Supporting Information

Uniform $M_3PMo_{12}O_{40}\cdot nH_2O$ ($M=NH^{4+}$, K^+, Cs^+) rhombic dodecahedral nanocrystals for effectively antibacterial agents

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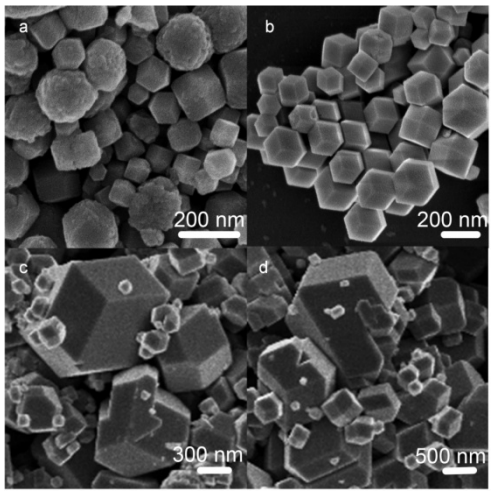

Figure S1 SEM images of different samples (ammonium hydrogen carbonate (0.100 g) and phosphomolybdic acid hydrate (0.700 g) were added into 20.0 mL of H_2O. Then the solution was transferred into 50 mL stainless-steel autoclaves lined with poly(tetrafluoroethylene) (PTFE, Teflon), which was sealed and maintained at different conditions in an oven: (a) NH-1, 100 ^oC, 6 h, (b) NH-3, 100 ^oC, 12 h, (c) NH-2,100 ^oC, 16 h, and (d) 160 ^oC,12 h.

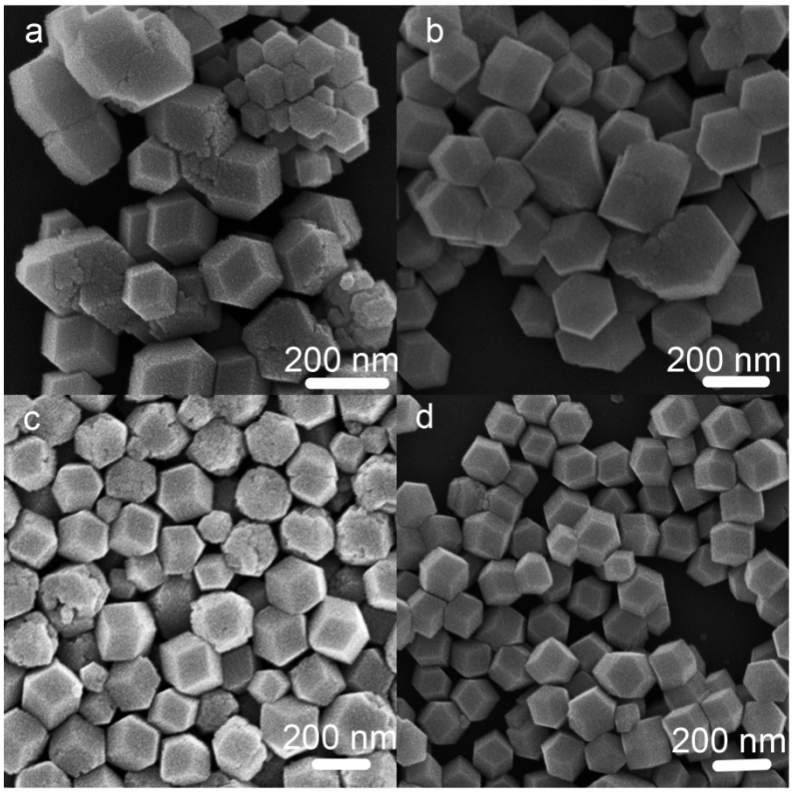

Figure S2 SEM images of samples from the same amount of potassium salts (a) K_2CO_3, (b) K_3PO_4, (c) K_2SO_4, and (d) KCl, and phosphomolybdic acid hydrate (0.500 g) were mixed with 4.0 mL ethylene glycol and 11.0 mL deionized water, and then stirred for 4.0 h

