SUPPORTING INFORMATION

Programmed Assembly of Oppositely Charged Homogeneously Decorated and Janus Particles

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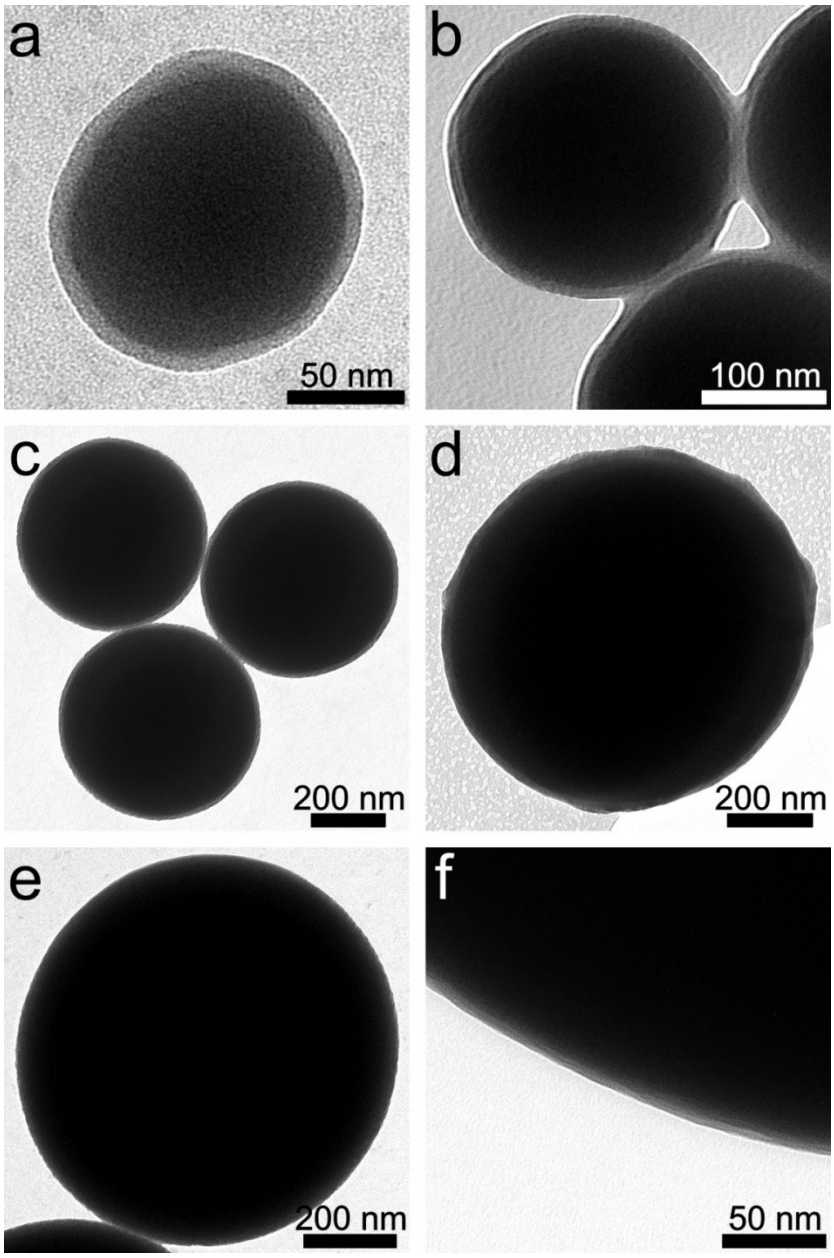

Figure S1. TEM images revealing the core-shell structure of the prepared homogeneously decorated as well as Janus hybrid particles: (a) PAA-100; (b) PAA-200; (c) PAA-450; (d) PDMAEMA-1μm; (e, f) PDMAEMA/PLMA-JP-1μm.

