

## Supporting Information for

### Room-Temperature Sintering of Tri-*n*-Octylphosphine-Oxide-Capped Silver Nanoparticle Paste by Dipping into an Organic Solvent Containing a Sintering Agent

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## Supporting Information

TEM image and particle size distribution of oleic-acid-capped Ag NPs (Figure S1).

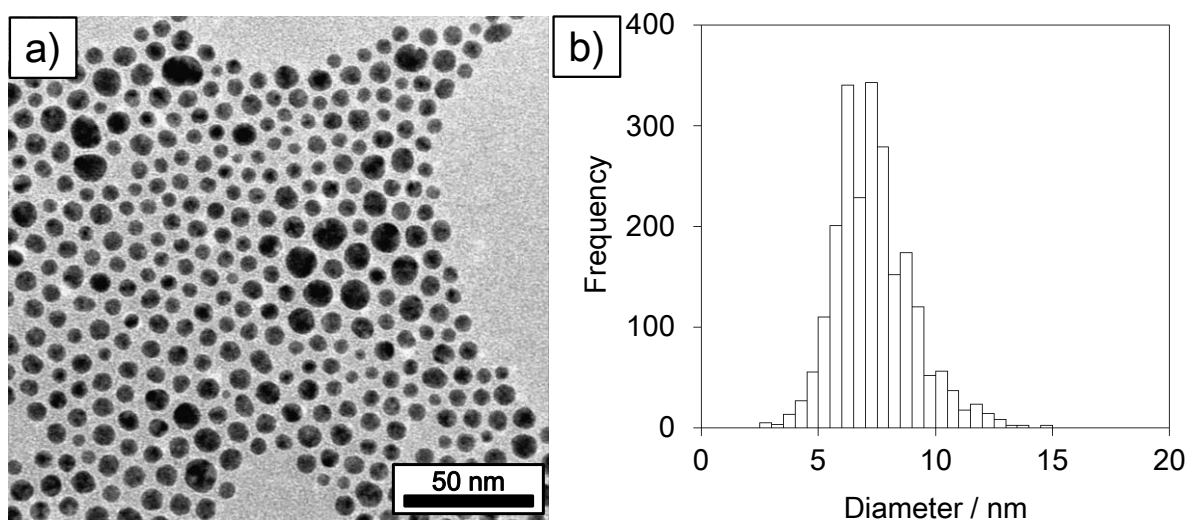
EDS spectra of the Ag thin films prepared from the TOPO-capped Ag NP paste (Figure S2, S3)

SEM image of the Ag thin film prepared from the TOPO-capped Ag NP paste (Figure S4)

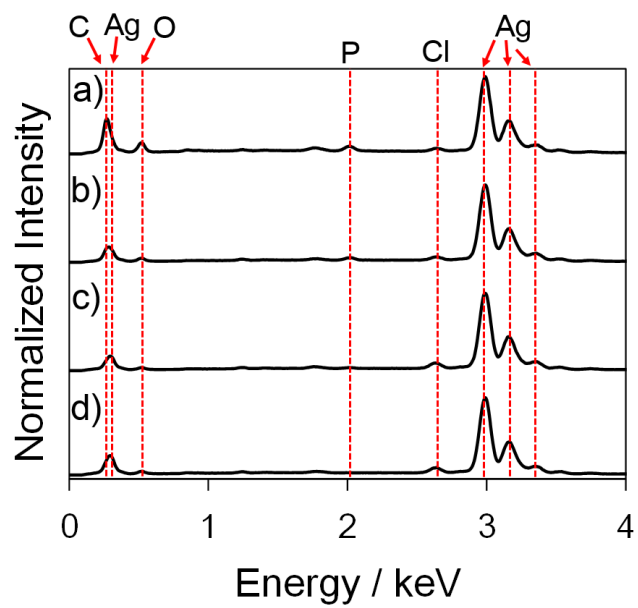
SEM image of the Ag thin film prepared from the oleic-acid-capped Ag NP paste (Figure S5, S7)

TGA curve of the Ag thin film prepared from the TOPO-capped Ag NP paste (Figure S6)

