

Electronic Supplementary Information

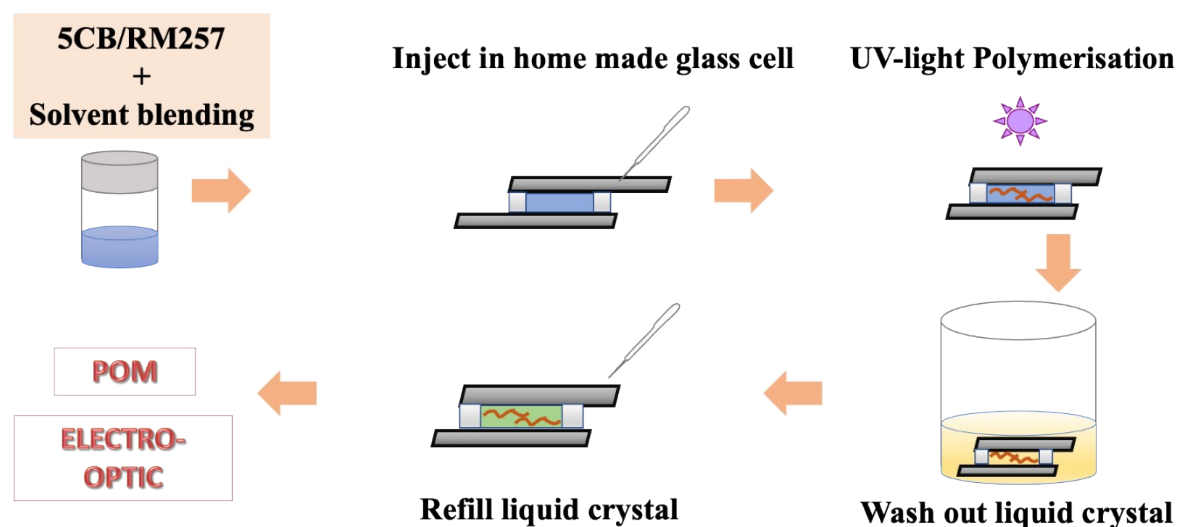


Fig.S1: Schematic illustration of the sample preparation also known as the wash out / refill procedure.

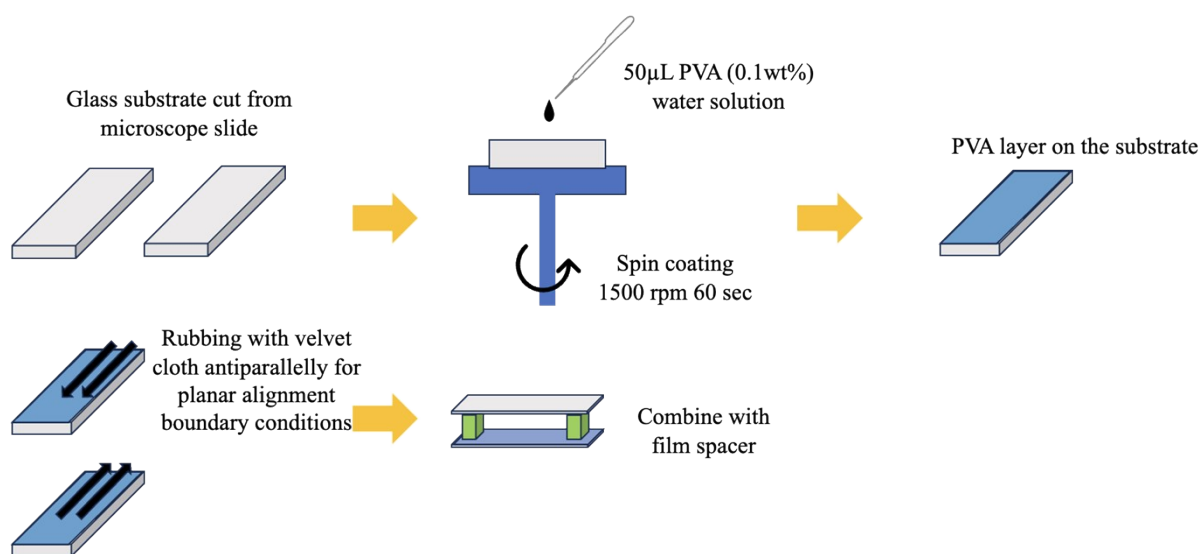


Fig.S2: Schematic illustration of the sandwich cell assembly and boundary conditions preparation steps.

