

SUPPLEMENTARY MATERIALS

Femtosecond laser modified metal surfaces alter biofilm architecture and reduce bacterial biofilm formation

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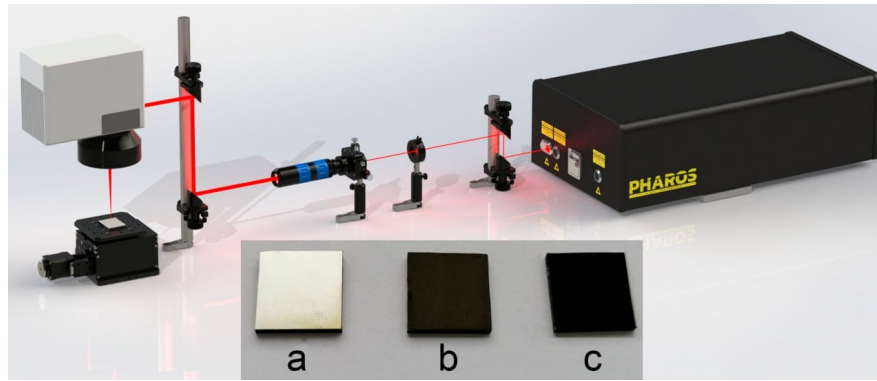


Figure S1. Schematics of the laser writing setup. Insert: examples of stainless-steel coupons (1 cm²) which are (a) untreated and (b,c) laser-irradiated at different conditions (b) AG and (c) CS surfaces (see Table 1 for the laser parameters).

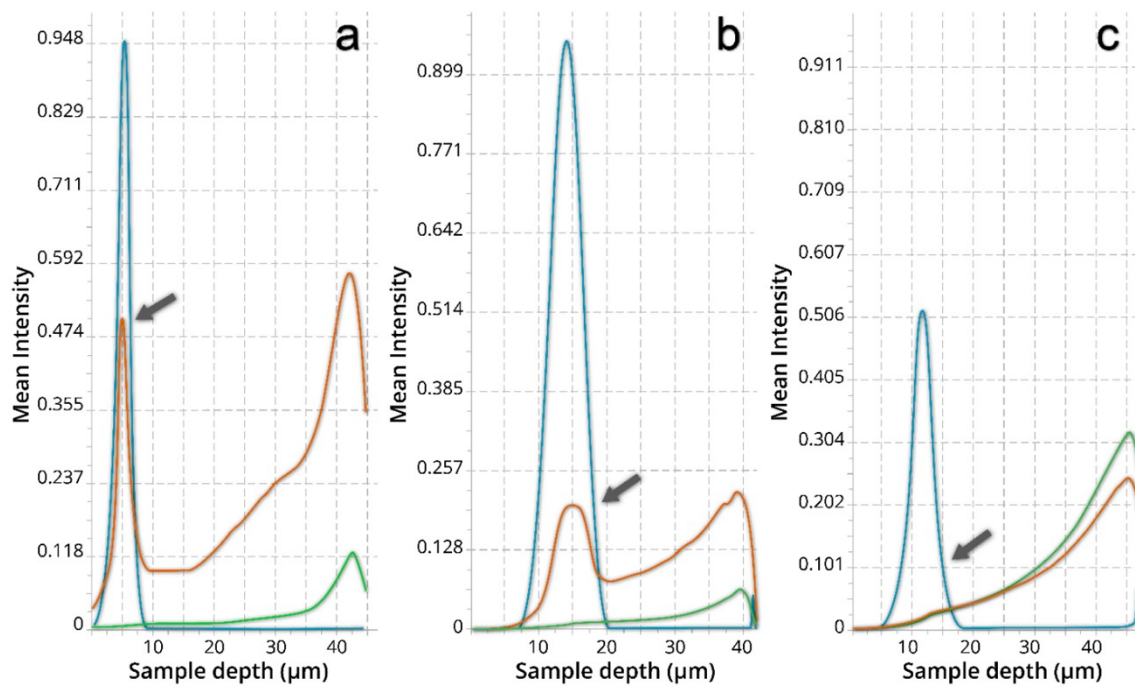


Figure S2. Normalized quantitative evaluation of signal intensities in three-day old biofilms of *P. aeruginosa* PA01 formed onto (a) non-treated (control), (b) AG and (c) CS metal surfaces in different regions: (blue) metal surface, (red) eDNA and (green) amyloids. Arrows indicate the DNA adhesion to the metal surface in (a) and (b) and the absence of eDNA on the metal surface in (c).

