Synthesis of Azo Carbonates Monomers and Biocompatibility Study of Poly(Azo-Carbonate-Urethane)s.

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Supplementary Material

Contents:

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1. NMR

Figure 1. $^1$H NMR spectrum of compound 1.

Figure 2. $^{13}$C NMR spectrum of compound 1.
**Figure 3.** $^1$H-$^{13}$C HSQC spectrum of compound 1.

![HSQC spectrum of compound 1](image)

**Figure 4.** $^1$H-$^{13}$C HMBC spectrum of compound 1.

![HMBC spectrum of compound 1](image)
Figure 5. $^1$H NMR spectrum of compound 2.

Figure 6. $^{13}$C NMR spectrum of compound 2.
Figure 7. $^1$H-$^{13}$C HSQC spectrum of compound 2.

Figure 8. $^1$H-$^{13}$C HMBC spectrum of compound 2.
Figure 9. $^1$H-$^{13}$C HMBC spectrum of compound 2 (zoom of aliphatic region).

Figure 10. $^1$H-$^{13}$C HMBC spectrum of compound 2 (zoom of aromatic region).
**Figure 11.** $^1$H NMR spectrum of compound 3.

**Figure 12.** $^{13}$C NMR spectrum of compound 3.
Figure 13. $^1$H-$^{13}$C HSQC spectrum of compound 3.

Figure 14. $^1$H-$^{13}$C HMBC spectrum of compound 3.
Figure 15. $^1$H-$^{13}$C HMBC spectrum of compound 3 (zoom of aliphatic region).

Figure 16. $^1$H-$^{13}$C HMBC spectrum of compound 3 (zoom of aromatic region).
Figure 17. $^1$H NMR spectrum of compound 4.

Figure 18. $^{13}$C NMR spectrum of compound 4.
Figure 19. $^1$H-$^{13}$C HSQC spectrum of compound 4.

Figure 20. $^1$H-$^{13}$C HMBC spectrum of compound 4.
Figure 21. $^{1}$H-$^{13}$C HMBC spectrum of compound 4 (zoom of aliphatic region).

Figure 22. $^{1}$H-$^{13}$C HMBC spectrum of compound 4 (zoom of aromatic region).
Figure 23. $^1$H NMR spectrum of compound 5.

Figure 24. $^{13}$C NMR spectrum of compound 5.
Figure 25. $^1$H-$^{13}$C HSQC spectrum of compound 5.

Figure 26. $^1$H-$^{13}$C HMBC spectrum of compound 5.
Figure 27. $^1$H-$^{13}$C HMBC spectrum of compound 5 (zoom of aliphatic region).

Figure 28. $^1$H-$^{13}$C HMBC spectrum of compound 5 (zoom of aromatic region).
Figure 29. $^1$H NMR spectrum of compound 6.

![H NMR spectrum of compound 6.](image)

Figure 30. $^{13}$C NMR spectrum of compound 6.

![$^{13}$C NMR spectrum of compound 6.](image)
**Figure 31.** $^1$H-$^{13}$C HSQC spectrum of compound 6.

**Figure 32.** $^1$H-$^{13}$C HMBC spectrum of compound 6.
**Figure 33.** $^1$H-$^{13}$C HMBC spectrum of compound 6 (zoom of aliphatic region).

**Figure 34.** $^1$H-$^{13}$C HMBC spectrum of compound 6 (zoom of aromatic region).
Figure 35. $^1$H NMR spectrum of compound 7.

Figure 36. $^{13}$C NMR spectrum of compound 7.
Figure 37. $^1$H-$^{13}$C HSQC spectrum of compound 7.

Figure 38. $^1$H-$^{13}$C HMBC spectrum of compound 7.
Figure 39. $^1$H NMR spectrum of compound 8.

Figure 40. $^{13}$C NMR spectrum of compound 8.
Figure 41. $^1$H-$^{13}$C HSQC spectrum of compound 8.

Figure 42. $^1$H-$^{13}$C HMBC spectrum of compound 8.
Figure 43. $^1$H-$^{13}$C HMBC spectrum of compound 8 (zoom of aliphatic region).

Figure 44. $^1$H-$^{13}$C HMBC spectrum of compound 8 (zoom of aromatic region).
Figure 45. $^{13}$C NMR spectrum of compound PCU 1.

Figure 46. $^{13}$C NMR spectrum of compound PCU 2.
2. EI-MS

Figure 47. EI-MS spectrum of compound 1.

Figure 48. EI-MS spectrum of compound 2.

Figure 49. EI-MS spectrum of compound 3.
Figure 50. EI-MS spectrum of compound 4.

Figure 51. EI-MS spectrum of compound 5.

Figure 52. EI-MS spectrum of compound 8.
3. FT-IR

**Figure 53.** FT-IR spectrum of compound 1 in KBr pellet.

![FT-IR spectrum of compound 1](image1)

**Figure 54.** FT-IR spectrum of compound 2 in KBr pellet.

![FT-IR spectrum of compound 2](image2)
Figure 55. FT-IR spectrum of compound 3 in KBr pellet.

Figure 56. FT-IR spectrum of compound 4 in KBr pellet.
Figure 57. FT-IR spectrum of compound 5 in KBr pellet.

![FT-IR Spectrum of Compound 5](image1)

Figure 58. FT-IR spectrum of compound 6 in KBr pellet.

![FT-IR Spectrum of Compound 6](image2)
**Figure 59.** FT-IR spectrum of compound 7 in KBr pellet.

**Figure 60.** FT-IR spectrum of compound 8 in KBr pellet.
Figure 61. FT-IR spectrum of PCU 1 in KBr pellet.

Figure 62. FT-IR spectrum of PCU 2 in KBr pellet.
4. UV-Vis

**Figure 63.** UV-Vis spectrum of compound 1 in DMSO.

**Figure 64.** UV-Vis spectrum of compound 2 in DMSO.
Figure 65. UV-Vis spectrum of compound 3 in DMSO.

Figure 66. UV-Vis spectrum of compound 4 in DMSO.
Figure 67. UV-Vis spectrum of compound 5 in DMSO.

Figure 68. UV-Vis spectrum of compound 6 in DMSO.
**Figure 69.** UV-Vis spectrum of compound 7 in DMSO.

**Figure 70.** UV-Vis spectrum of compound 8 in DMSO.
Figure 71. UV-Vis spectrum of PCU 1 in DMSO.

Figure 72. UV-Vis spectrum of PCU 2 in DMSO.