

Supplementary Information

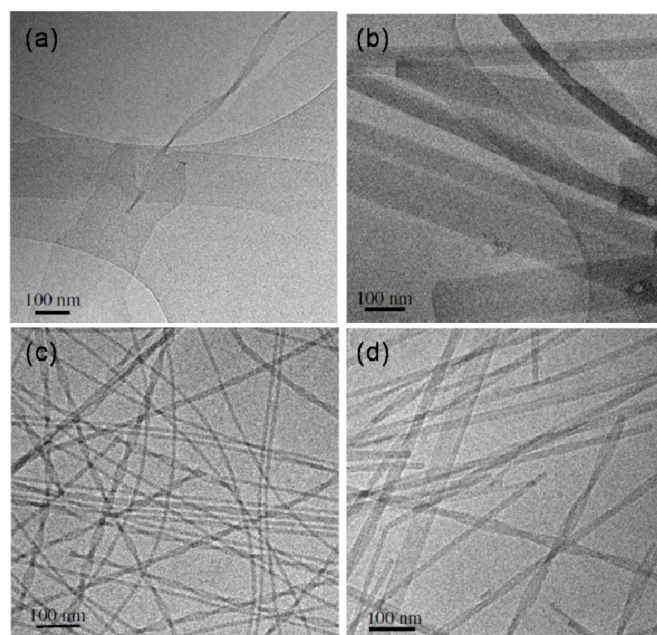


Figure S1 – CryoTEM micrographs of 20 mM samples of (a) Fmoc-SF-OMe, (b) Fmoc-SL-OMe, (c) Fmoc-TF-OMe, and (d) Fmoc-TL-OMe measured at 24 hours.

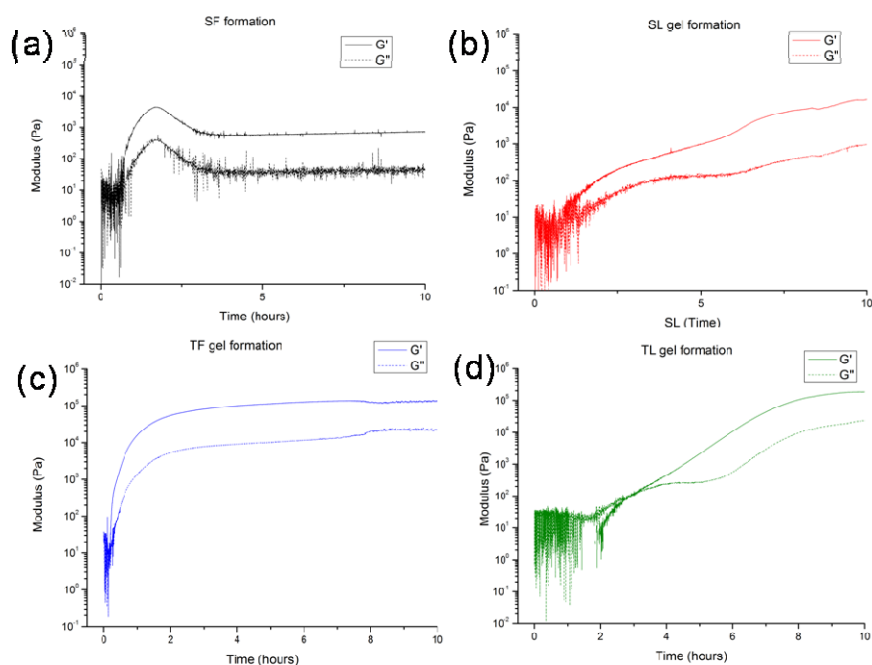


Figure S2 – Rheological studies of gel formation over 10 hours (a) Fmoc-SF-OMe, (b) Fmoc-SL-OMe, (c) Fmoc-TF-OMe, and (d) Fmoc-TL-OMe.