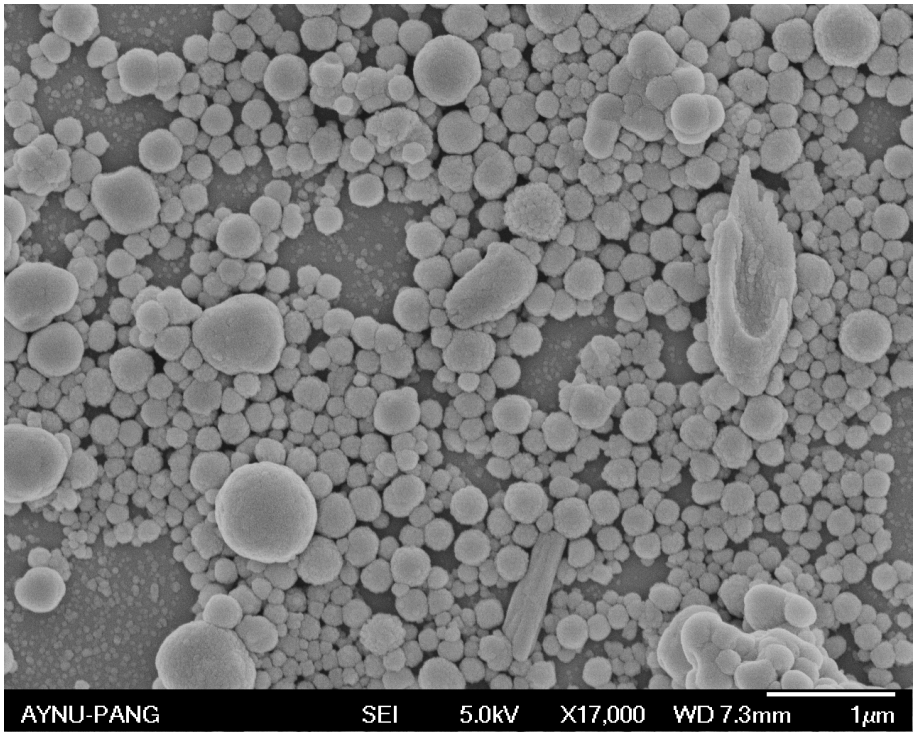

Figure S3. SEM image of the product obtained from potassium chloride (0.100 g) and phosphomolybdic acid hydrate (0.500 g) were mixed 11.0 mL deionized water, and then stirred for 4.0 h.

