

Supplementary Information for

Antibacterial Sponge for Rapid Noncompressible Hemostatic Treatment: Spatiotemporal Studies Using a Noninvasive Model

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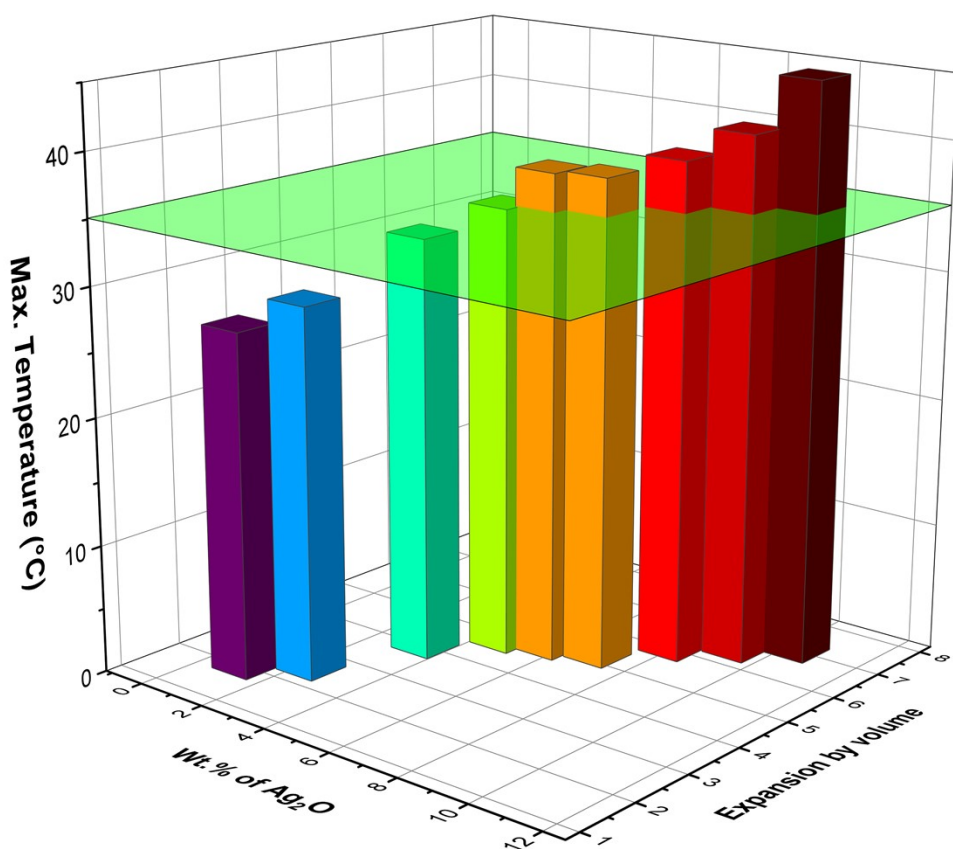


Figure S1: 3D plot showing temperature/expansion variance with concentration of Ag₂O in Part A. The green plane marks 35 °C.

Table S1: Composition of SilFoam Part A and SilFoam Part B.

SilFoam Part A	Wt.% PDMS	Wt.% Surfactant	Wt.% Ag₂O
	94	2	4
SilFoam Part B	Wt.% PDMS	Wt.% Surfactant	Wt. % H₂O₂
	94	2	4

