

Supporting Information

Charged Microdroplets Enable Surfactant-Free Janus Nanoparticles from Homogeneous Precursors

Saloni Gupta,^[a] Radhika Bharathi S,^[a] Anirban Som,^[a] Keerthana Unni,^[a] Sujan Manna,^[a]
Prakrati Patidar,^[a] Depanjan Sarkar,^{*[a][b]} and Thalappil Pradeep^{*[a][b][c]}

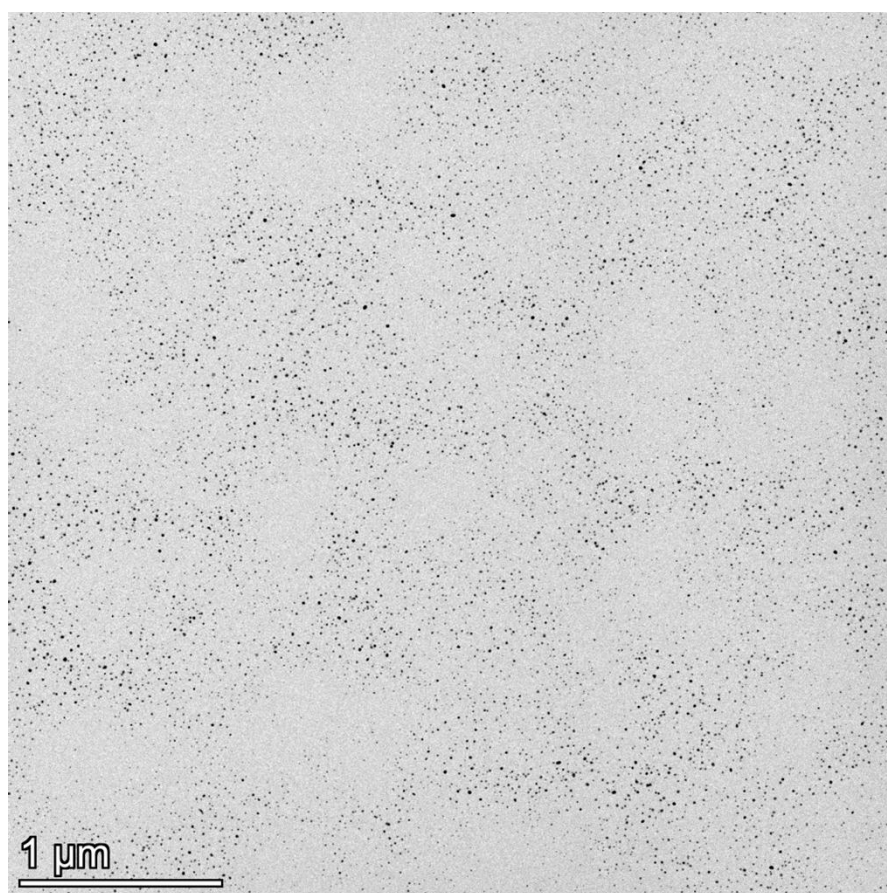


Figure S1. Large area TEM image of Ag NPs synthesized at a tip to substrate distance of 1.5 cm.

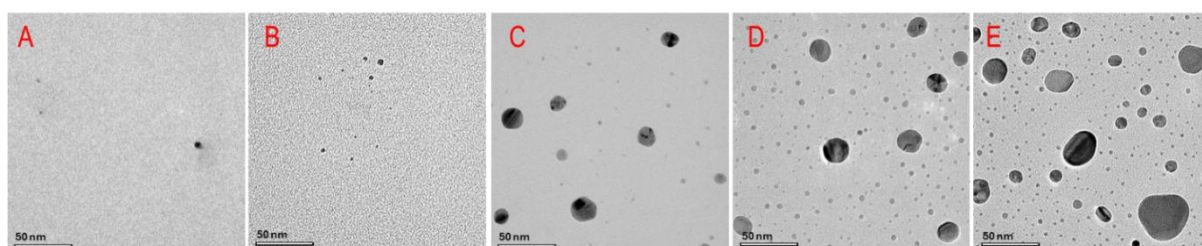


Figure S2. TEM images showing AgNPs synthesized via microdroplets at precursor salt concentrations of (A) 0.01 mM, (B) 0.1 mM, (C) 1 mM, (D) 5 mM, and (E) 10 mM.

