

Supporting Information

Optically Amplified DNA Detection on Self-Assembled Solid Films Using Conjugated Polyelectrolytes

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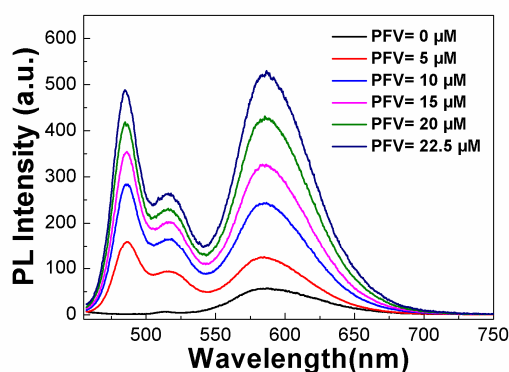


Fig. S1. Emission spectra of dsDNA/EB after gradual addition of PFV in PBS buffer,

$[\text{dsDNA}] = 5 \times 10^{-7} \text{ mol L}^{-1}$, $[\text{EB}] = 2 \times 10^{-5} \text{ mol L}^{-1}$, $[\text{PFV}] = 0 - 2.5 \times 10^{-5} \text{ mol L}^{-1}$ in RUs. The

excitation wavelength was 437 nm.

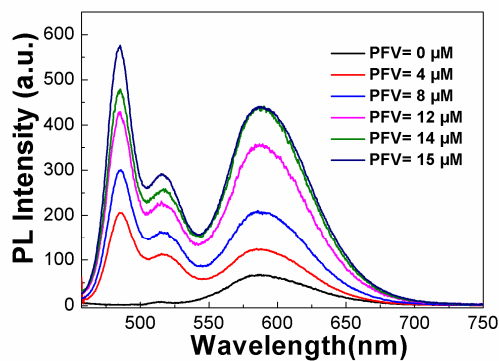


Fig. S2. Emission spectra of ssDNA/EB after gradual addition of PFV in PBS buffer, [ssDNA] = 5×10^{-7} mol L⁻¹, [EB] = 2×10^{-5} mol L⁻¹, [PFV] = 0– 1.5×10^{-5} mol L⁻¹ in RUs,. The excitation wavelength was 437 nm.

Table S1. The thickness of a PEs/PFV/PAH multilayer film with a PAH layer at different pH values. The control is a PEs/PFV film.

Thickness(nm)	reference	pH=3.0	pH=4.2	pH=5.0	pH=7.0	pH=9.0
PEs/PFV/PAH multilayer	7.1±0.81	9.7±0.87	10.6±1.42	12.6±1.57	8.8±0.66	11.1±1.49
PAH layer	0	2.6	3.5	5.5	1.7	4.0