

Article

Biofilm-Induced Corrosion Inhibition of Q235 Carbon Steel by *Tenacibaculum mesophilum* D-6 and *Bacillus* sp. Y-6

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Supplementary Information

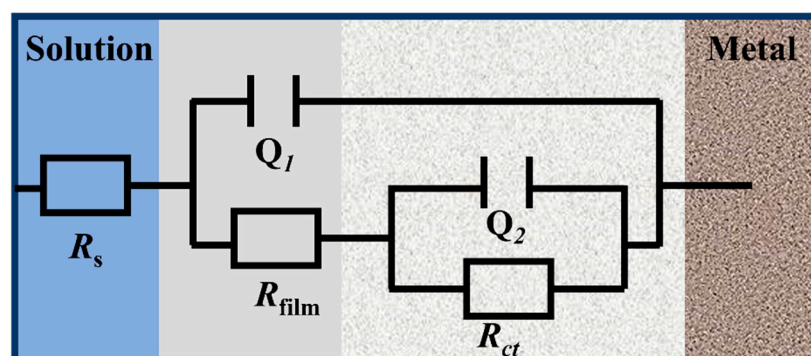


Figure S1. Equivalent circuits used for EIS data analysis. Herein, R_s represents the resistance of the solution, R_{film} is the resistance of the film (biofilm and corrosion products film), R_{ct} is the charge transfer resistance, Q_1 is the capacitance of the film, and Q_2 is the capacitance of electrical double layer.

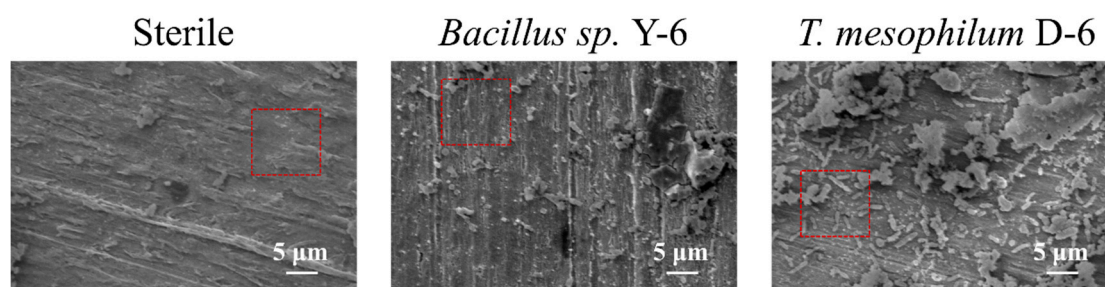


Figure S2. The sampling regions for EDS test.

Table S1. EIS parameters of Q235 coupons in different culture.

Time		$R_s (\Omega \cdot \text{cm}^2)$	$Q_1 (\Omega^{-1} \cdot \text{cm}^{-2} \cdot \text{s}^n)$	n_1	$R_f (\Omega \cdot \text{cm}^2)$	$Q_2 (\Omega^{-1} \cdot \text{cm}^{-2} \cdot \text{s}^n)$	n_2	$R_{ct} (\Omega \cdot \text{cm}^2)$
1 day	sterile	10.62	0.000116	0.97	69.8	0.00039	0.64	3911
	<i>Bacillus</i> sp. Y-6	8.49	0.000037	0.99	88	0.00017	0.71	4650
	<i>T.mesophilum</i> D-6	7.10	0.000061	0.95	6670	0.00006	0.57	26110
4 day	sterile	7.52	0.000013	0.92	31.59	0.0037	0.80	6974
	<i>Bacillus</i> sp. Y-6	7.75	0.000077	0.92	103	0.00004	0.68	20830
	<i>T.mesophilum</i> D-6	7.06	0.000069	0.94	7520	0.00002	0.99	42290
7 day	sterile	14.42	0.003662	0.55	2582	0.00023	0.99	24640
	<i>Bacillus</i> sp. Y-6	8.15	0.000099	0.91	2329	0.00001	0.52	40930
	<i>T.mesophilum</i> D-6	8.09	0.000062	0.97	687	0.00001	0.89	39510