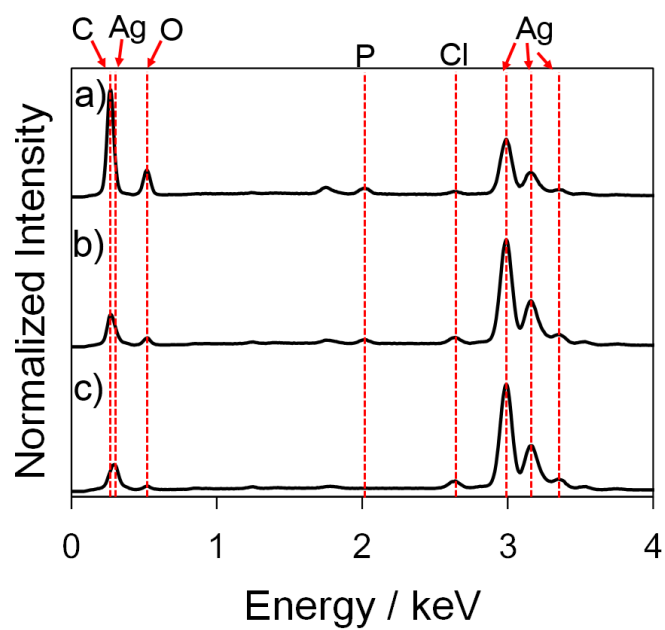
EDS spectrum of the Ag thin film prepared from the oleic-acid-capped Ag NP paste (Figure S8)



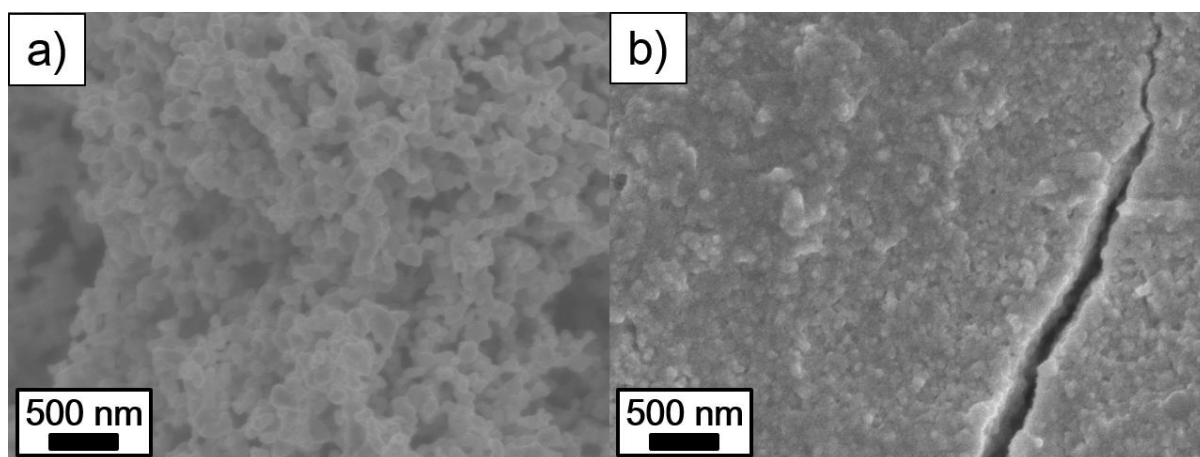
**Figure S1.** (a) TEM image and (b) particle size distribution of oleic-acid-capped Ag NPs.



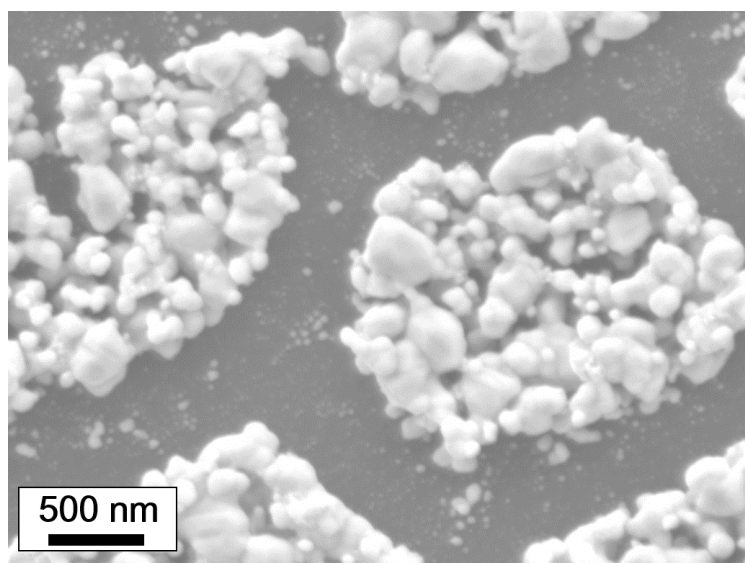
**Figure S2.** EDS spectra of the Ag thin films prepared from the TOPO-capped Ag NP paste by dipping into methanol (a) without and with (b) 0.040 mM, (c) 0.20 mM, (d) 1.0 mM CTAC.