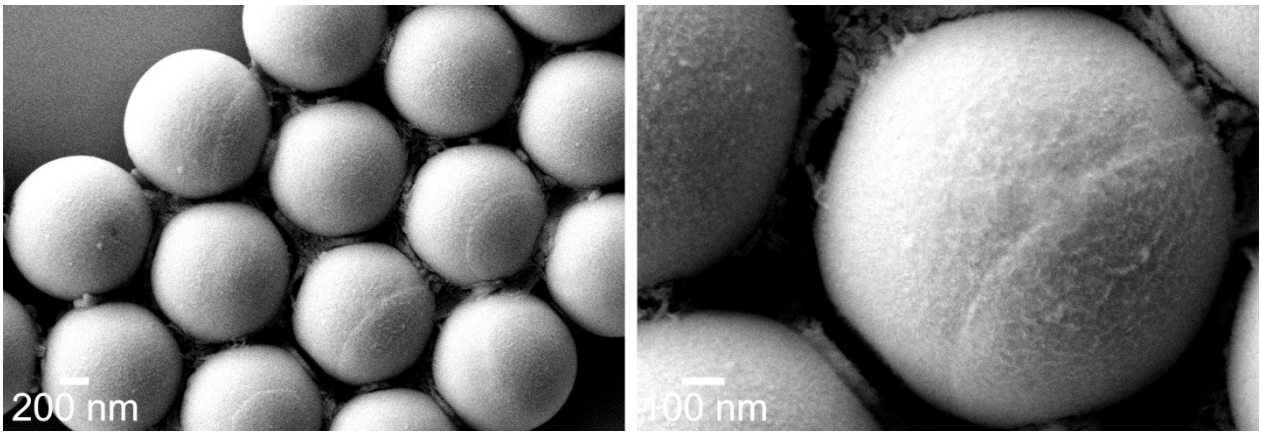

Figure S2. SEM images of the PDMAEMA/PLMA-JP-1µm Janus particles.

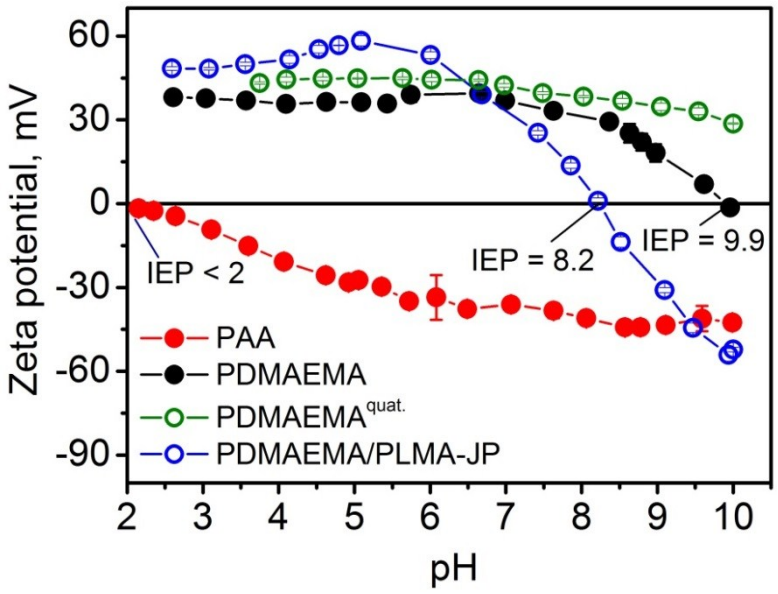

Figure S3. Electrophoretic measurements of silica particles covered with polymer shells: silica particles homogeneously decorated with PAA (red circles); silica particles homogeneously decorated with PDMAEMA (black circles); silica particles homogeneously decorated with quaternized PDMAEMA (green circles); PDMAEMA/PLMA Janus particles (blue circles).

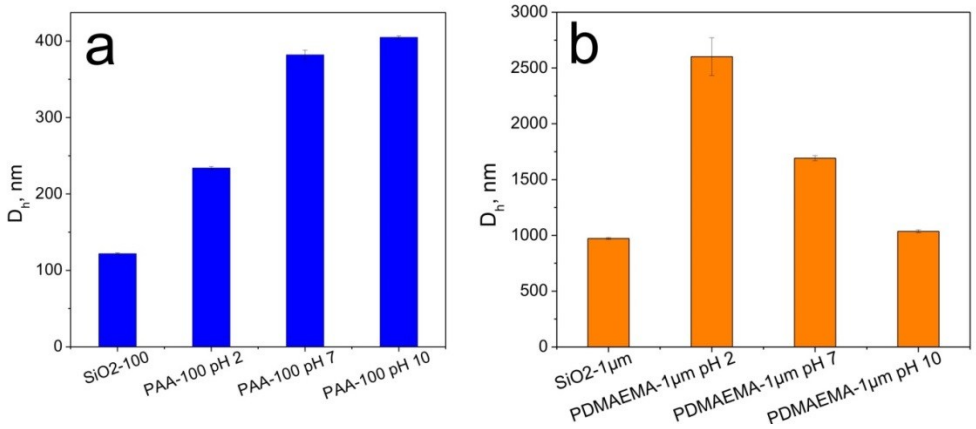

Figure S4. Hydrodynamic diameter (D_h) of the corresponding undecorated SiO_2 core particles, and (a) PAA-100, as well as (b) PDMAEMA-1µm homogeneously decorated core-shell particles depending on the pH value of the dispersion measured by DLS.

