Electronic Supplementary Information (ESI)

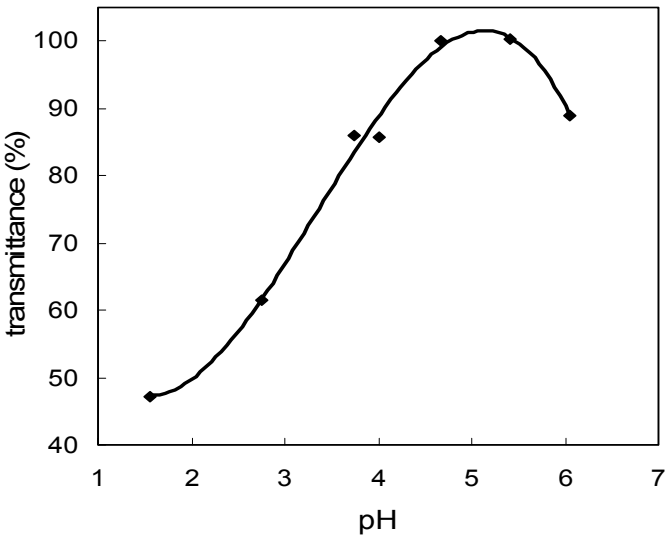

Figure S1. The transmittance of the PAA / silica hybrids at 400 nm depending on the pH in an aqueous solution. (The sample thickness is about 1 μm.)

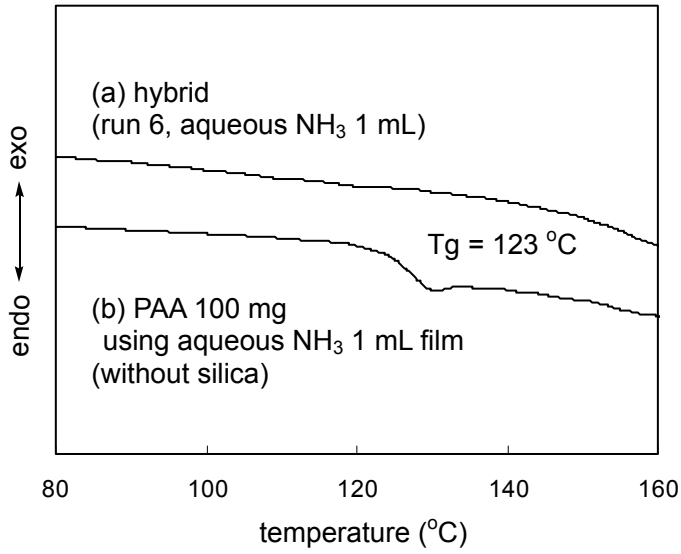

Figure S2. DSC thermograms of (a) the polymer hybrid (Table 1, run 6, PAA / silica = 5 / 1), and (b) PAA film with 1.0 mL of 1M aqueous NH_3 solution.

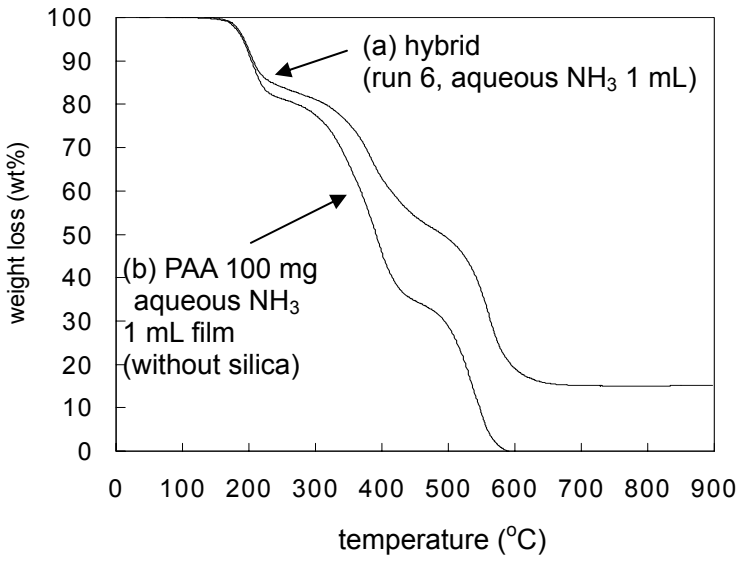

Figure S3. TGA traces of (a) the PAA / silica hybrid (Table 1, run 6) and (b) PAA with 1.0 mL of 1M aqueous NH_3 solution.

Table S1. Effect of Solvents on Homogeneity[a]

run	PAA (mg)	TMOS (mg)	solvent (mL)	10 wt% $NH_{3aq.}$ (mL)	appearance
1	50	500	H_2O 3	0.03	transparent
2	50	500	H_2O 3	-	turbid
3	50	500	MeOH 3	0.03	precipitated
4	50	500	MeOH 3	-	turbid

[a] Stirring time was 1 h, and the solvent was evaporated at 60 °C.

Table S2. Effect of the Base Additive on the Homogeneity[a]

run	PAA (mg)	TMOS (mg)	base additive[b]	appearance
5	50	250	-	phase separated
6	50	250	$NH_{3aq.}$	transparent
7	50	250	diisopropylamine$_{aq.}$	transparent
8	50	250	triethylamine$_{aq.}$	transparent
9	50	250	$NaOH_{aq.}$	transparent

[a] H_2O 3 mL, stirring time was 1 h, and the solvent was evaporated at 60 °C.
[b] 0.03 mL of 10 wt% aq. solution was used as a base additive.