

Supporting Information

Spherical LDH–Ag^o-montmorillonite heterocoagulated system with pH-dependent sol-gel structure for controlled accessibility of AgNPs immobilized on the clay lamellae

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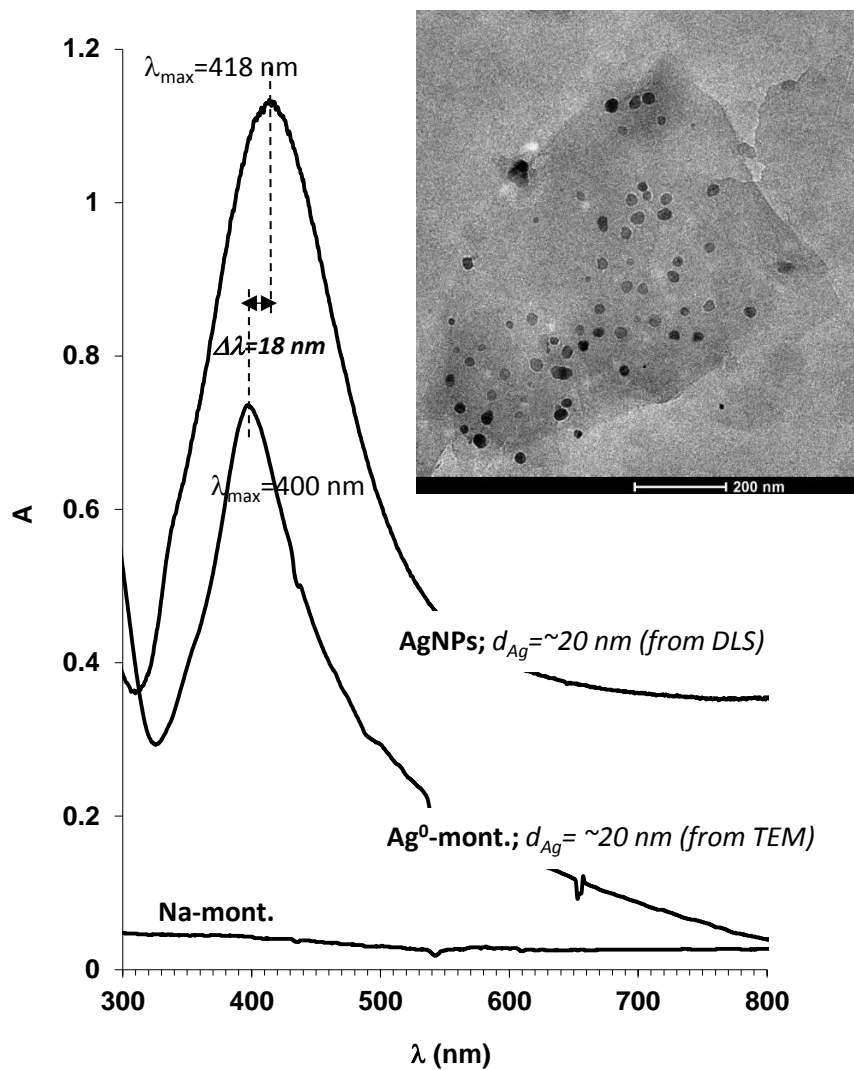


Figure S1. UV-Vis spectra of 3 wt% initial Na-mont. and Ag⁰-mont. dispersions and pure 30 ppm AgNPs sol for reference. The inserted TEM picture shows a single montmorillonite lamella containing ~20 nm surface AgNPs.

