Supporting information

Table 1S. Calculations of volume, mass of NPs, number of concentration, molarity and total surface atoms of the prepared Ag/AgCl NPs in different shapes.

	AgCl NS	AgCl NC	AgCl NW
Volume of NPs	$V= 4/3(\pi r^3)$ $= 4/3(\pi(95)^3)$ $= 3.59 \times 10^6$ nm^3	$V=d^3$ $= (145)^3$ $= 3.048 \times 10^6$ nm^3	$V= \pi r^2 l$ $= \pi(40)^2 720$ $= 3.619 \times 10^6$ nm^3
Mass of NPs: $m=V\rho$ ρ: density of AgCl NPs $= 1.038$g/cm^3	3.726×10^{-15}g	3.163824×10^{-15}g	3.756×10^{-15}g
Number concentration of NPs: $N = M_C / m$ M_C (mass concentration of AgCl) $= 25\mu$g/mL, m is the mass of NPs	6.7×10^9 particles/mL	7.9×10^9 particles/mL	6.65×10^9 particles/mL
The nanoparticles molarity: $M = N / 6.02 \times 10^{23}$	1.113×10^{-11}M	1.312×10^{-11} M	1.105×10^{-11} M
Total surface atoms $=$ Volume/4(lattice constant)^3	13.21×10^6	11.22×10^6	13.32×10^6

Table2S. The FWHM of the emission lines for the three employed samples (Al, Zn and Si)

Shape	Al		Zn		Si	
	308.24 (I) nm	309.29 (I) nm	472.20 (I) nm	481.07 (I) nm	288.16 (I) nm	390.54 (I) nm
Without NPs	0.21	0.27	0.1207	0.1207	0.1086	0.1176
Nanospheres	0.1186	0.1304	0.1659	0.1509	0.1086	0.1086
Nanocubes	0.1324	0.1422	0.1809	0.166	0.1121	0.1087
Nanowires	0.1421	0.1541	0.181	0.1659	0.1086	0.1087