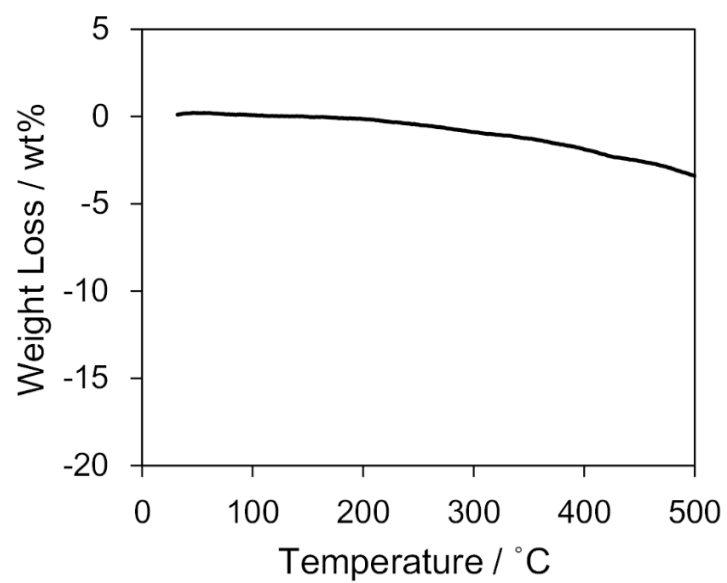
**Figure S3.** EDS spectra of the Ag thin films prepared from the TOPO-capped Ag NP paste by dipping into 1.0 mM CTAC methanol solution for (a) 1 min, (b) 2 min, and (c) 120 min.



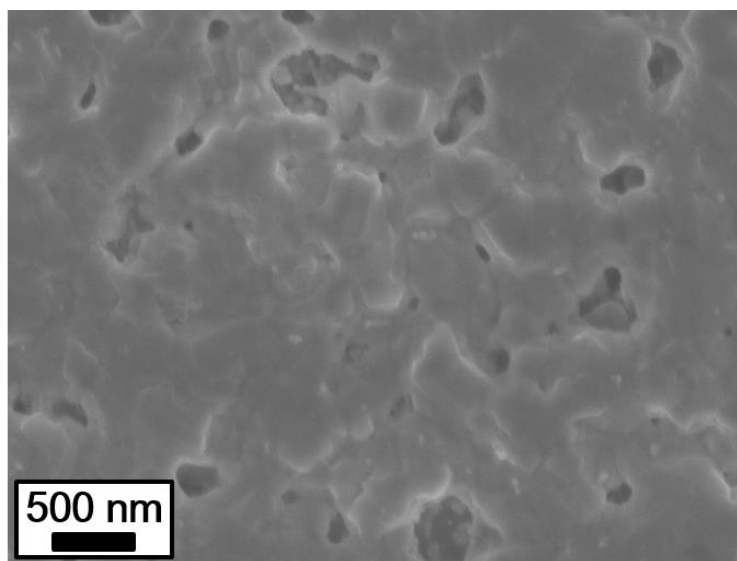
**Figure S4.** SEM images of the Ag thin films prepared from the TOPO-capped Ag NP paste by dipping into 1.0 mM CTAC (a) ethanol and (b) 1-propanol solution for 120 min



**Figure S5.** SEM image of the Ag thin film prepared from the oleic-acid-capped Ag NP paste by dipping into 1.0 mM CTAC methanol solution for 120 min.

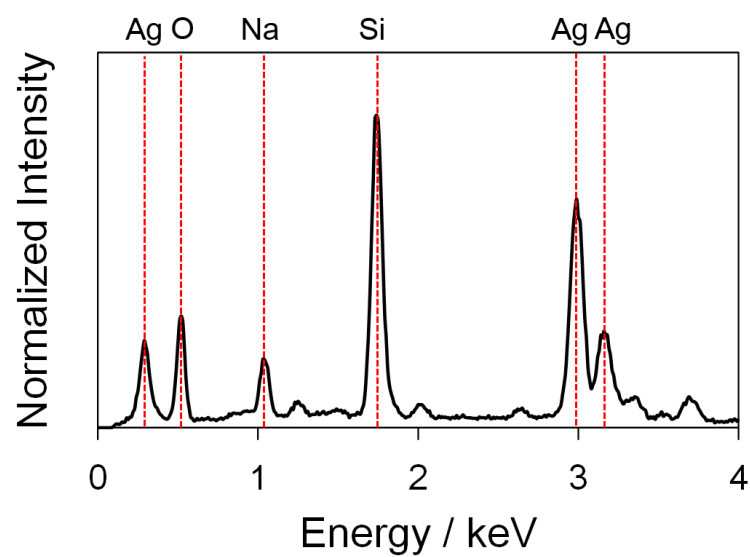


**Figure S6.** TGA curve of the Ag thin film prepared from the TOPO-capped Ag NP paste by dipping into 1.0 mM CTAC methanol solution for 120 min.



**Figure S7.** SEM image of the Ag thin film prepared from the oleic-acid-capped Ag NP paste by the thermal sintering (350 °C, 120 min).





**Figure S8.** EDS spectrum of the Ag thin film prepared from the oleic-acid-capped Ag NP paste by the thermal sintering (350 °C, 120 min).