

Electronic Supplementary Information (ESI)

Saline-Enabled Self-Healing of Biocompatible Polyelectrolyte Multilayer Films

Xiaoxia Hu, Shun Feng, Shimei Xu, Jide Wang, and Jie Xu*

Table S1. The effect of the outmost layer on the self-healing abilities of assembled multilayer films characterized by the dispersion experiment (n=3)

	Time	Diffusion diameters / mm		P value ^[a]
		Original film	Normal saline healed film	
PDDA(CMC/PU) ₂₀	5 s	2.83±0.13	2.78±0.16	7.32×10 ⁻¹
	30 s	2.88±0.11	2.80±0.06	3.52×10 ⁻¹
	2 min	2.93±0.03	2.85±0.04	2.99×10 ⁻²
	5 min	2.96±0.02	2.85±0.03	3.82×10 ⁻³
PDDA(CMC/PU) _{20.5}	5 s	3.05±0.01	2.81±0.03	1.28×10 ⁻⁴
	30 s	3.09±0.01	2.88±0.02	3.52×10 ⁻⁵
	2 min	3.13±0.02	2.90±0.02	5.72×10 ⁻⁵
	5 min	3.16±0.03	2.94±0.02	3.48×10 ⁻⁴

[a] calculated by independent-sample *t*-Test (two-tailed) algorithm

Fig. S1 The healing properties of water with different pHs on a) PDDA(CMC/PU)₂₀ and b) PDDA(CMC/PU)_{20.5} films.

