. Changes in absorption during steady state photolysis of P11 in acetonitrile solution with addition of Speedcure 938 recorded during illumination @405nm/700mA. Absorbance was monitored at the highest wavelength maxima.