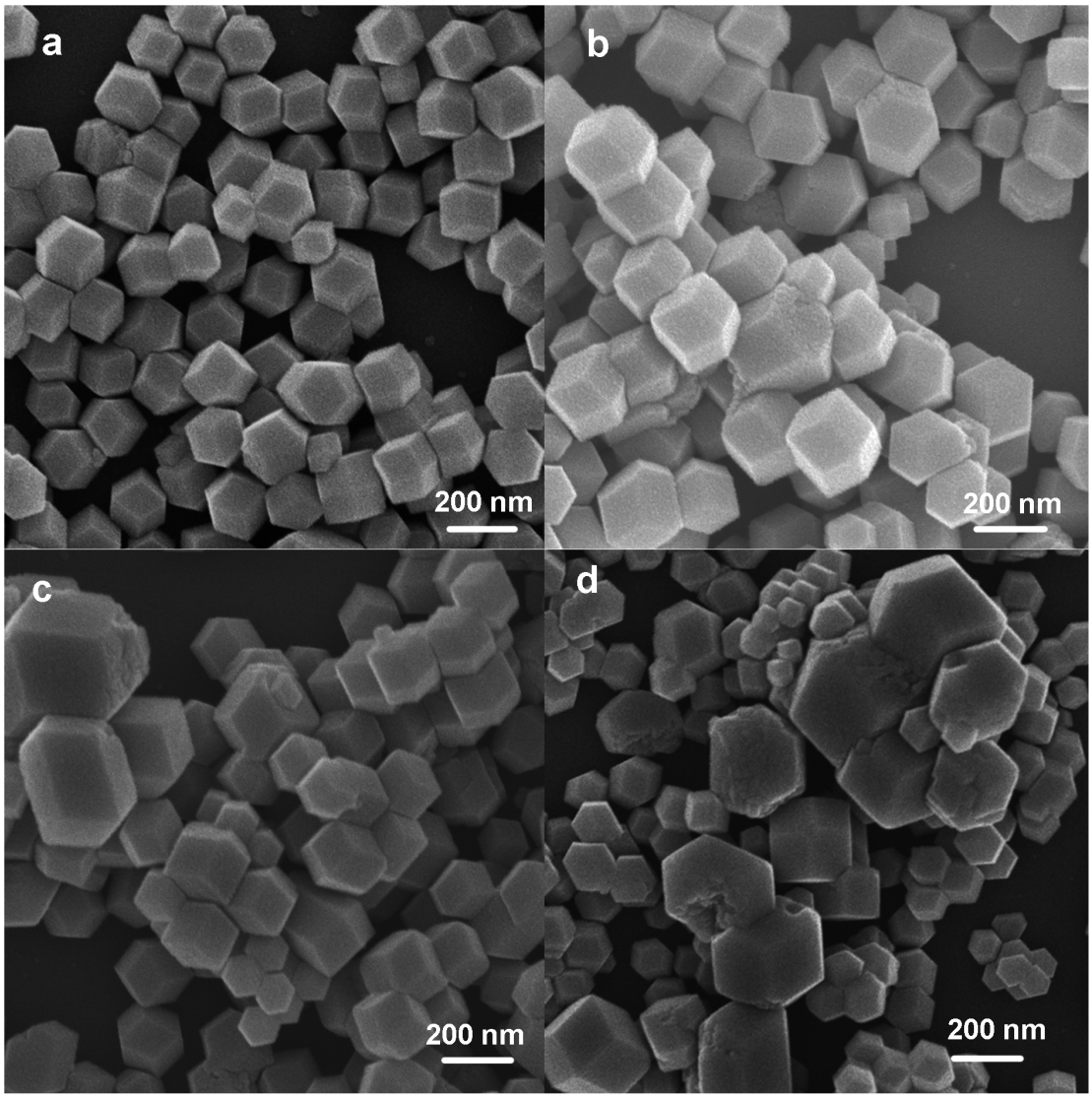

Figure S4. SEM images of samples from the same amount of KCl, different amounts of 0.01 M KOH solution, a) 0 mL; b) 1.0 mL; c) 2.0 mL; d) 3.0 mL, and phosphomolybdic acid hydrate (0.500 g) were mixed with 4.0 mL ethylene glycol and 11.0 mL deionized water, and then stirred for 4.0 h.

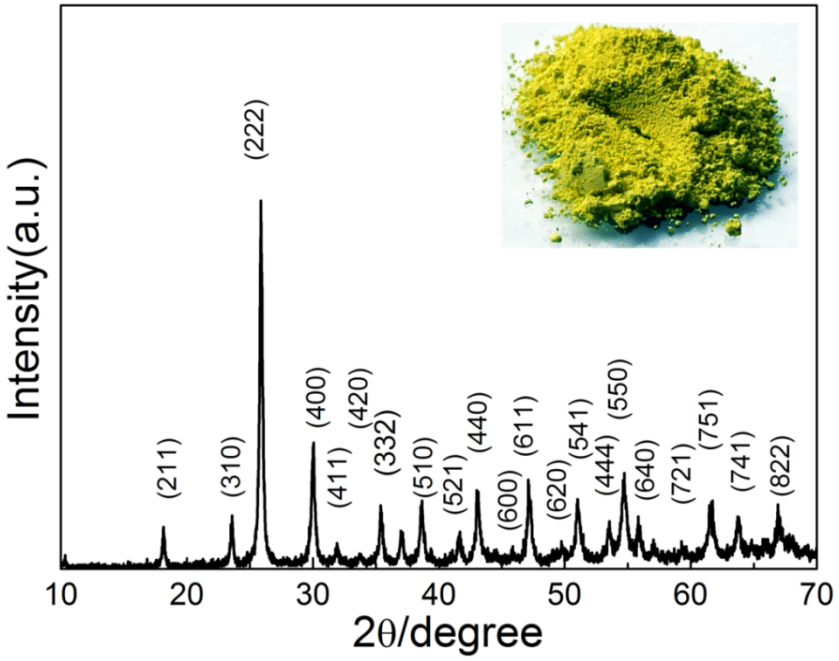

Figure S5. XRD patterns of samples (Cs-3) obtained from (cesium carbonate (0.100 g) and phosphomolybdic acid hydrate (0.500 g) were added into 15.0 mL of H_2O, and then were maintained at 100.0 ^oC for 12.0 h in an oven.), in inset of it the optical photo of samples.