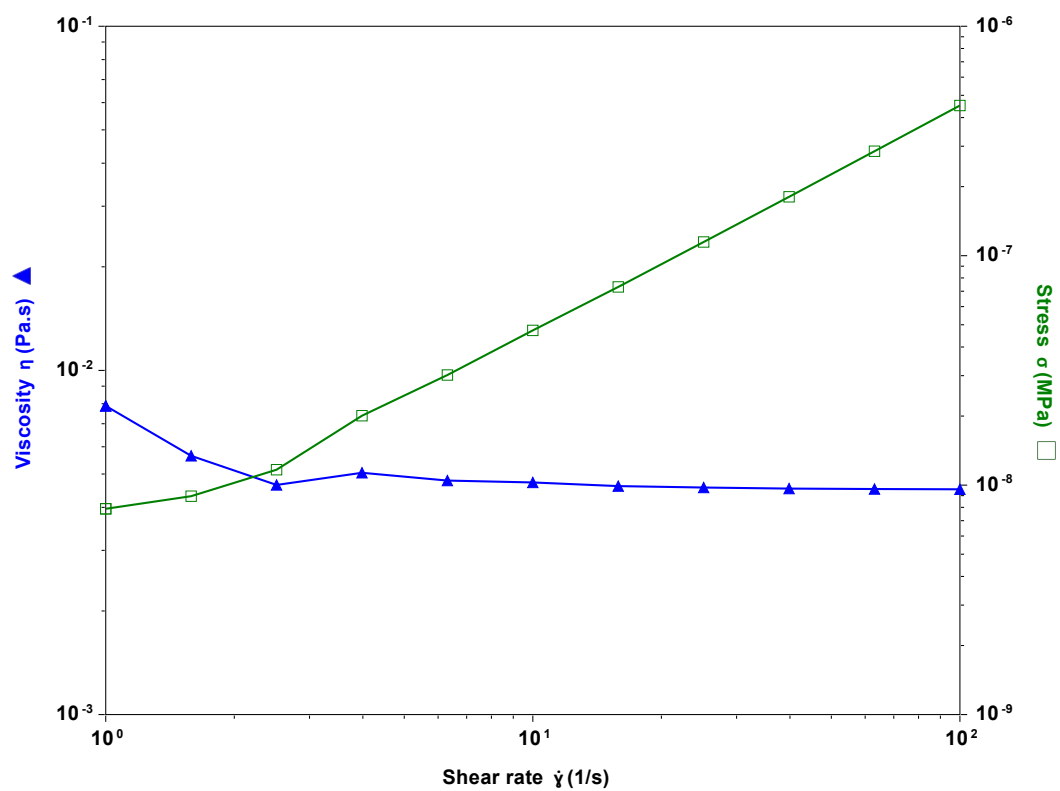


Figure S2: Viscosity of artificial blood being used. Viscosity measured to be around 4.5 cP.

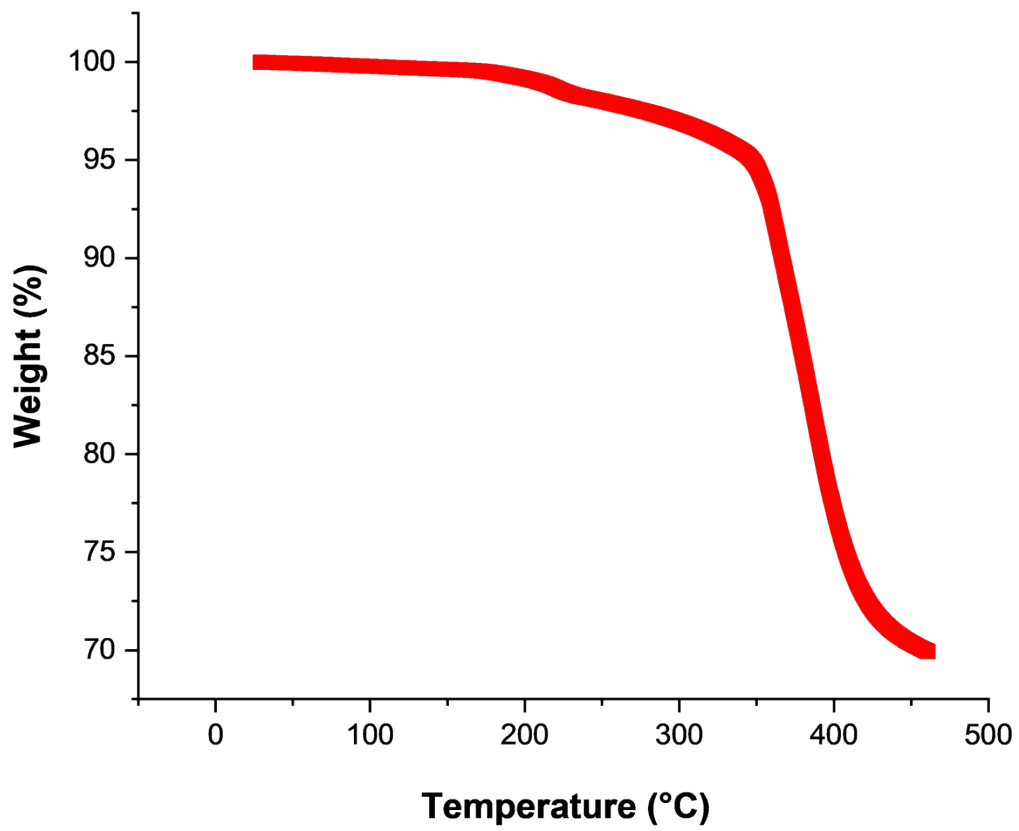


Figure S3: Thermogravimetric analysis of SilFoam. SilFoam was found to be stable up to high temperatures of 350 °C.

