## Supporting Information

## Anomalous Hydrodynamic Size Distributions of Alkylamine/Alkylacid-Encapsulated Silver Nanocolloids: Implications for Printing Ultrafine Conductive Patterns

Taichi Hayashi,\* Yuya Hirakawa, Satoru Inoue, Shunto Arai, and Tatsuo Hasegawa\*

Department of Applied Physics, The University of Tokyo, Tokyo 113-8656, Japan

E-mail: hayashi@hsgw.t.u-tokyo.ac.jp (T. Hay.), t-hasegawa@ap.t.u-tokyo.ac.jp (T. Has.)



Figure S1. Control of methanol concentrations in *amac*-AgNCs by evaporation. Relationship between the total volume of evaporated solvents and the final methanol concentration in *amac*-AgNCs.



Figure S2. Typical NMR spectra of *amac*-AgNCs. The upper curve (red) and lower curve (blue) shows the NMR spectra of *amac*-AgNCs including 13.2 vol % methanol and after the methanol is evaporated, respectively. The peaks around 1.26, 3.49, and 3.65 ppm correspond to octane, methanol, and butanol, respectively. No other spectra were found except for the reference material.



Figure S3. Schematic diagram of the confocal DLS optical system. PH1 is a pinhole with a diameter of 25  $\mu$ m, PH2 is a pinhole with a diameter of 50  $\mu$ m, BS is beam splitter, *f* is focal length of the lens.



Figure S4. DLS measurements for polymer beads. (a) ICFs of polymer beads of known particle sizes; 21.5 nm (black), 52 nm (red), 100 nm (green), 260 nm (blue), 495 nm (yellow). (b) HSDs calculated from the ICFs in (a). (c) Relationship between actual and measured size.