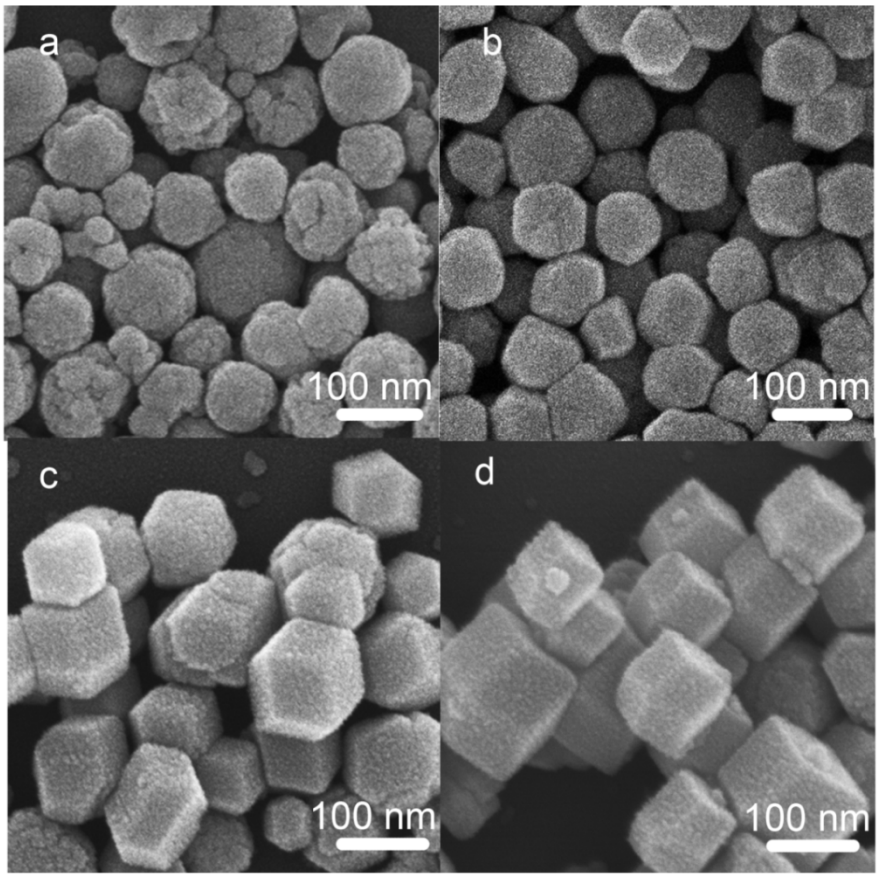

Figure S6 SEM images of different samples (cesium carbonate (0.100 g) and phosphomolybdic acid hydrate (0.500 g) were added into 15.0 mL of H_2O. Then the solution was transferred into 50.0 mL stainless-steel autoclaves lined with poly(tetrafluoroethylene) (PTFE, Teflon), which was sealed and maintained at 100.0 ^{o}C for different times in an oven: (a) 4 h, (b) Cs-1, 6 h, (c) Cs-2, 8 h, and (d) Cs-3, 12 h.