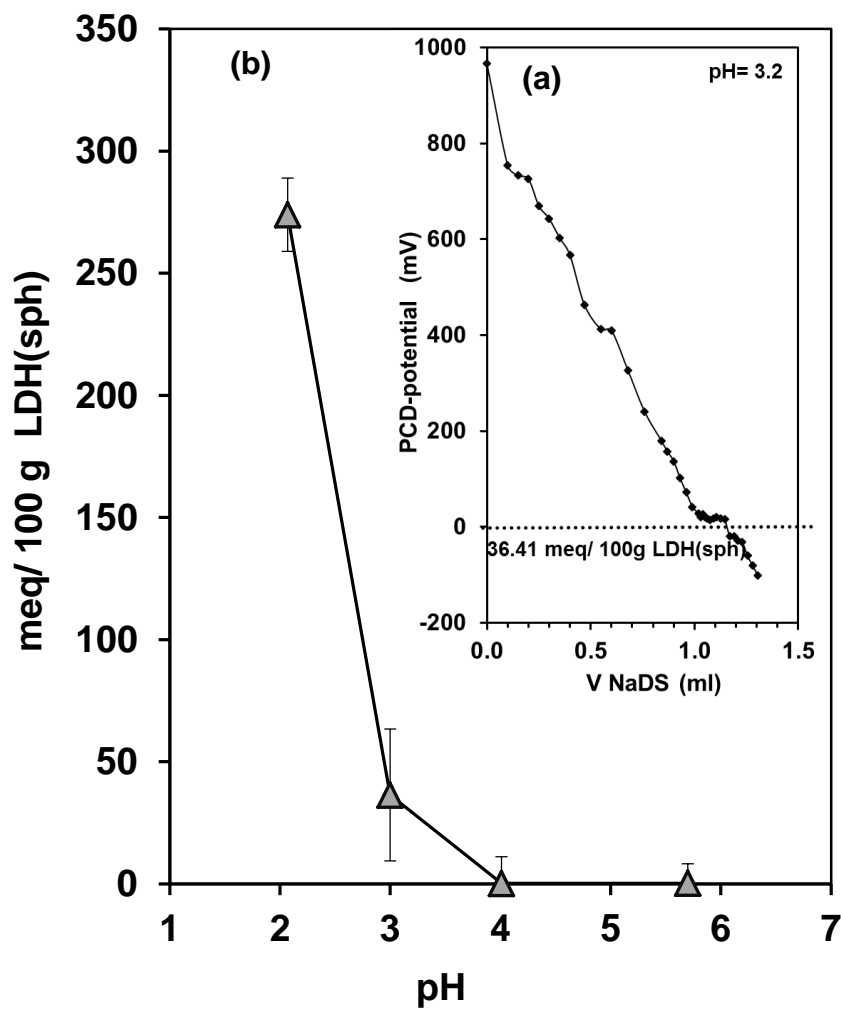


Figure S2. A typical charge titration curve representing the streaming potential values of LDH(sph) as a function of added SDS surfactant at pH= 3.2 (a), and the determined specific surface charges of the LDH(sph) sample at different pH values (b).

