Layer-by-layer assembly of a new L-glutamic acid based polymer with PAH: Formation of hollow sphere during deposition, dye loading and chiroptical switch

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Figure S1 SEM images of (PAH/PAGlu)\textsubscript{4} films in a large area.

Figure S2 SEM images of hollow spheres on (PAH/PAGlu)\textsubscript{4} films. Draw a line with a blade on the film, some structures on the membrane were damaged and hollow structures were seen.
Figure S3 AFM images cross-section analysis of as-deposited (PAH/PAGlu)₄ film (a) and TMPyP-incorporated (PAH/PAGlu)₄ film (b) loaded from 0.1 mM neutral aqueous dye solution. Cross-section analysis of the typical structures revealed a large ratio of diameter to height for all the samples (approximately 6.5, 6.4 respectively), which indicated that they were of flattened shape.

Figure S4 SEM images of (PAH/PAGlu)₄ films on a silicon chip.