pharmaceutics

Supplementary Materials: Ultrasound-Responsive Smart Drug Delivery System of Lipid Coated Mesoporous Silica Nanoparticles

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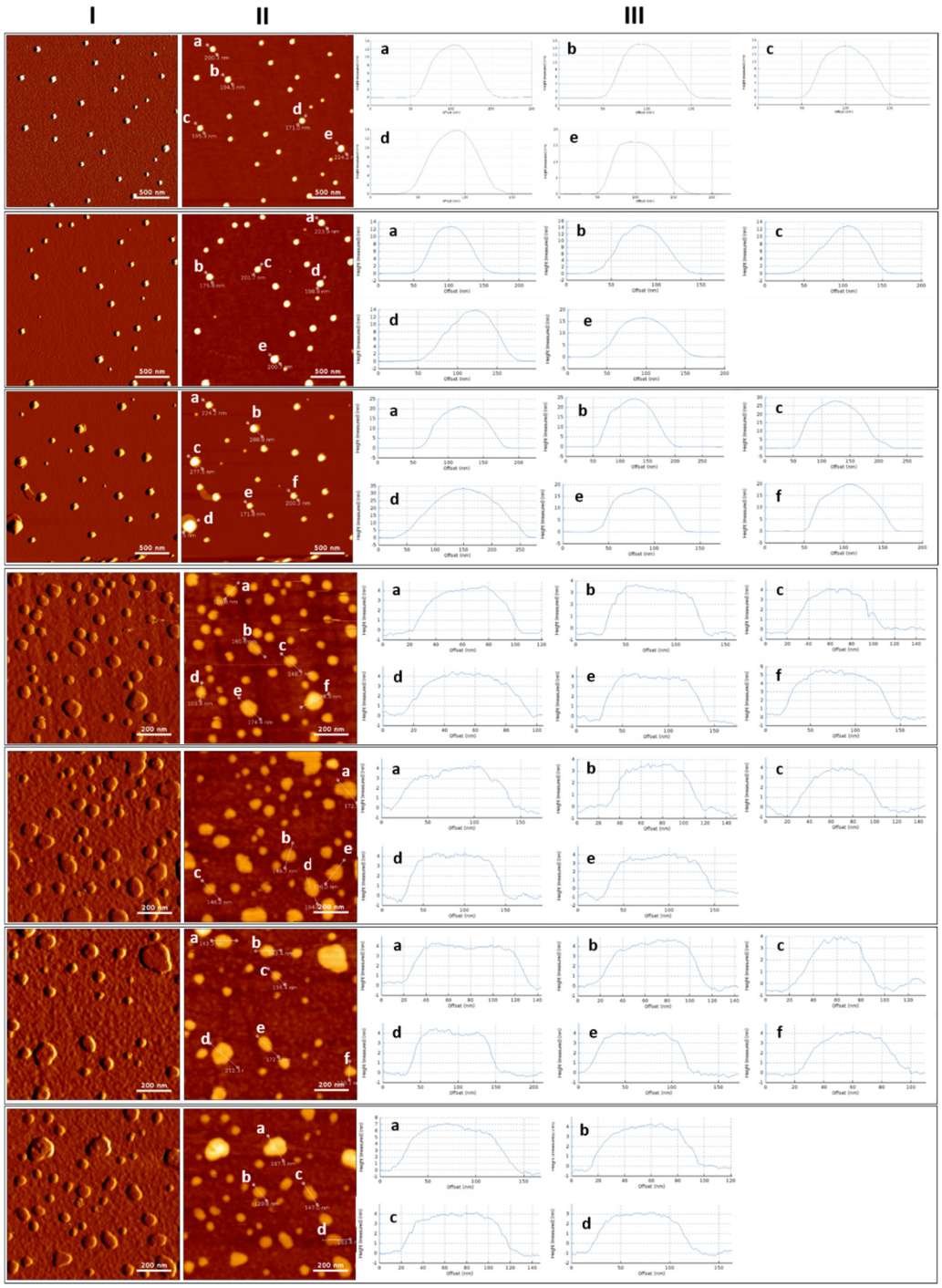