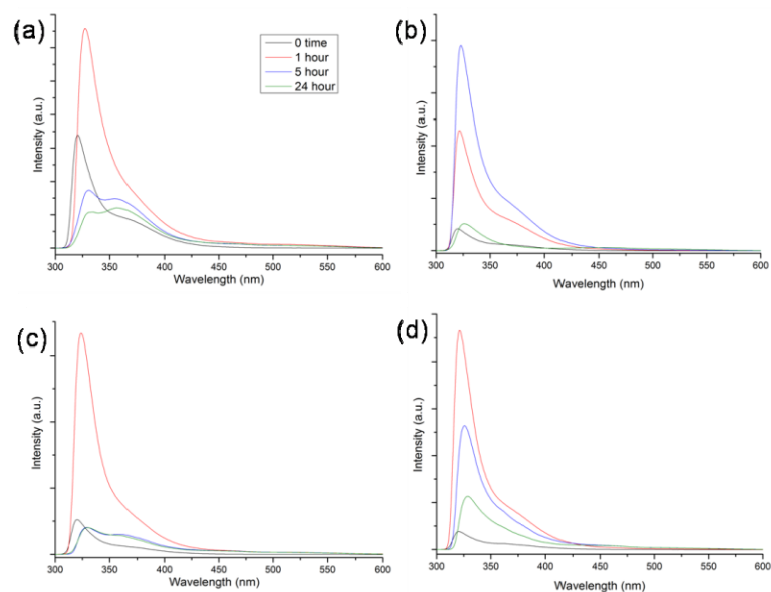


Figure S3 - Fluorescence emission spectra of (a) Fmoc-SF-OMe, (b) Fmoc-SL-OMe, (c) Fmoc-TF-OMe, and (d) Fmoc-TL-OMe measured over 24 hours.

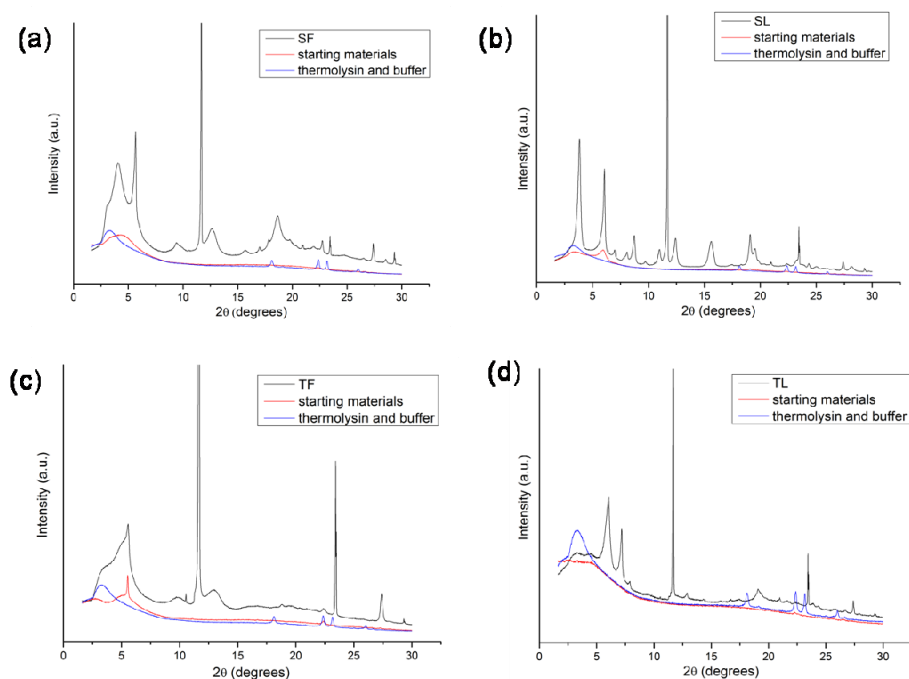


Figure S4 - WAXS data of dried sample measured at 24 hours; (a) Fmoc-SF-OMe, (b) Fmoc-SL-OMe, (c) Fmoc-TF-OMe, and (d) Fmoc-TL-OMe measured against starting materials and thermolysin in buffer.

Pos. [°2Th.]	Height [cts]	FWHMLeft [°2Th.]	d-spacing [Å]	Rel. Int. [%]
2.9516	40704.98	0.1338	29.93337	14.28
4.0153	77344.38	0.1338	22.00582	27.14
5.6782	100660.40	0.0836	15.56468	35.32
9.3978	16395.50	0.1171	9.41094	5.75
11.6772	284972.60	0.0502	7.57854	100.00
12.5520	26941.07	0.1840	7.05225	9.45
12.8960	23437.29	0.2342	6.86491	8.22
15.6571	10688.98	0.3011	5.65995	3.75
17.0231	13467.52	0.1004	5.20874	4.73
17.8384	19211.53	0.1171	4.97247	6.74
18.6021	36822.84	0.1004	4.77000	12.92
19.7872	18920.29	0.1673	4.48692	6.64
20.9618	14919.03	0.0836	4.23806	5.24
21.9654	13705.86	0.2342	4.04665	4.81
22.7412	18276.11	0.1004	3.91032	6.41
23.4291	20976.09	0.0502	3.79705	7.36
24.7291	7252.43	0.4684	3.60031	2.54
26.5426	4779.45	0.1673	3.35830	1.68
27.3877	16185.14	0.0669	3.25655	5.68
28.5176	3898.61	0.1004	3.13005	1.37
29.3102	9251.30	0.0502	3.04719	3.25

Table S1 - Full list of peaks obtained for WAXS of dried sample of Fmoc-SF-OMe.

