

Electronic Supplementary Information for
Polymer brush nanopatterns with controllable features for
protein pattern applications

Yunfeng Li,^a Junhu Zhang,^a Liping Fang,^a Liming Jiang,^b Wendong Liu,^a Tieqiang Wang,^a Liying Cui,^a Hongchen Sun,^b Bai Yang^{*a}

□ State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry, Changchun 130012 (P. R. China)

*Corresponding author. Tel: +86 431 85168478. Fax: +86 431 85193423.

E-mail: byangchem@jlu.edu.cn

^bSchool of Stomatology, Jilin University, Changchun 130012 (P. R. China)

Supplementary figures

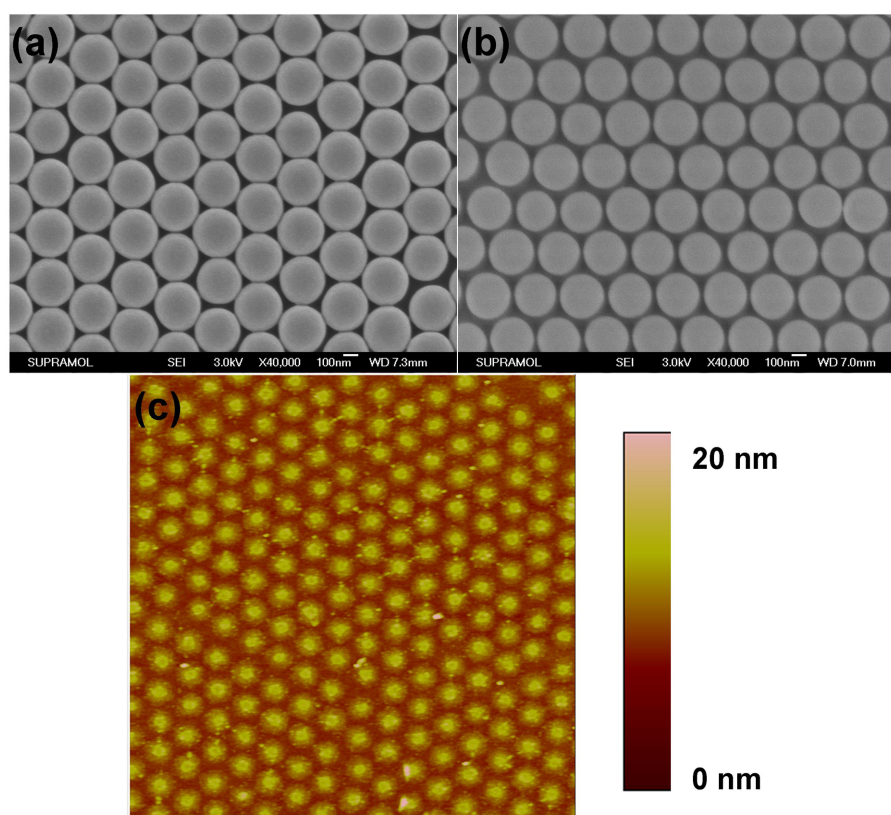


Figure S1. (a) The 2D PS colloidal crystals of 320 nm in period, (b) the 2D PS colloidal crystals after RIE 120 s, (c) the ATRP initiator patterns after etching 120 s,

size is $5\ \mu\text{m} \times 5\ \mu\text{m}$.

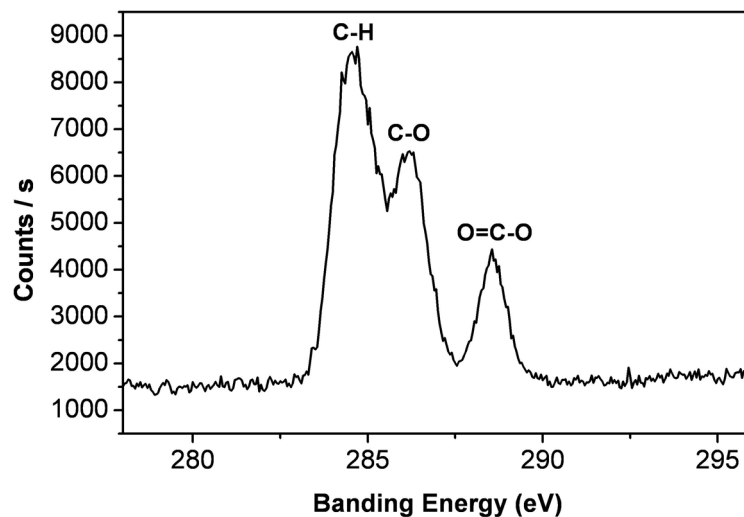


Figure S2. High-resolution C1s XPS of PHEMA brush nanoarrays.

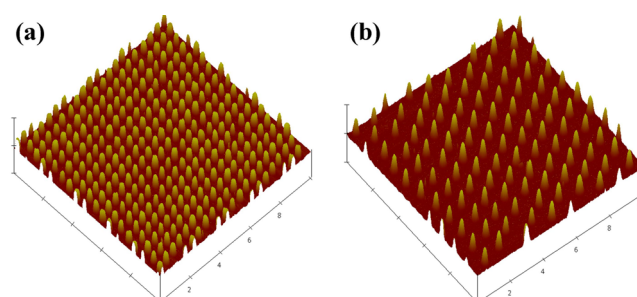


Figure S3. 3D AFM images of PHEMA brush nanopatterns with periods of 580 nm (a) and 1000 nm (b), z scale is 100 nm and sizes are $10\ \mu\text{m} \times 10\ \mu\text{m}$.

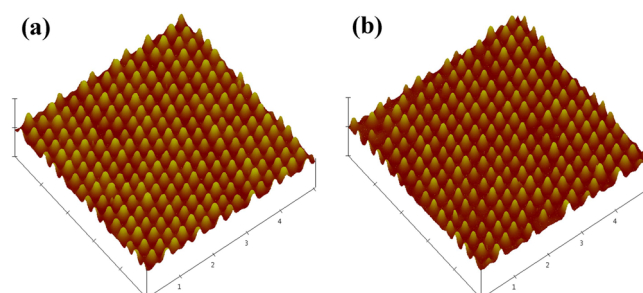


Figure S4. 3D AFM images of poly (N-isopropyl acrylamide) (PNIPAM) (a) and poly (2-(dimethyl amino) ethyl methacrylate) (PDMAEMA) (b) brush nanopatterns with

period of 320 nm, z scale is 100 nm and sizes are 5 μm $\times$ 5 μm .

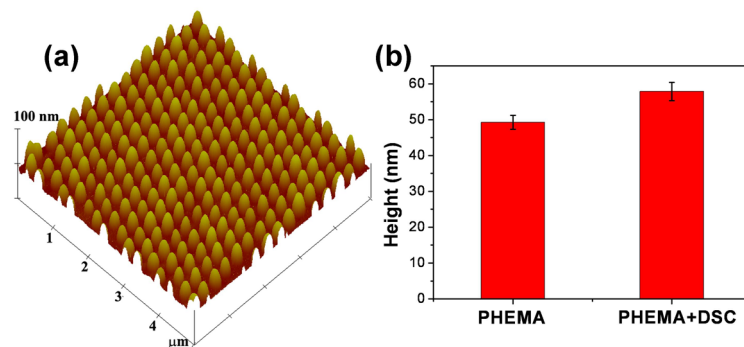


Figure S5. (a) 3D AFM images of the polymer arrays with 320 nm in period. (b) The heights of the polymer brush nanoarrays before and after modified by DSC.