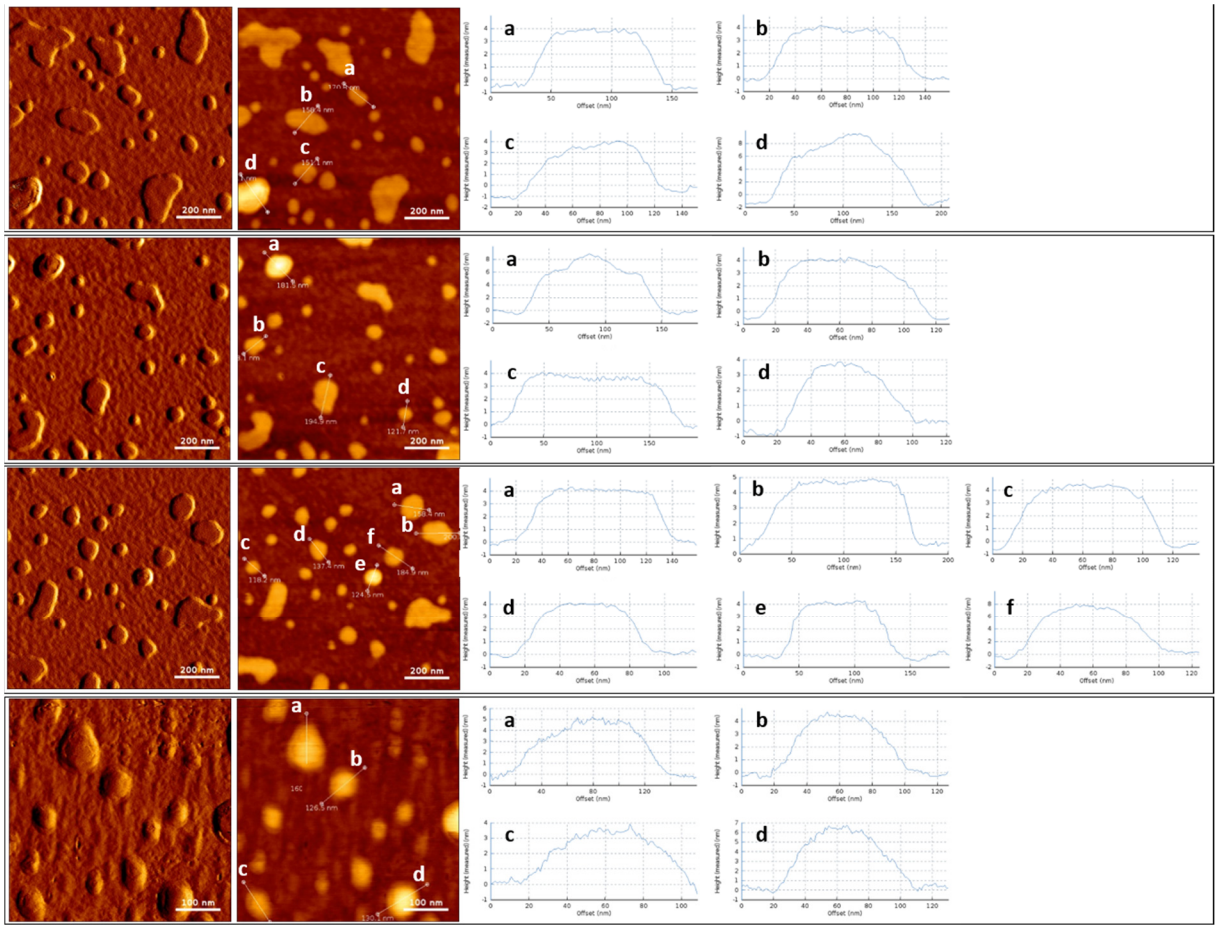

Figure S1. Atomic force microscopic images from different areas and magnifications where MSNPs are shown in amplitude trace (I), measured height trace (II) along with graphs (a-f) of different particles (III) representing the size distribution.