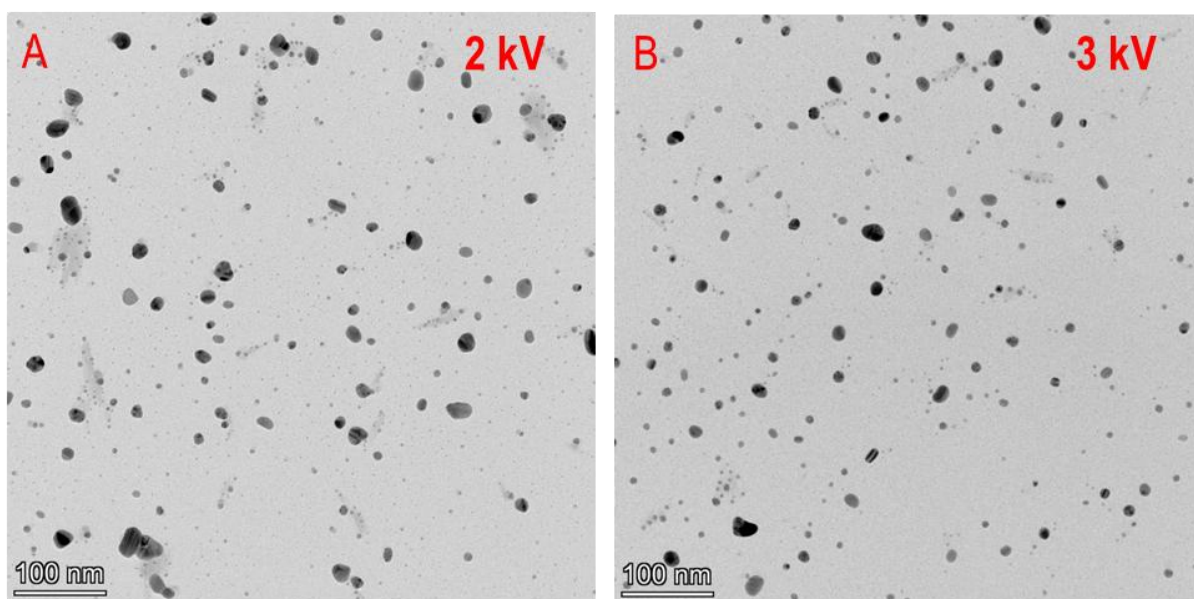


Figure S3. TEM images showing AgNPs synthesized via microdroplets at different applied potentials.

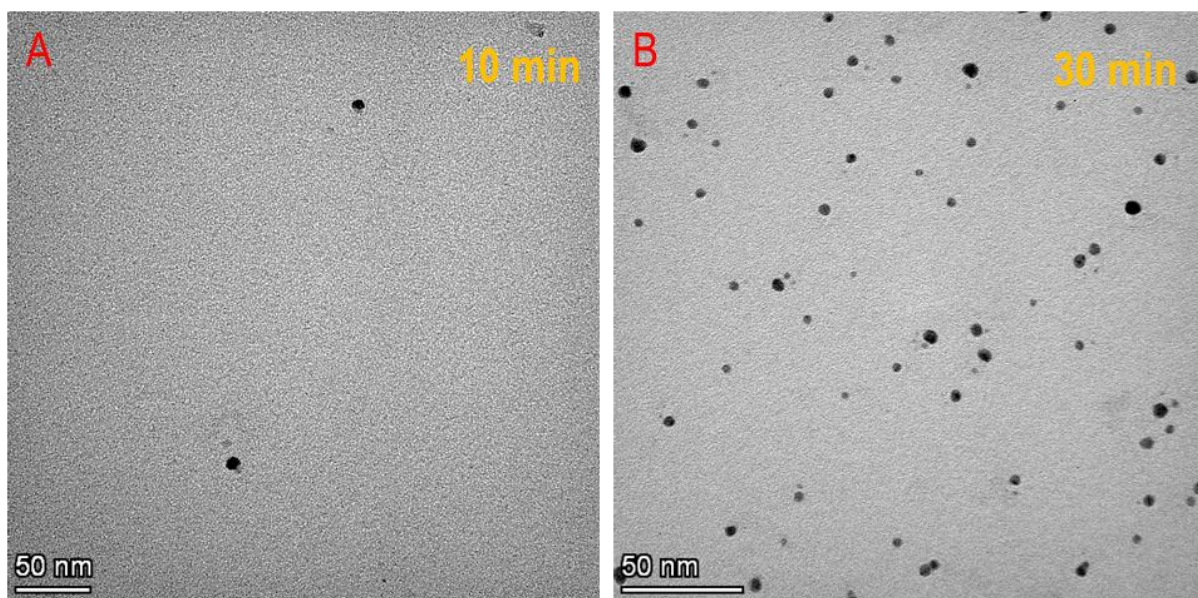


Figure S4. TEM images showing AgNPs synthesized via microdroplets at different deposition times.

