Electronic Supplementary Information (ESI)

Highly efficient one-step microwave-assisted synthesis of structurally diverse bis-substituted α-amino acid derived diimides

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1. $^1$H and $^{13}$C NMR Spectra

1.1 PMIs

Figure S1. $^1$H NMR (300 MHz DMSO d-6) spectrum of PMI-Phe.

Figure S2. $^{13}$C NMR (75 MHz DMSO d-6) spectrum of PMI-Phe.
Figure S3. $^1$H NMR (300 MHz DMSO d-6) spectrum of PMI-Tyr.

Figure S4. $^{13}$C NMR (75 MHz DMSO d-6) spectrum of PMI-Tyr.
Figure S5. $^1$H NMR (300 MHz DMSO $d$-$6$) spectrum of PMI-Ile.

Figure S6. $^{13}$C NMR (75 MHz DMSO $d$-$6$) spectrum of PMI-Ile.
Figure S7. $^1$H NMR (300 MHz DMSO $d$-6) spectrum of PMI-Lys.

Figure S8. $^{13}$C NMR (75 MHz DMSO $d$-6) spectrum of PMI-Lys.
Figure S9. $^1$H NMR (300 MHz DMSO $d_{-6}$) spectrum of PMI-Cys.

Figure S10. $^{13}$C NMR (75 MHz DMSO $d_{-6}$) spectrum of PMI-Cys.
1.2 BPDIs

**Figure S11.** $^1$H NMR (300 MHz DMSO $d$-6) spectrum of BPDI-Phe.

**Figure S12.** $^{13}$C NMR (75 MHz DMSO $d$-6) spectrum of BPDI-Phe.
Figure S13. $^1$H NMR (300 MHz DMSO d-6) spectrum of BPDI-Tyr.

Figure S14. $^{13}$C NMR (75 MHz DMSO d-6) spectrum of BPDI-Tyr.
Figure S15. $^1$H NMR (300 MHz DMSO $d$-6) spectrum of BPDI-Ile.

Figure S16. $^{13}$C NMR (75 MHz DMSO $d$-6) spectrum of BPDI-Ile.
Figure S17. $^1$H NMR (300 MHz DMSO $d$-6) spectrum of BPDI-Lys.

Figure S18. $^{13}$C NMR (75 MHz DMSO $d$-6) spectrum of BPDI-Lys.
Figure S19. $^1$H NMR (300 MHz DMSO $d$-$6$) spectrum of BPDI-Cys.

Figure S20. $^{13}$C NMR (75 MHz DMSO $d$-$6$) spectrum of BPDI-Cys.
1.3 BTDIs

Figure S21. $^1$H NMR (300 MHz DMSO d-6) spectrum of BTDI-Phe.

Figure S22. $^{13}$C NMR (75 MHz DMSO d-6) spectrum of BTDI-Phe.
Figure S23. $^1$H NMR (300 MHz DMSO d-6) spectrum of BTDI-Tyr.

Figure S24. $^{13}$C NMR (75 MHz DMSO d-6) spectrum of BTDI-Tyr.
Figure S25. $^1$H NMR (300 MHz DMSO $d$-$6$) spectrum of BPDI-Ile.

Figure S26. $^{13}$C NMR (75 MHz DMSO $d$-$6$) spectrum of BTDI-Ile.
Figure S27. $^1$H NMR (300 MHz DMSO $d$-6) spectrum of BTDI-Lys.

Figure S28. $^{13}$C NMR (75 MHz DMSO $d$-6) spectrum of BTDI-Lys.
Figure S29. $^1$H NMR (300 MHz DMSO $d$-$6$) spectrum of BTDI-Cys.

Figure S30. $^{13}$C NMR (75 MHz DMSO $d$-$6$) spectrum of BTDI-Cys.