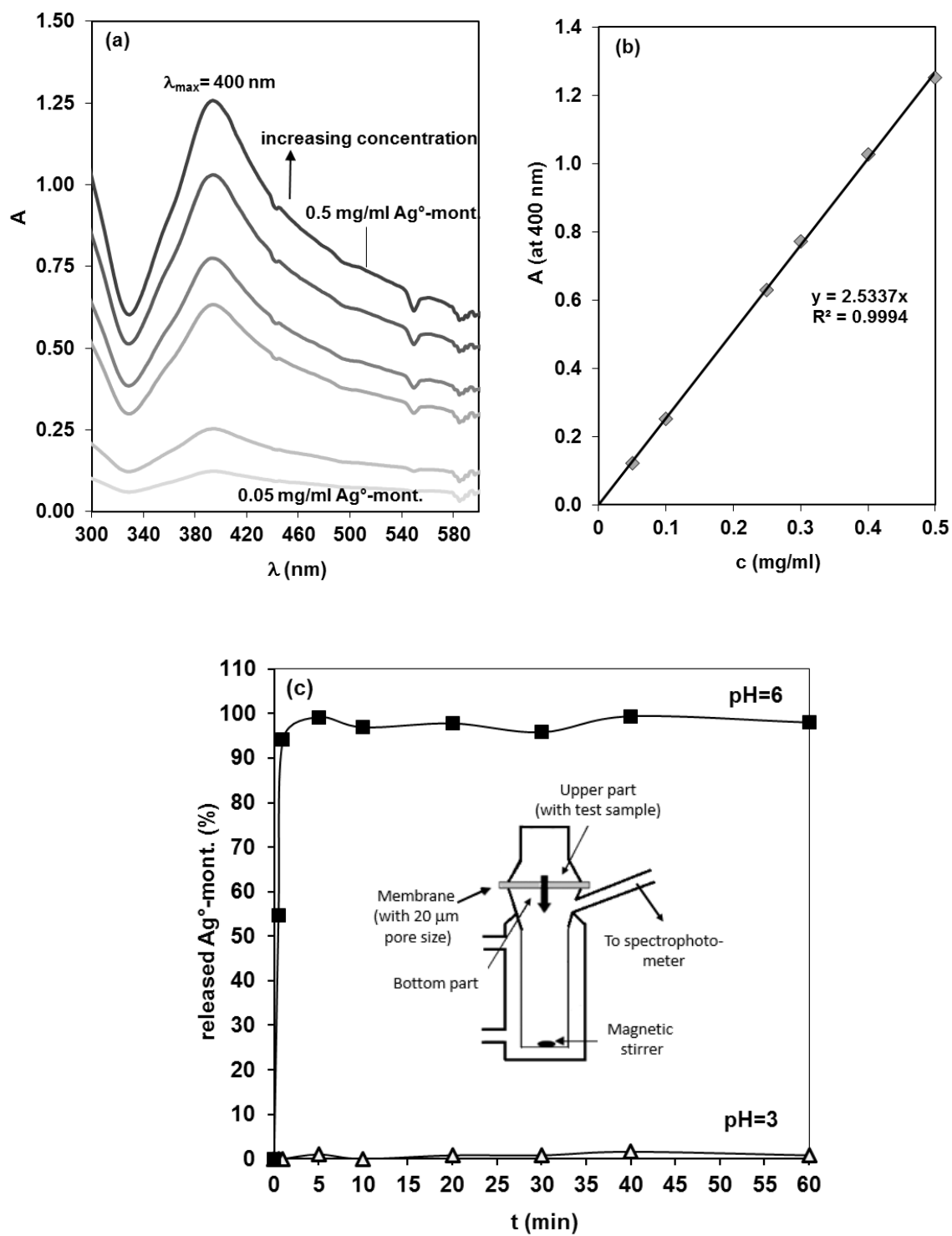


Figure S3. Absorbance spectra at various concentrations of Ag° -mont. suspensions (a) and the calibration line from the spectra (b). The released Ag° -mont. amount in percentage vs time at $\text{pH} = 3$ and 6 (c). The inserted picture shows the schematic drawing of a Hanson vertical diffusion cell.

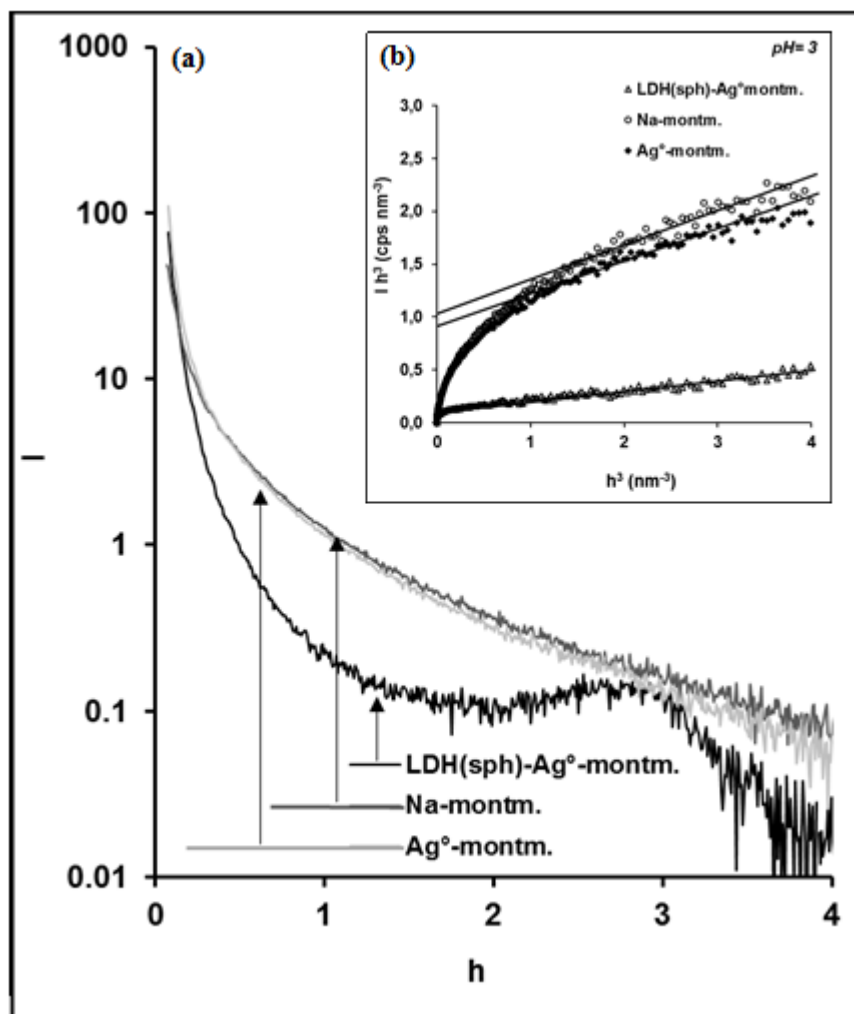


Figure S4. SAXS curves of the LDH(sph)-Ag°-montm. (= 25/75%), pure Na-montm. and pure Ag°-montm. samples at pH= 3.0 (a) and in Ih^3 vs. h^3 representation (Porod plot) (b).