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Electronic Supplementary Information for:

A facile strategy to fabricate covalently linked raspberry-

like nanocomposites with pH and thermo tunable structures

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Scheme S1. Schematic illustration of synthesis of BTPT

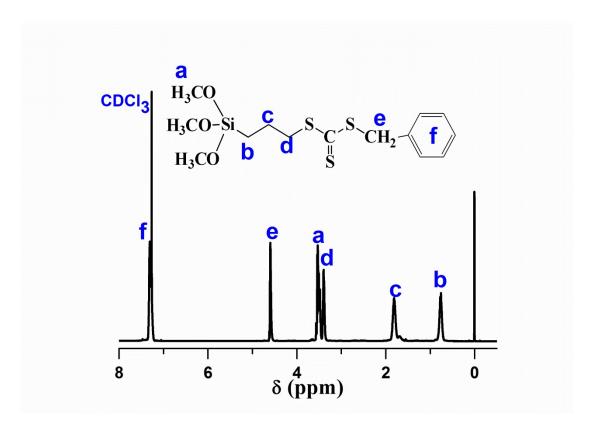


Figure S1. 1 HNMR spectrum of BTPT

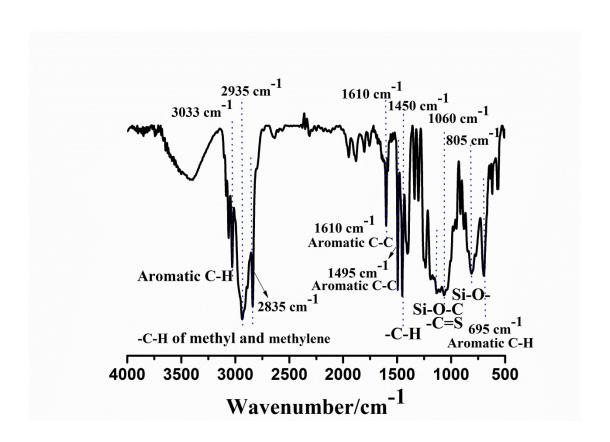


Figure S2. FTIR spectrum of BTPT

$$St = AIBN, THF$$

$$H_3CO$$

$$H_3CO$$

$$S$$

$$H_3CO$$

$$S$$

$$H_3CO$$

$$S$$

$$H_3CO$$

$$S$$

$$H_3CO$$

$$S$$

$$H_3CO$$

Tsi-PSt Macro-RAFT agent

Scheme S2. Schematic illustration of synthesis of Tsi-PDMAEMA-PSt

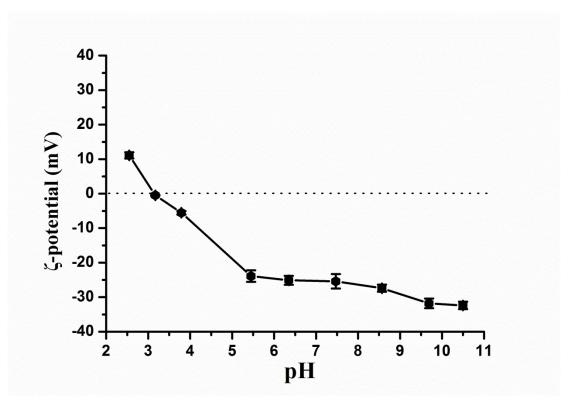
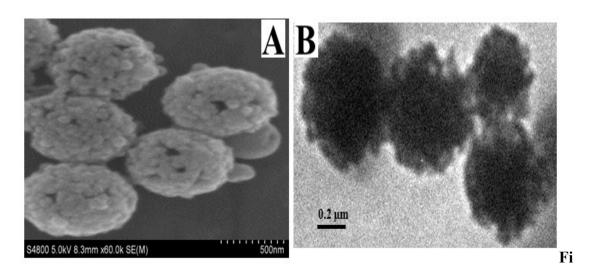


Figure S3. Zeta potential of silica particles in water at different pH values



gure S4. Typical SEM and TEM images of silica@polymer composite particles after ultrasonication treatment

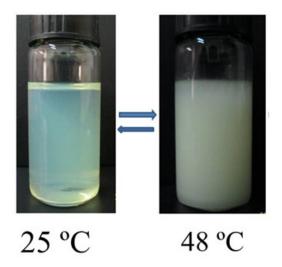


Figure S5. Photographs of the thermo-triggered aggregation-disaggregation transitions of silica@polymer particles at pH 7.4. Thermoresponsiveness of silica@polymer particles are due to the reversible hydrophilic-hydrophobic transitions of PDMAEMA chains triggered by temperature.

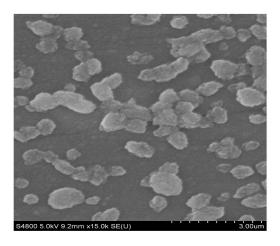


Figure S6. Typical SEM image of silica@polymer particles collected at 48 $^{\rm o}$ C