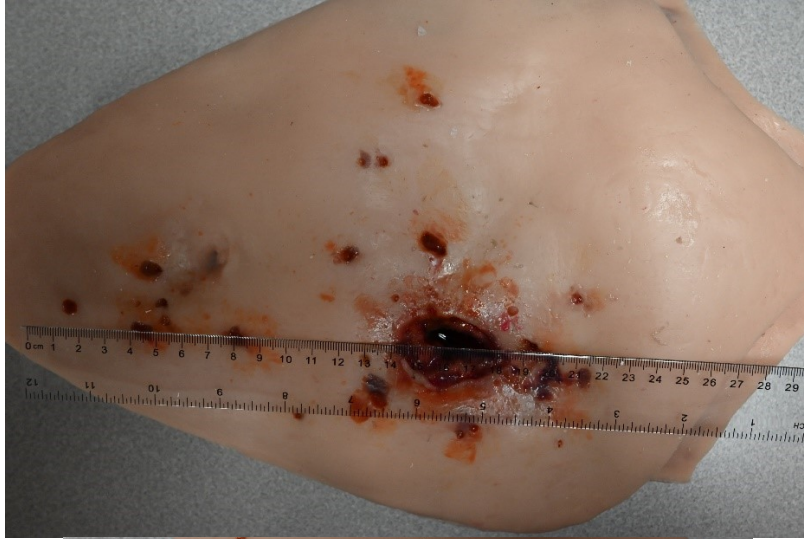


Figure S4: Image showing dimensions of simulated torso wound on the silicone manikin.

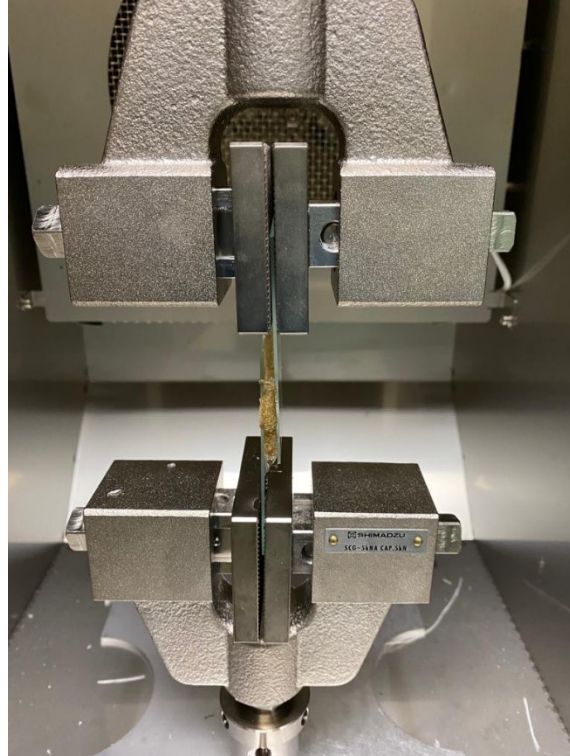


Figure S5: Lap shear testing procedure.