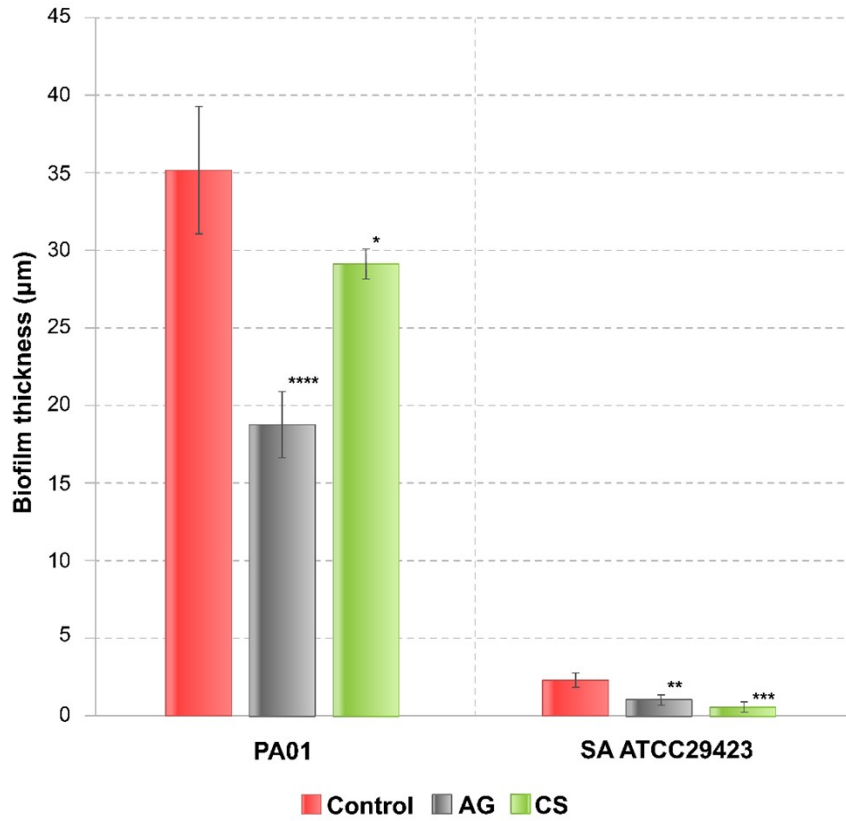


Figure S3. Average thickness of three-day old biofilms produced by *P. aeruginosa* PA01 and *S. aureus* ATCC29423 onto non-treated (control), AG and CS metal surfaces. Statistical significance compared to control: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$, **** $p < 0.001$.

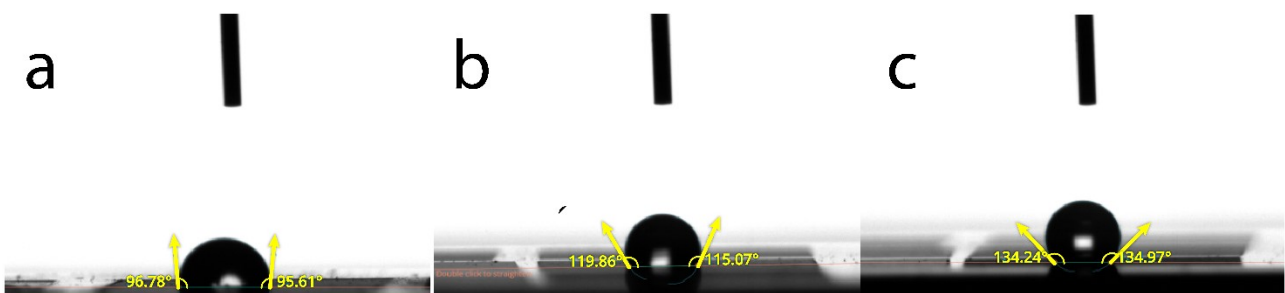


Figure S4. Surface wettability measurements for (a) untreated, (b) AG and (c) CS surfaces.

Table S1. Quantitative analysis of the elements evaluated with energy dispersive spectroscopy.

	C	O	Al	Si	Cr	Mn	Fe	Ni	Cu
Non-treated	2.91	0.08	0.14	0.42	14.36	9.73	70.22	1.35	0.79
AG	7.61	6.07	0.36	0.44	12.71	10.14	60.68	1.08	0.91
CS	8.23	18.23	0.26	0.45	10.81	8.21	51.96	0.96	0.89