

Supporting Information

Non-Close-Packed Particle arrays Based on Anisotropic Red Blood Cell (RBC)-like Particles via Stretching Deformation Method

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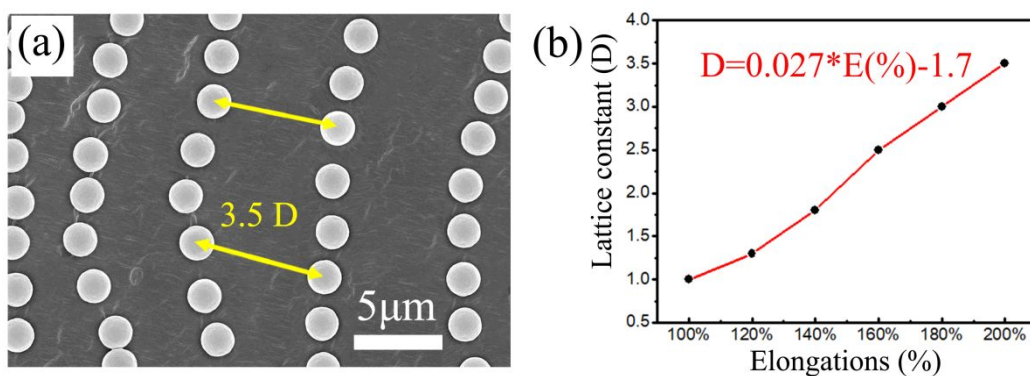


Figure S1. (a) The quasi-one-dimensional chain-like particle arrays with 200% elongations and the lattices constant are 3.5 D. The PE film occurred unevenly elongated at current elongations. (b) The functional relationship of the stretching elongations and the lattice constants, which displays a linear relationship.

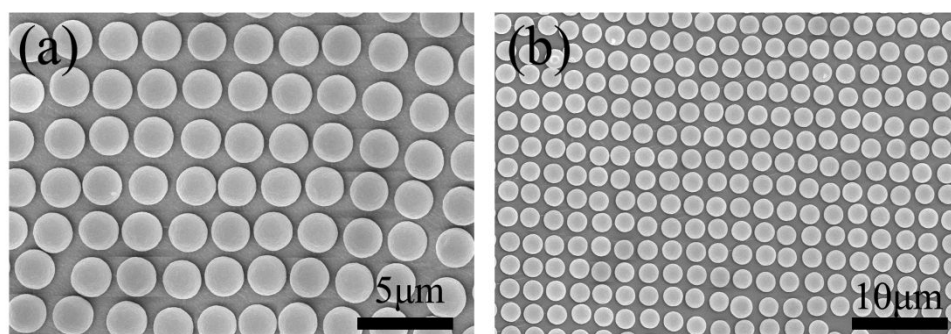


Figure S2. The SEM image of the large area particle arrays with oblique and square lattice structures.

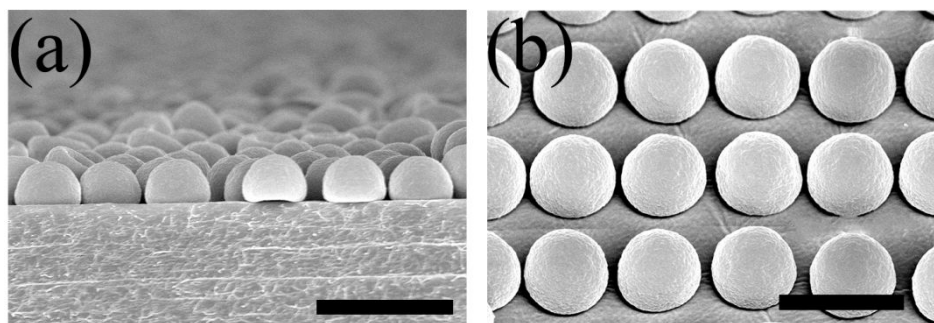


Figure S3. The cross-section of the particle arrays with square lattice, showing the free-standing and stable state of the RBC-like Janus particles.

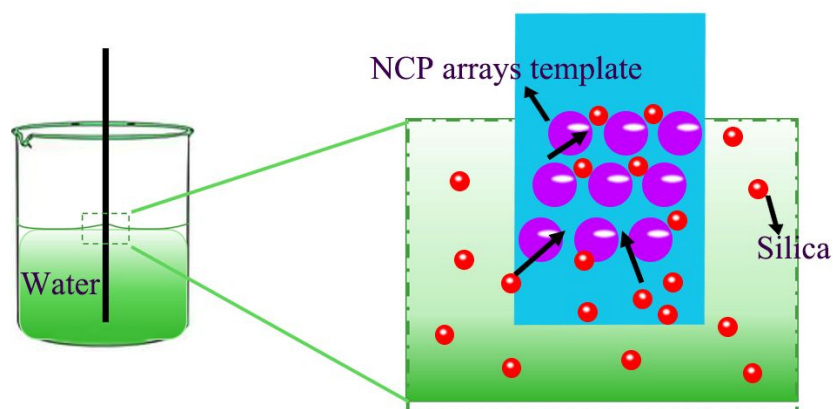


Figure S4. The schematic of the vertical deposition method based on the NCP particle arrays.

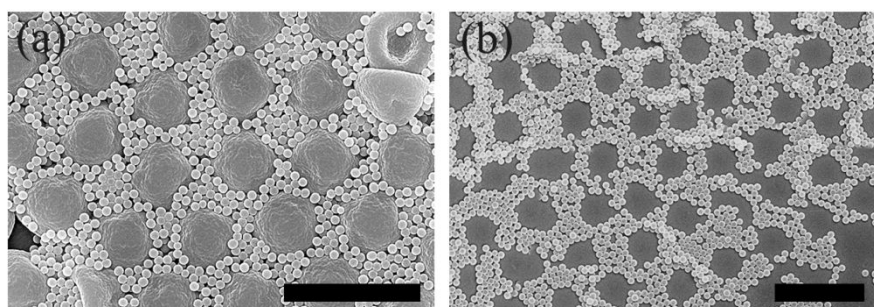


Figure S5. (a) SEM image of the binary particle arrays with RBC-like particles and 185 nm silica particles. (b) The NCP silica particle arrays by selectively etching the polymer RBC-like particles (500°C, 3h).

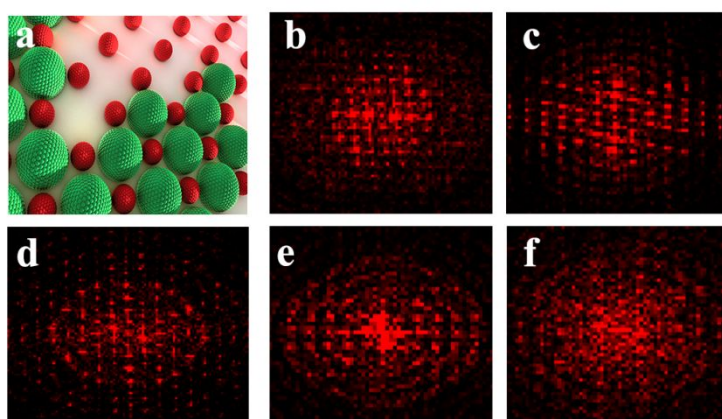


Figure S6. The corresponding FFT information of the binary particle arrays in Figure 7, showing the quality of the arrays.