Chirality Driven Molecular Packing Structure Difference and Potential Application for 3D Printing of A Series of *bola*-Type Ala-Phe Dipeptides

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Fig. S1 ¹H NMR spectra of (a) (D, D)-**B1** and (b) (D, L)-**B1** in the mixed solvent of $CD_3OD/MeOH/D_2O/H_2O$ (v/v/v/v = 12/68/3/17) recorded at different temperatures at a concentration of 15 g L⁻¹.



Fig. S2 FT-IR spectra of the solutions and gels of (D, D)-**B1** and (D, L)-**B1** in the mixed solvent of CD_3OD/D_2O (8/2, v/v) at a concentration of 15 g L⁻¹. (a) 4000-2800 cm⁻¹, (b) 1800-1400 cm⁻¹.



Fig. S3 (a) SAXRD and (b) WAXRD patterns of the xerogels of (D, D)-**B1** and (D, L)-**B1**. Each sample was prepared in the mixed solvent of methanol/ H_2O (v/v = 8/2) at a concentration of 15 g L⁻¹.



Fig. S4 Photographs of bola-type dipeptide organogels prepared in MMA (1), styrene (2), 4-methylstryene (3) and 4-*tert*-butylstyrene (4).

Table S1 Critical gelation concentration (CGC) of four *bola*-type dipeptides in styrene derivatives and MMA. (g L⁻

¹/25 °C).

	(L, L)- B1	(L, D)- B1	(D, L)- B1	(D, D)- B1
styrene	7.5	7.5	7.5	7.5
MMA	10	10	10	10
4-methylstyrene	7.5	7.5	7.5	7.5
4- <i>tert</i> -butylstyrene	7.5	7.5	7.5	7.5