Pos. [°2Th.]	Height [cts]	FWHMLeft [°2Th.]	d-spacing [Å]	Rel. Int. [%]
3.8387	147873.00	0.2175	23.01785	23.50
6.0695	112936.90	0.0836	14.56213	17.95
6.9828	24066.41	0.0836	12.65935	3.83
8.0777	21618.68	0.1004	10.94568	3.44
8.7294	39814.24	0.1506	10.12999	6.33
9.7315	10685.93	0.1338	9.08897	1.70
11.0012	24199.14	0.1840	8.04268	3.85
11.6807	629118.80	0.0669	7.57626	100.00
12.4443	36218.23	0.2175	7.11302	5.76
15.6200	33563.25	0.2509	5.67331	5.33
15.8000	21936.01	0.1004	5.60908	3.49
17.4970	7672.91	0.1338	5.06870	1.22
18.2972	7742.82	0.1004	4.84880	1.23
19.0891	41539.19	0.1171	4.64938	6.60
19.5363	25470.52	0.1673	4.54396	4.05
19.8595	11900.89	0.1004	4.47074	1.89
20.9404	10678.12	0.1004	4.24235	1.70
22.3355	8481.93	0.1673	3.98043	1.35
23.1991	12149.96	0.1004	3.83418	1.93
23.4307	44550.45	0.0502	3.79680	7.08
23.9341	6931.29	0.1338	3.71807	1.10
24.3351	8750.05	0.1004	3.65770	1.39
24.9976	5335.97	0.2676	3.56224	0.85
26.6355	2691.68	0.2342	3.34679	0.43
27.3930	10700.80	0.1171	3.25594	1.70
28.1837	5228.34	0.1840	3.16637	0.83
29.3070	3771.12	0.0502	3.04751	0.60

Table S2 - Full list of peaks obtained for WAXS of dried sample of Fmoc-SL-OMe.

Pos. [°2Th.]	Height [cts]	FWHMLeft [°2Th.]	d-spacing [Å]	Rel. Int. [%]
2.9789	32718.18	0.7360	29.65976	1.50
4.9451	57572.66	0.4015	17.87034	2.64
5.5819	71516.75	0.1171	15.83285	3.28
9.7867	19526.82	0.5353	9.03784	0.89
10.5365	20127.06	0.1004	8.39633	0.92
11.2942	23432.07	0.0502	7.83464	1.07
11.6775	2182896.00	0.0502	7.57835	100.00
12.9762	24856.95	0.4684	6.82264	1.14
13.2774	22456.57	0.2676	6.66855	1.03
15.9711	12929.50	0.6691	5.54937	0.59
16.7204	13309.84	0.5353	5.30234	0.61
18.7868	14351.29	0.2007	4.72352	0.66
19.5974	13214.35	0.4015	4.52994	0.61
22.4023	11394.02	0.1673	3.96870	0.52
23.4255	114824.50	0.0502	3.79762	5.26
27.3817	21814.94	0.1673	3.25726	1.00
29.3259	2701.92	0.1004	3.04559	0.12

Table S3 - Full list of peaks obtained for WAXS of dried sample of Fmoc-TF-OMe.

Pos. [°2Th.]	Height [cts]	FWHMLeft [°2Th.]	d-spacing [Å]	Rel. Int. [%]
3.0873	22996.24	0.8029	28.61877	7.02
4.4443	22929.05	0.4015	19.88289	7.00
6.0551	43413.56	0.1004	14.59674	13.26
7.1925	32288.15	0.0836	12.29079	9.86
7.8826	12909.39	0.1004	11.21614	3.94
11.6795	327497.00	0.0502	7.57706	100.00
12.8767	8609.78	0.1338	6.87514	2.63
19.0912	10097.22	0.1338	4.64889	3.08
20.9453	6582.37	0.2007	4.24137	2.01
21.5723	5715.76	0.4015	4.11949	1.75
22.4860	5083.78	0.5353	3.95412	1.55
23.4286	22561.72	0.0502	3.79712	6.89
23.8742	4831.27	0.2007	3.72725	1.48
25.7808	2815.95	0.3346	3.45577	0.86
26.6907	2540.18	0.2007	3.34000	0.78
27.3935	5719.07	0.0502	3.25588	1.75

Table S4 - Full list of peaks obtained for WAXS of dried sample of Fmoc-TL-OMe.