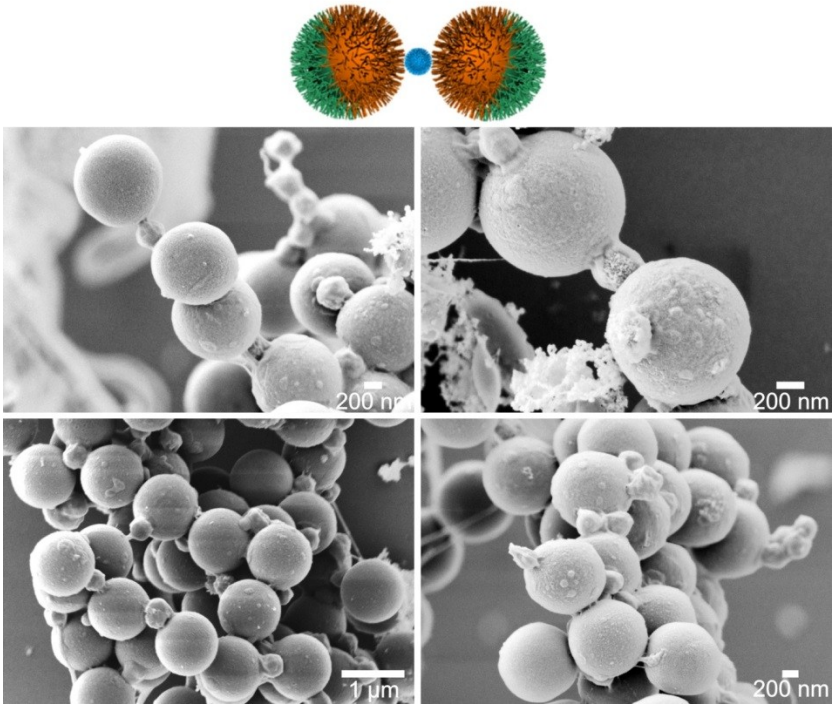

Figure S5. Representative cryo-SEM images of the structures formed in solution during the self-assembly of PAA-450 homogeneously decorated and PDMAEMA/PLMA-JP-1µm Janus particles (1:5).

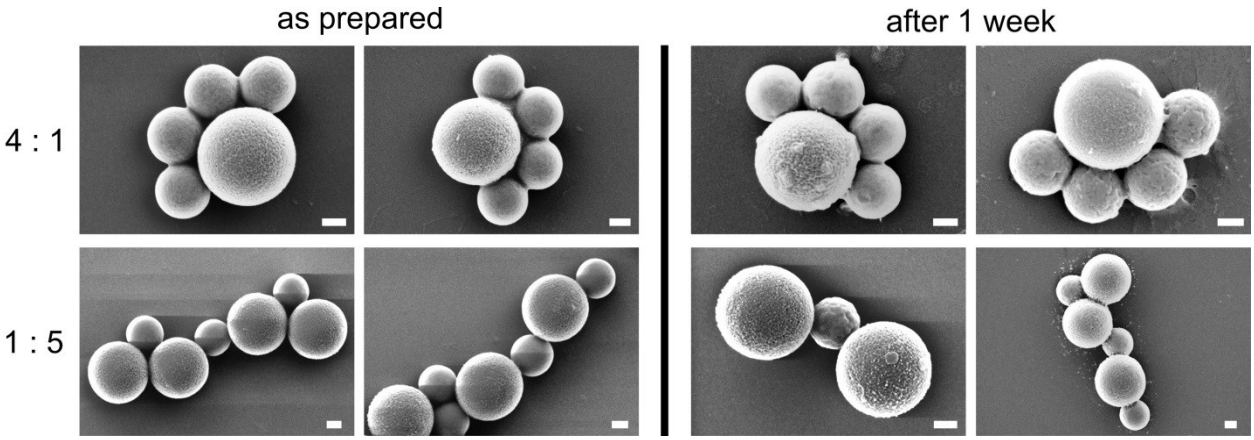

Figure S6. Representative SEM images of the micro-clusters assembled from PAA-450 and PDMAEMA/PLMA-JP-1μm directly after dispersion preparation (left), and after imaging the same dispersion in 1 week and additional sonication (right). Upper row: half-raspberry-like micro-clusters (PAA:JP = 4:1); lower row: dumbbell-like micro-clusters (PAA:JPs = 1:5). Scale bars: 200 nm.