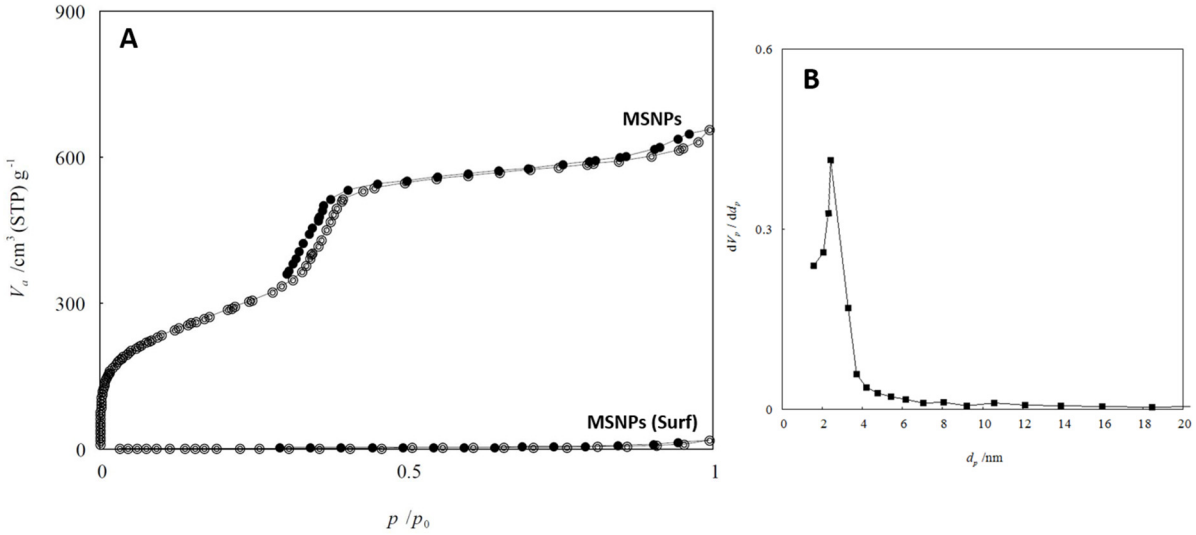

Figure S2. Surface area and pore size evaluation by (A) nitrogen adsorption-desorption and according to BET method the surafce area of MSNPs has been increased from 8.3 m^2/g to 1054 m^2/g after surfactant removal, (B) BJH pore diameter is 2.43 nm.

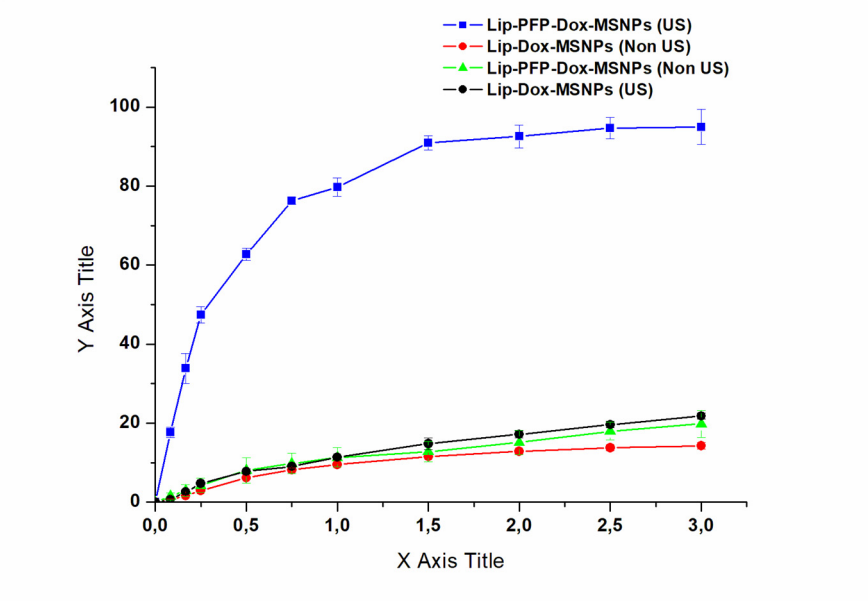

Figure S3. Drug release profile of Lip-PFP-Dox-MSNPs and Lip-Dox-MSNPs with and without US at 37°C, showing the triggered release from Lip-PFP-Dox-MSNPs just upon US irradiation.

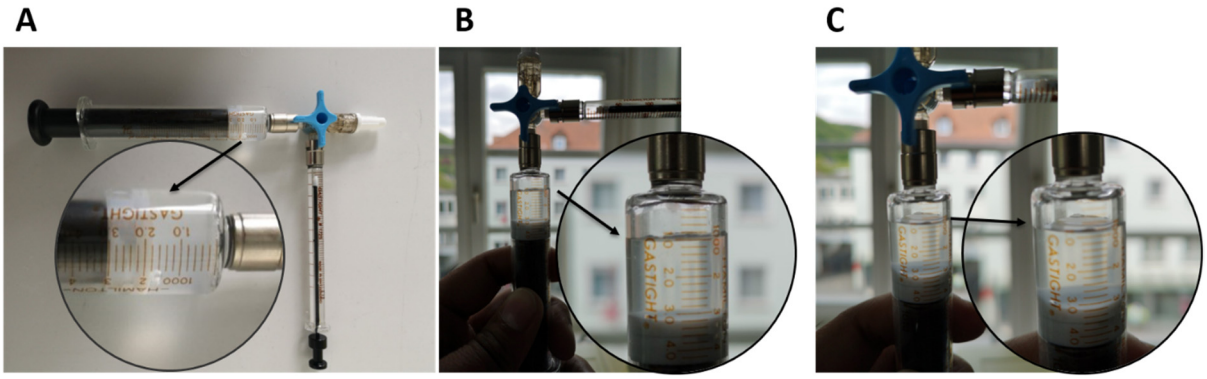

Figure S4. Two way Luer lock system used for the measurement of gas produced where (A) is showing the volume before US, while (B & C) showing the volume of gas produced after US irradiation. The circles are magnified areas indicated with black arrows.