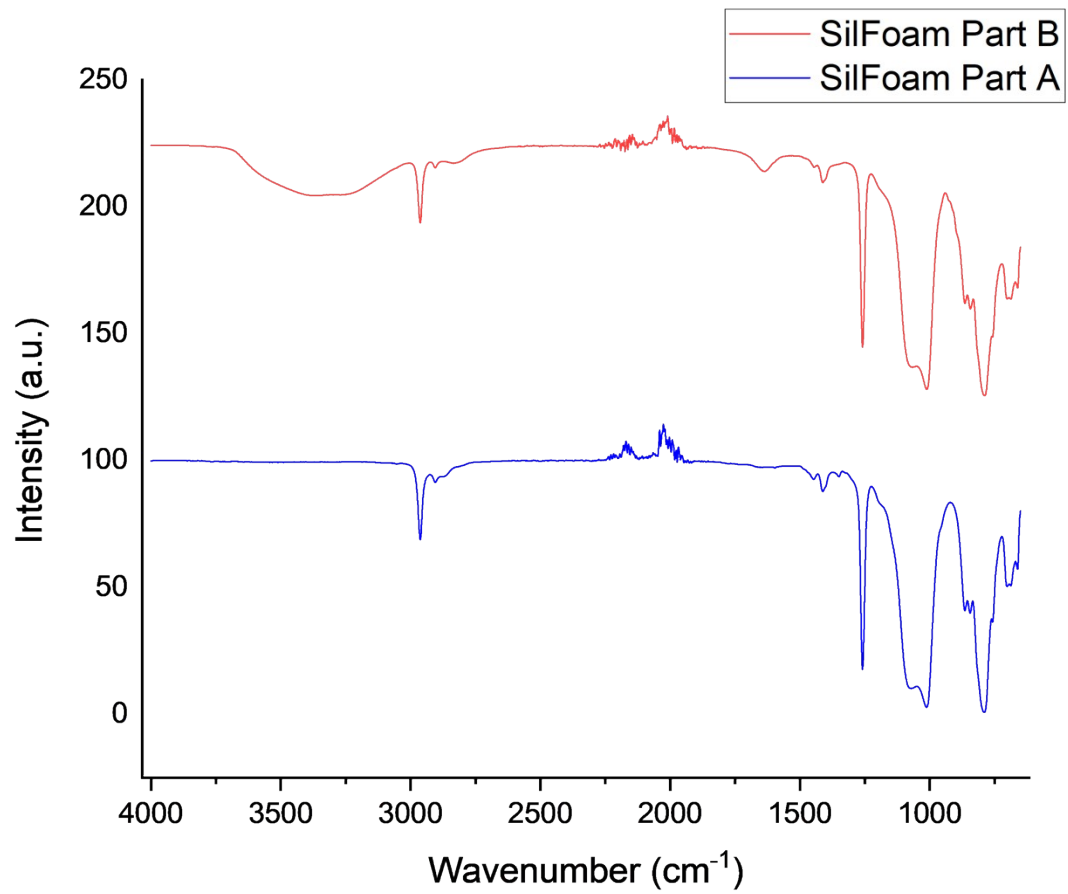


Figure S6: ATR-FTIR of SilFoam Part A and SilFoam Part B.