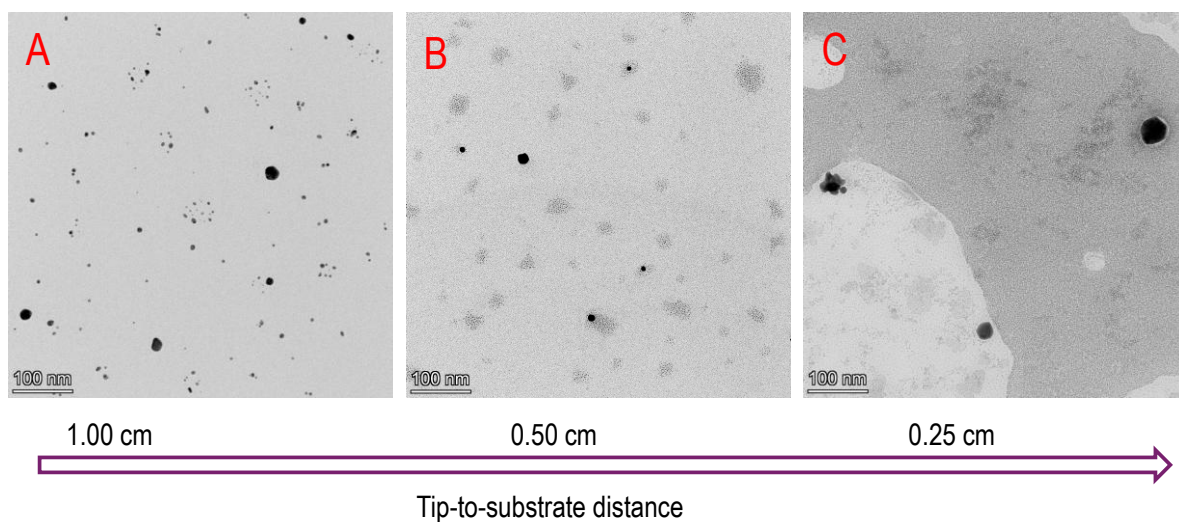


Figure S5. TEM images of Au NPs synthesized using charged microdroplets at various tip-to-substrate distances: A) 1 cm, B) 0.5 cm, and C) 0.25 cm.

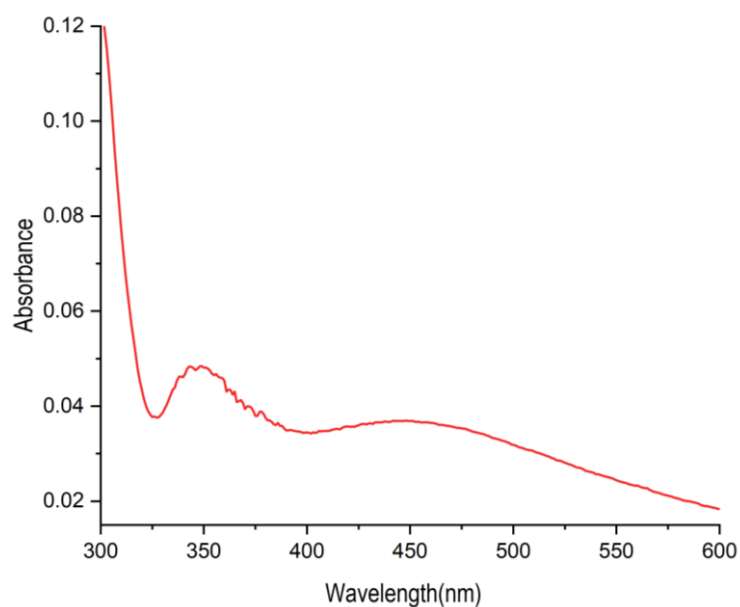


Figure S6. UV-Vis spectrum of the as-synthesized Ag NPs, obtained using the ambient charged microdroplets.

