

Figure S1. Kinetic formation study of AuAPO hybrid system at different incubation times and reaction media.

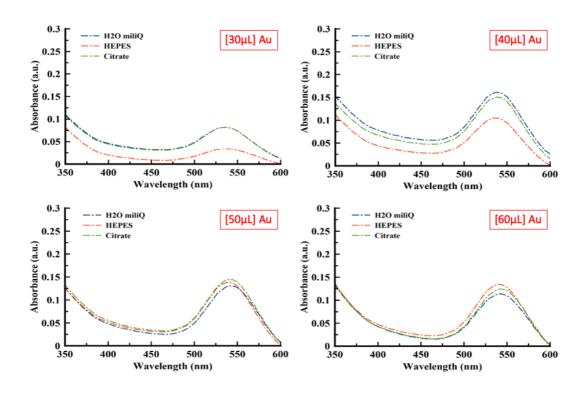


Figure S2. Kinetic formation study of AuAPO hybrid system at different Au³⁺ concentrations and reaction media.

Peak	Туре	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
C 1s	Reg	283.000	2.904	1067053.2	0.278	12.011	67.58	61.55
0 1s	Reg	530.000	3.265	854077.3	0.780	15.999	19.64	23.83
N 1s	Reg	403.000	4.362	334131.1	0.477	14.007	12.70	13.49
Au 4f	Reg	86.000	6.446	28422.5	6.250	196.967	0.08	1.13

Table S1. XPS atomic composition and atomic ratios for the AuAPOC5 sample.

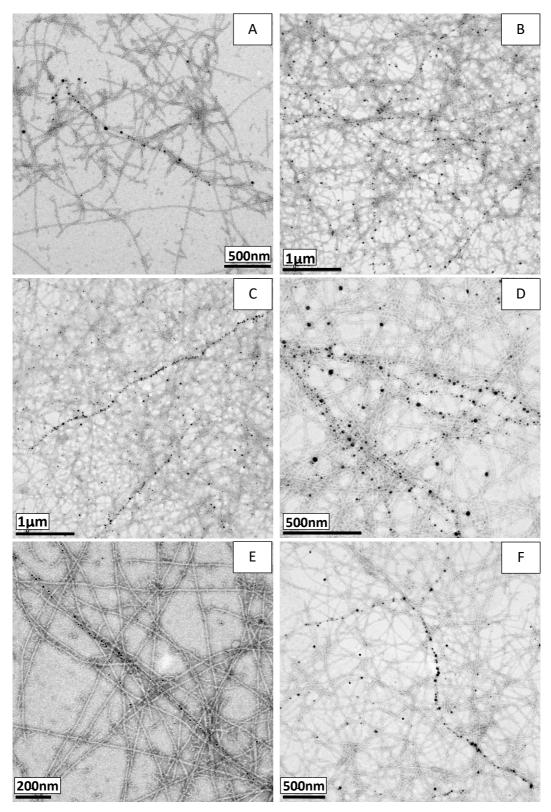


Figure S3. TEM images of AuAPO hybrid system. Panel A corresponds to AuAPOA3, B to AuAPOA5, C to AuAPB5, D to AuAPOB6, E to AuAPOC3, and F to AuAPOC6.

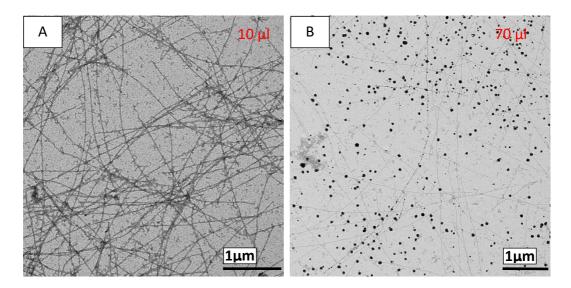


Figure S4. TEM study of AuAPO hybrid system. Influence of Au³⁺ added volume: Panel A corresponds to Au³⁺ added volumes of 10 μ l and Panel B to Au³⁺ added volumes of 70 μ l in milliQ-water.