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SUPPORTING INFORMATION

Anti-biofouling and antibacterial surfaces via a multicomponent coating deposited from an up-scalable atmospheric-pressure plasma-assisted CVD process

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Figure S1 presents the SEM picture of the plasma deposited multicomponent layer from DOA and VTMOS monomers. The pinhole-free layer covers homogeneously the entire stainless-steel surface.

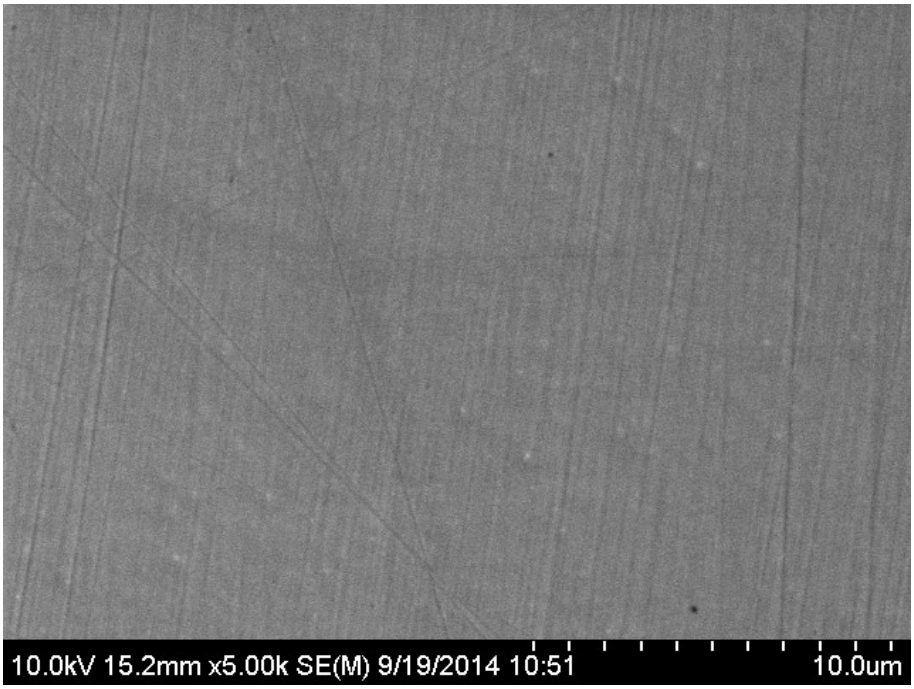

Figure S1. SEM picture of the plasma deposited multicomponent coating. [43] Copyright Wiley-VCH Verlag GmbH & Co. KGaA. Reproduced with permission.

