

**Table S2.** Compilation of superoxide measurements for loading experiments with 7 *Roseobacter* species.

Organism	Cell number	Steady-state concentration (nM)	Net production rate (amol cell <sup>-1</sup> h <sup>-1</sup> )
<i>Roseobacter</i> sp. AzwK-3b	2.0E+07	4.60	70.17
<i>Roseobacter</i> sp. AzwK-3b	4.0E+07	6.12	38.35
<i>Roseobacter</i> sp. AzwK-3b	6.0E+07	7.75	25.20
<i>Roseobacter</i> sp. AzwK-3b	8.0E+07	6.79	19.35
<i>Roseobacter</i> sp. AzwK-3b	1.0E+08	6.43	16.45
<i>Roseobacter</i> sp. AzwK-3b	5.0E+06	7.34	110.39
<i>Roseobacter</i> sp. AzwK-3b	1.0E+07	8.22	73.43
<i>Roseobacter</i> sp. AzwK-3b	1.5E+07	8.80	62.03
<i>Roseobacter</i> sp. AzwK-3b	2.0E+07	8.46	40.74
<i>Roseobacter</i> sp. AzwK-3b	2.5E+07	11.70	30.88
<i>Roseobacter</i> sp. AzwK-3b	3.0E+07	12.78	29.36
<i>Roseobacter</i> sp. AzwK-3b	3.5E+07	12.60	28.18
<i>Roseobacter</i> sp. AzwK-3b	4.0E+07	12.90	26.41
<i>Roseobacter</i> sp. AzwK-3b	4.5E+07	13.70	22.56
<i>Ruegeria pomeroyi</i> DSS-3	2.5E+07	3.80	18.25
<i>Ruegeria pomeroyi</i> DSS-3	5.0E+07	3.71	8.90
<i>Ruegeria pomeroyi</i> DSS-3	7.5E+07	2.66	4.26
<i>Ruegeria pomeroyi</i> DSS-3	1.0E+08	3.43	4.11
<i>Ruegeria pomeroyi</i> DSS-3	1.5E+08	5.05	4.04
<i>Ruegeria pomeroyi</i> DSS-3	1.8E+08	5.46	3.75
<i>Ruegeria pomeroyi</i> DSS-3	1.0E+08	3.20	3.84
<i>Ruegeria pomeroyi</i> DSS-3	2.0E+08	2.57	1.54
<i>Ruegeria pomeroyi</i> DSS-3	3.0E+08	4.48	1.79
<i>Ruegeria pomeroyi</i> DSS-3	4.0E+08	6.02	1.81
<i>Ruegeria pomeroyi</i> DSS-3	5.0E+08	6.44	1.55
<i>Phaeobacter</i> sp. Y3F	5.0E+07	6.62	15.90
<i>Phaeobacter</i> sp. Y3F	1.5E+08	10.80	8.64
<i>Phaeobacter</i> sp. Y3F	2.5E+08	9.21	4.42
<i>Phaeobacter</i> sp. Y3F	4.5E+08	11.17	2.98
<i>Phaeobacter</i> sp. Y3F	5.0E+07	3.92	9.42
<i>Phaeobacter</i> sp. Y3F	1.0E+08	3.23	3.87
<i>Phaeobacter</i> sp. Y3F	1.5E+08	5.31	4.24
<i>Phaeobacter</i> sp. Y3F	2.0E+08	5.54	3.32
<i>Phaeobacter</i> sp. Y3F	5.0E+08	18.94	4.55
<i>Phaeobacter</i> sp. Y3F	1.0E+09	15.88	1.91
<i>Phaeobacter</i> sp. Y3F	1.5E+09	12.00	0.96
<i>Phaeobacter</i> sp. Y3F	2.0E+09	6.07	0.36
<i>Roseobacter</i> sp. TM1038	1.0E+07	2.45	52.95
<i>Roseobacter</i> sp. TM1038	2.0E+07	2.40	24.40
<i>Roseobacter</i> sp. TM1038	3.0E+07	2.75	15.95
<i>Roseobacter</i> sp. TM1038	4.0E+07	2.65	11.53
<i>Roseobacter</i> sp. TM1038	5.0E+07	2.19	7.75
<i>Roseobacter</i> sp. TM1038	2.5E+06	4.41	117.54
<i>Roseobacter</i> sp. TM1038	5.0E+06	4.07	57.60
<i>Roseobacter</i> sp. TM1038	7.5E+06	3.99	44.07
<i>Roseobacter</i> sp. TM1038	1.0E+07	3.84	31.77
<i>Roseobacter</i> sp. TM1038	1.3E+07	3.23	21.02
<i>Sulfitobacter</i> sp. NAS-14.1	1.0E+08	3.89	4.67
<i>Sulfitobacter</i> sp. NAS-14.1	2.0E+08	3.88	2.33
<i>Sulfitobacter</i> sp. NAS-14.1	3.0E+08	3.06	1.22
<i>Sulfitobacter</i> sp. NAS-14.1	4.0E+08	2.86	0.86
<i>Sulfitobacter</i> sp. NAS-14.1	5.0E+08	2.30	0.55
<i>Sulfitobacter</i> sp. NAS-14.1	4.0E+08	3.94	1.18
<i>Sulfitobacter</i> sp. NAS-14.1	8.0E+08	4.63	0.69
<i>Sulfitobacter</i> sp. NAS-14.1	1.2E+09	4.89	0.49
<i>Sulfitobacter</i> sp. NAS-14.1	1.6E+09	4.67	0.35
<i>Sulfitobacter</i> sp. NAS-14.1	2.0E+09	4.51	0.27
<i>Roseovarius nubinhibins</i> ISM	5.0E+07	1.08	2.60
<i>Roseovarius nubinhibins</i> ISM	1.0E+08	1.53	1.83
<i>Roseovarius nubinhibins</i> ISM	1.5E+08	1.34	1.07
<i>Roseovarius nubinhibins</i> ISM	2.0E+08	1.94	1.17
<i>Roseovarius nubinhibins</i> ISM	2.5E+08	2.06	0.99
<i>Roseovarius nubinhibins</i> ISM	4.0E+08	2.14	0.64
<i>Roseovarius nubinhibins</i> ISM	6.0E+08	3.05	0.61
<i>Roseovarius nubinhibins</i> ISM	8.0E+08	3.80	0.57
<i>Roseovarius nubinhibins</i> ISM	1.0E+09	2.92	0.35
<i>Sulfitobacter</i> sp. EE-36	1.8E+08	3.95	2.71
<i>Sulfitobacter</i> sp. EE-36	3.5E+08	3.41	1.17
<i>Sulfitobacter</i> sp. EE-36	5.3E+08	2.04	0.47
<i>Sulfitobacter</i> sp. EE-36	7.0E+08	2.17	0.37
<i>Sulfitobacter</i> sp. EE-36	8.8E+08	2.80	0.38
<i>Sulfitobacter</i> sp. EE-36	7.0E+08	4.87	0.83
<i>Sulfitobacter</i> sp. EE-36	1.4E+09	4.32	0.37
<i>Sulfitobacter</i> sp. EE-36	2.1E+09	4.17	0.24
<i>Sulfitobacter</i> sp. EE-36	2.8E+09	3.65	0.16
<i>Sulfitobacter</i> sp. EE-36	3.5E+09	3.45	0.12