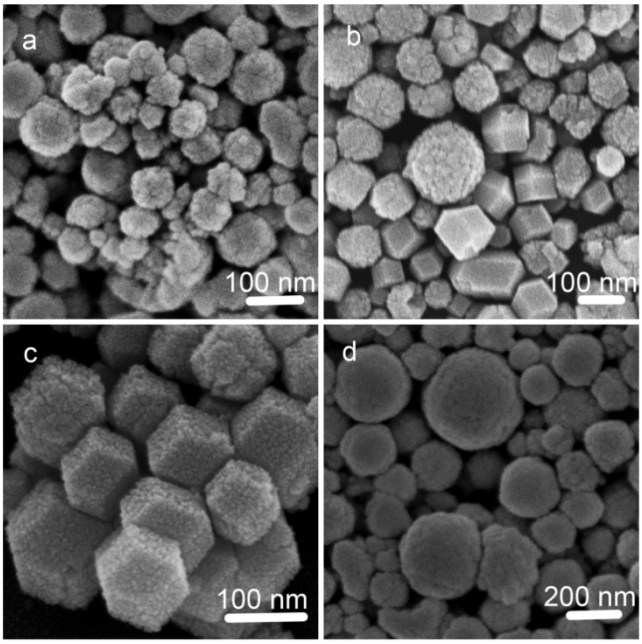

Figure S7 SEM images of different samples (cesium carbonate (0.100 g) and phosphomolybdic acid hydrate (0.500 g) were added into 15.0 mL of H_2O. Then the solution was transferred into 50.0 mL stainless-steel autoclaves lined with poly(tetrafluoroethylene) (PTFE, Teflon), which was sealed and maintained at different temperatures for 12 h in an oven: (a) room temperature, (b) 60 ^{o}C, (c) 100 ^{o}C, and (d) 120 ^{o}C.

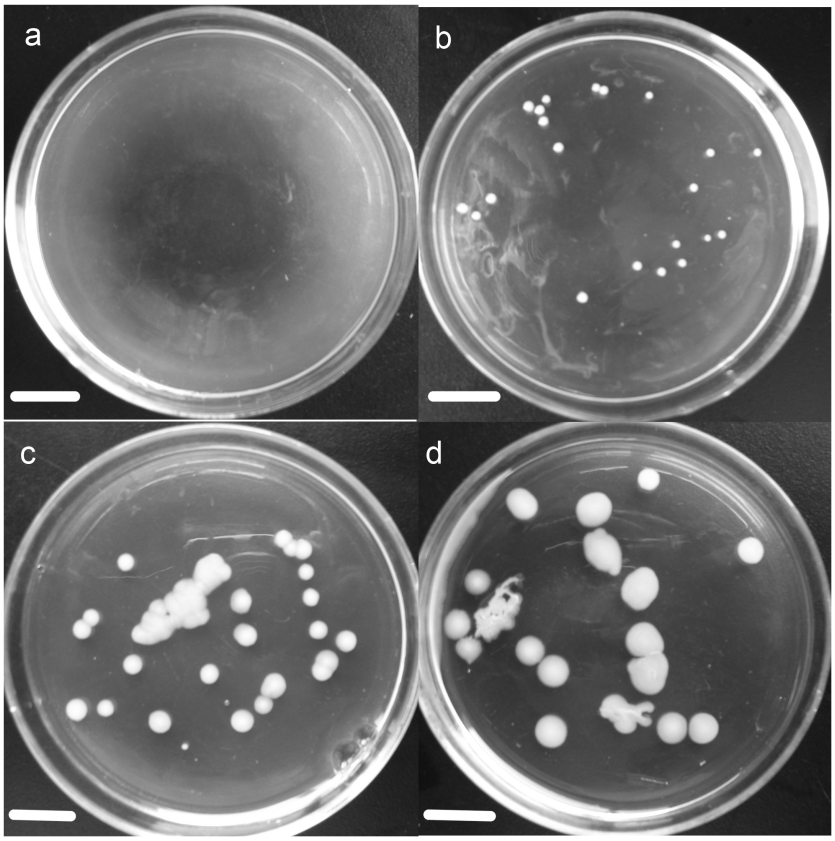

Figure S8 Photographs of E. coli grown on LB agar coated with different bulk commercial materials, (a) Control, (b) $(NH_4)_3[PMo_{12}O_{40}]\cdot nH_2O$, (c) $K_3[PMo_{12}O_{40}]\cdot nH_2O$, and (d) $Cs_3[PMo_{12}O_{40}]\cdot nH_2O$, the scale is 0.5 cm.

Sample	BET/ m^2/g	Sample	BET/ m^2/g	Sample	BET/ m^2/g
NH-1	55.5	K-1	22.5	Cs-1	32.5
NH-2	40.4	K-2	17.4	Cs-2	25.6
NH-3	48.4	K-3	21.8	Cs-3	20.8
Commercial NH	38.6	Commercial K	13.6	Commercial Cs	17.6

Table S1 BET of as-prepared different samples.