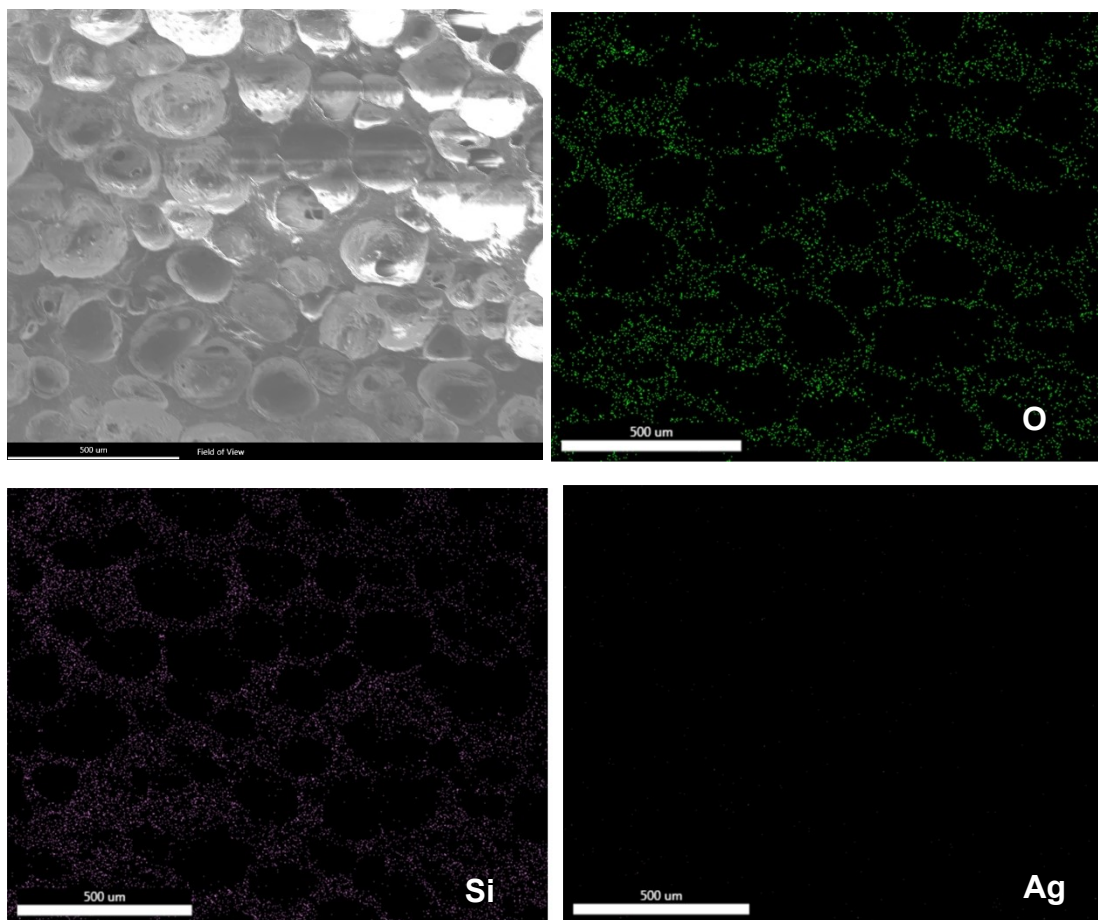


Figure S7: EDS - Elemental Mapping of SEM micrograph of SiIFoam. 65% Si and 34% O detected by EDS along with trace amounts of Ag (1%)

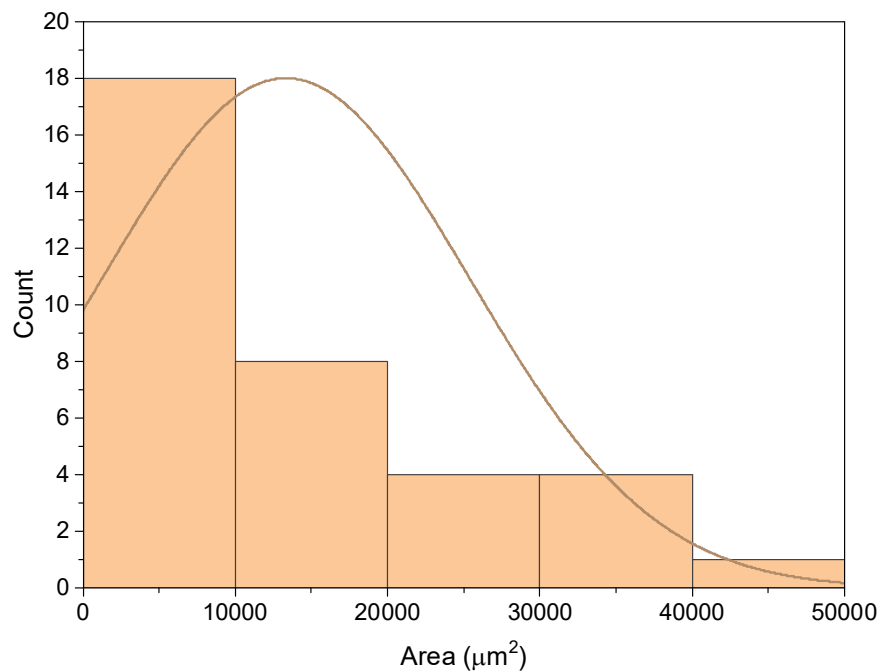
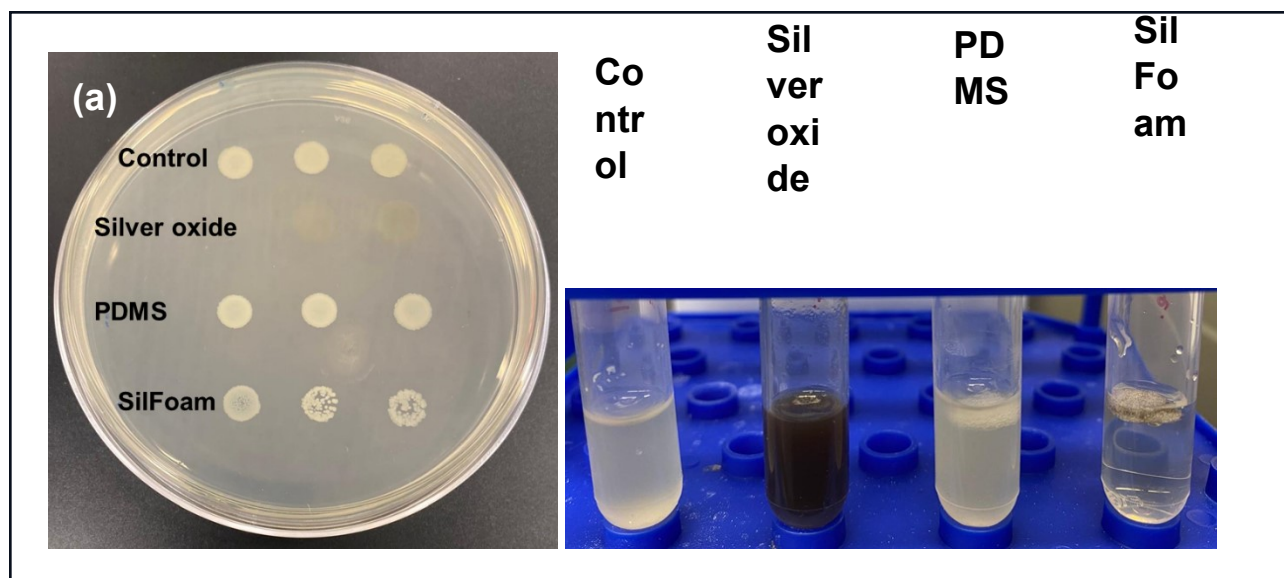