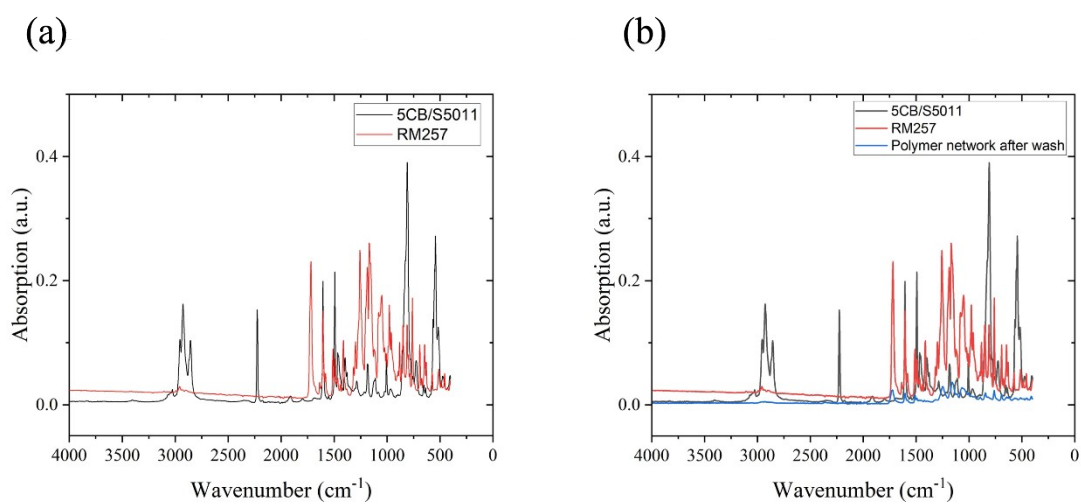


Fig.S3: FTIR spectra of (a) 5CB/S5011 mixture and RM257, (b) 5CB/S5011 mixture, RM257, and the polymer network after washing out the liquid crystal from the PSLC.

Table S1: The concentration of PSLC (5CB/RM257/S5011) and refilled LC (5CB/R5011).

Dopant (wt%)	5CB (mg)	RM257 (mg)	S(R)5011 1% solution (mg)	Actual dopant (%)
0.7	83.33	2.52	66.40	0.77
	78.43	X	53.01	0.67
1.0	65.79	2.01	68.08	0.99
	43.40	X	45.36	1.03
1.2	65.35	2.03	83.42	1.22
	43.86	X	54.62	1.23
1.5	76.32	2.33	116.09	1.45
	47.97	X	75.04	1.47

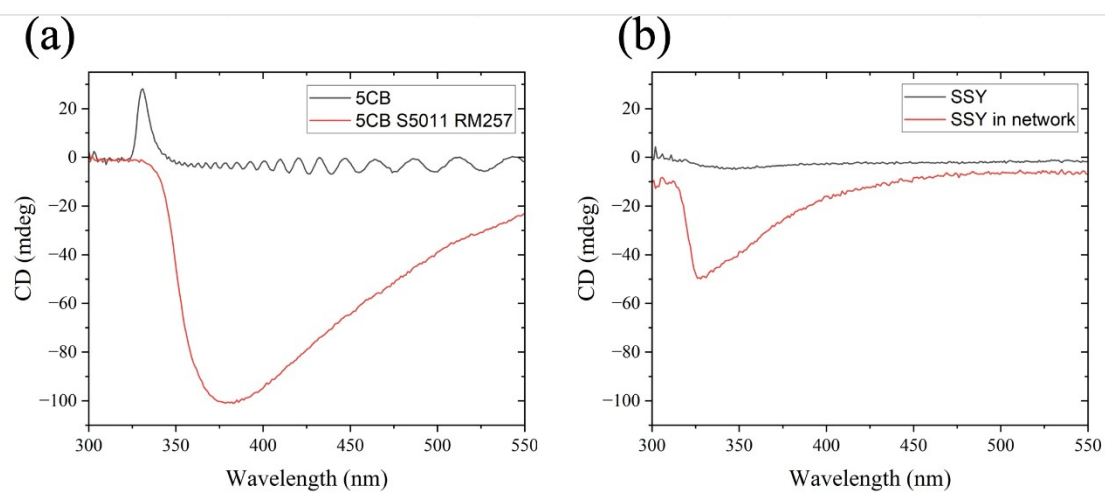


Fig.S4: Circular dichroism (CD) measurements of (a) 5CB and 5CB/S5011/RM257 mixture, (b) SSY/water (25/75) and SSY/water refilled into the polymer network.