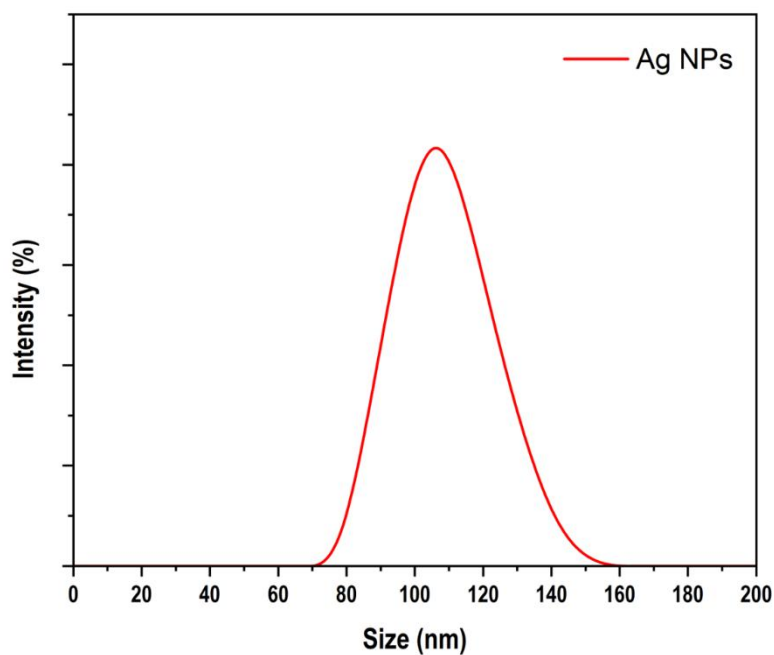


Figure S7. DLS spectrum of Ag NPs synthesized using charged microdroplets. Deposition was performed on grounded water for the measurement.

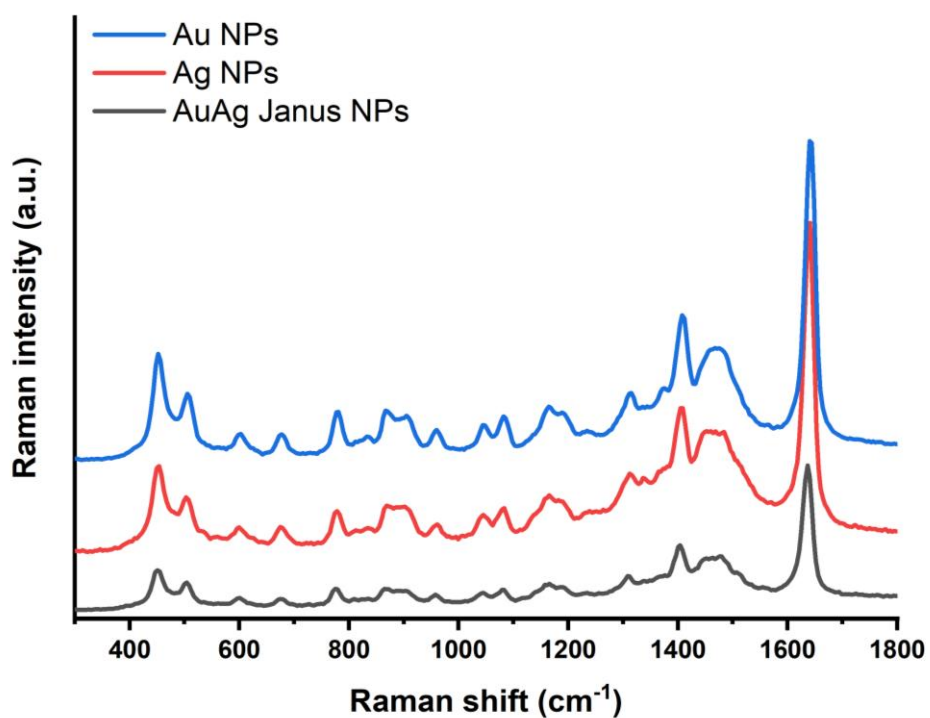


Figure S8. Raman spectra of methylene blue collected on Au, Ag, and Ag-Au Janus NPs substrates created using microdroplet-based synthesis.