Figure S8: Pore size distribution of cross-section of preformed SilFoam.



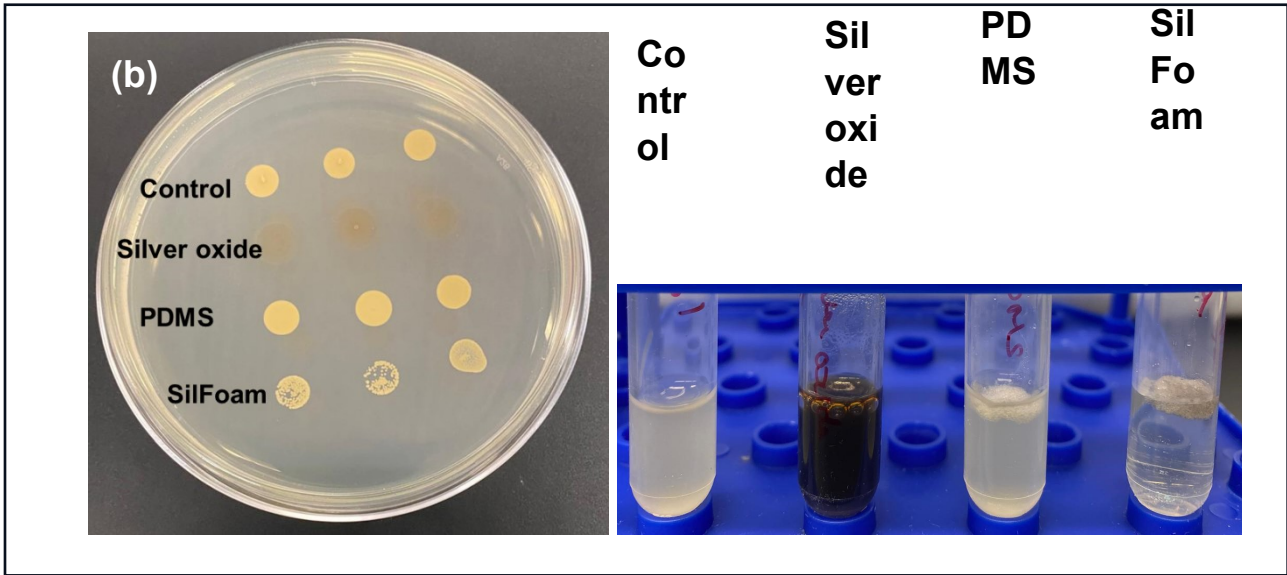


Figure S9: Colony counting assays: Bacterial growth 24 hours post 24 hours of incubation (a) *E. coli*; (b) *S. aureus*