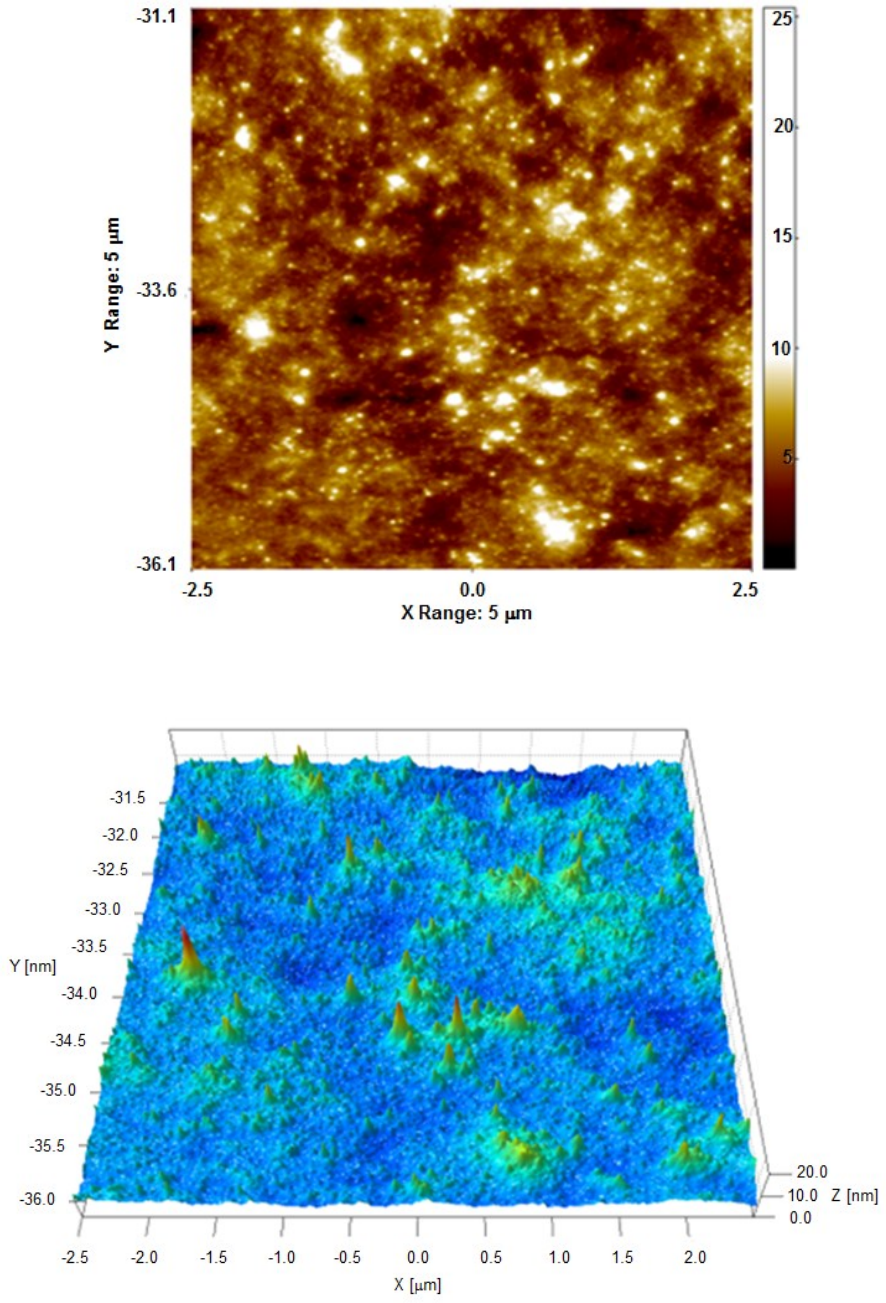

Figure S2. AFM pictures of the plasma deposited layer.

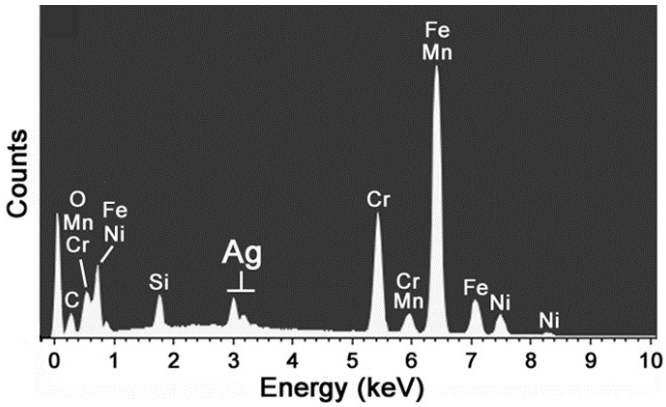

Figure S3. EDX analysis of the plasma polymer layer with immobilized silver nanoparticles. [43] Copyright Wiley-VCH Verlag GmbH & Co. KGaA. Reproduced with permission.

Table S1. Main absorption band for FT-IR spectra of DOA and VTMOS monomers and pp(DOA-VTMOS) layer.

Absorption band (cm^{-1})				
DOA	**VTMOS**	**pp(DOA-VTMOS)**	**Functional group / assignment**	**Vibration**
3465			N-H in secondary amide	Stretching
		3350	N-H / O-H / Si-OH	Stretching
3345			O-H C=O	Stretching Stretching, overtone
	3060		C-H in CH_2 vinyl	Stretching
3249			O-H, N-H	Stretching
		2947	C-H in O-CH_3.	Asymmetric stretching
	2944		C-H in O-CH_3.	Asymmetric stretching
		2845	CH_2	Symmetric stretching
	2842		C-H in O-CH_3	Symmetric stretching
		1731	C=O in acid	Stretching
		1718	C=O in ketone	Stretching
1658		1646	C=O secondary amide, amide I	Stretching
1600	1600	1600	C=C in aromatic and vinyl	Stretching
1556		1546	N-H secondary amide, amide II band	In-plane-bending
1517		1525	C=C aromatic ring	Stretching
1469			-CH_2-	Scissoring
	1462		CH_3 in O-CH_3	Umbrella mode
		1454	C-CH_3	Asymmetric bending
	1410		CH_2 in –C=CH_2	Deformation
		1371	C-CH_3	Symmetric bending umbrella
1274		1280	C-N, secondary amide, amide III	Stretching
1211			O-H in catechol, C-H in substituted benzene	Bending In-plane-bending
	1190	1195	CH_3 in Si-O-CH_3	Rocking
1120			C-H in substituted benzene	In-plane-bending
		1111	Si-O-Si Si-O-C in Si-O-CH_3	Asymmetric stretching Asymmetric stretching
	1075		Si-O-C in Si-O-CH_3	Asymmetric stretching
	1010		C=CH	Wagging
980			C-H in R-CH=CH_2	Out-of-plane bending
	968		C=CH_2	Wagging
958			C-H in substituted benzene	Out-of-plane bending
		941	Si-O in Si-OH	Stretching

877			CH_2 in vinyl	Out of plane deformation
		821	C-H in naphthalene, anthracene	Out-of-plane deformation
	810		Si-O in Si-O-CH3	Bending

Table S2: Main absorption bands for Raman spectra in the 3000-300 cm^{-1} range.

Absorption band (cm^{-1})				
DOA	**VTMOS**	**pplayer**	**Functional group/assignment**	**Vibration**
	2938	2937	CH_3 in $SiOCH_3$ CH_3 in alkane	Asymmetric stretching Asymmetric stretching (broad peak)
2920			CH_2 alkane	Asymmetric stretching
	2836	2836	CH_3 in $SiOCH_3$	Symmetric stretching
1656			C=O, secondary amide Amide I band	
		1649	C=O, secondary amide Amide I band and C=C in acrylamide	
1630			C=C conjugated with C=O, C=C in acrylamide	stretching
1608		1607	C=C ring	stretching
	1593		C=C vinyl	Stretching
	1451		CH_3	Asymmetric deformation
1417			CH_2 in vinyl	In plane deformation
	1404		CH_2 in vinyl CH_2 CH_3	In plane deformation
1322			C=O secondary amide Amide III band	
		1292	C=O secondary amide Amide III band	
1278			C-H in vinyl bond in acrylamide	In-plane-bending
	1270		C-H in vinyl	In-plane-bending
	1094	1094	Si-O in Si-O-C	Stretching
610	614		C-H in vinyl	Bending