Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Clostridioides dificile	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.309±0.056	0.588±0.085	0.09	7.363	47.762	0.125±0.01	7.997	23.992	0.179
Clostridioides dificile	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.351±0.086	0.625±0.114	0.143	5.327	30.862	0.155±0.012	6.469	19.406	0.206
Clostridioides dificile	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.368±0.058	0.682±0.072	0.101	4.332	21.69	0.183±0.01	5.468	16.405	0.183
Clostridioides dificile	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.298±0.061	0.707±0.095	0.111	5.547	26.256	0.156±0.009	6.401	19.202	0.165
Clostridioides dificile	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.517±0.104	0.543±0.095	0.165	3.367	25.453	0.19±0.017	5.251	15.752	0.296
Clostridioides dificile	slurry	thick	2 $gO_2/m^3/h$	Aeration	0.635±0.142	0.524±0.106	0.223	2.378	19.344	0.225±0.021	4.446	13.338	0.367
Clostridioides dificile	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.548±0.065	0.491±0.057	0.1	3.397	31.756	0.18±0.017	5.551	16.654	0.304
Clostridioides dificile	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.504±0.084	0.585±0.078	0.138	3.225	21.057	0.203±0.016	4.938	14.813	0.293
Clostridioides dificile	slurry	thick	3 $gO_2/m^3/h$	Aeration	0.617±0.072	0.551±0.055	0.114	2.403	17.66	0.231±0.018	4.338	13.014	0.329
Clostridioides dificile	slurry	thin	1 $gO_2/m^3/h$	RCI	1.355±0.245	0.319±0.09	0.318	0.385	12.102	0.312±0.04	3.209	9.627	0.716
Clostridioides dificile	slurry	medium	1 $gO_2/m^3/h$	RCI	0.768±0.175	0.621±0.106	0.289	1.528	8.959	0.335±0.025	2.986	8.957	0.441
Clostridioides dificile	slurry	thick	1 $gO_2/m^3/h$	RCI	1.62±0.25	0.314±0.077	0.324	0.215	7.128	0.367±0.048	2.725	8.174	0.864
Clostridioides dificile	slurry	thin	2 $gO_2/m^3/h$	RCI	1.361±0.377	0.344±0.137	0.498	0.408	9.921	0.332±0.043	3.012	9.035	0.777
Clostridioides dificile	slurry	medium	2 $gO_2/m^3/h$	RCI	0.093±0.058	1.453±0.267	0.294	5.117	10.899	0.258±0.022	3.883	11.649	0.389
Clostridioides dificile	slurry	thick	2 $gO_2/m^3/h$	RCI	0.797±0.214	0.664±0.124	0.368	1.406	7.353	0.382±0.027	2.619	7.857	0.481
Clostridioides dificile	slurry	thin	3 $gO_2/m^3/h$	RCI	0.875±0.278	0.549±0.15	0.43	1.274	9.431	0.328±0.031	3.051	9.152	0.558
Clostridioides dificile	slurry	medium	3 $gO_2/m^3/h$	RCI	1.089±0.262	0.541±0.114	0.402	0.854	6.51	0.4±0.034	2.497	7.492	0.615
Clostridioides dificile	slurry	thick	3 $gO_2/m^3/h$	RCI	0.923±0.286	0.626±0.144	0.475	1.137	6.582	0.407±0.033	2.457	7.372	0.595
Aspergillus spp.	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.48±0.058	0.564±0.057	0.093	3.677	25.781	0.184±0.014	5.424	16.272	0.258
Aspergillus spp.	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.268±0.111	0.853±0.187	0.236	4.67	16.918	0.194±0.014	5.15	15.45	0.243
Aspergillus spp.	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.657±0.098	0.513±0.071	0.153	2.263	19.235	0.227±0.019	4.399	13.197	0.348
Aspergillus spp.	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.389±0.061	0.689±0.072	0.109	3.937	19.377	0.196±0.011	5.1	15.299	0.205
Aspergillus spp.	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.179±0.073	1.057±0.18	0.201	5.099	14.411	0.203±0.011	4.927	14.782	0.203
Aspergillus spp.	slurry	thick	2 $gO_2/m^3/h$	Aeration	0.467±0.151	0.691±0.149	0.27	3.015	14.8	0.237±0.018	4.227	12.682	0.323
Aspergillus spp.	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.362±0.081	0.72±0.102	0.148	4.097	18.848	0.196±0.011	5.111	15.333	0.201
Aspergillus spp.	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.485±0.132	0.671±0.126	0.231	2.939	15.099	0.235±0.018	4.254	12.761	0.322
Aspergillus spp.	slurry	thick	3 $gO_2/m^3/h$	Aeration	0.431±0.106	0.745±0.112	0.2	3.093	13.524	0.246±0.014	4.067	12.202	0.251
Aspergillus spp.	slurry	thin	1 $gO_2/m^3/h$	RCI	0.676±0.226	0.491±0.16	0.333	2.221	20.84	0.224±0.024	4.466	13.397	0.434

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Aspergillus spp.	slurry	medium	1 $gO_2/m^3/h$	RCI	1.597±0.166	0.257±0.053	0.207	0.161	11.678	0.321±0.046	3.117	9.352	0.823
Aspergillus spp.	slurry	thick	1 $gO_2/m^3/h$	RCI	0.701±0.209	0.551±0.141	0.324	1.908	14.034	0.263±0.025	3.805	11.416	0.445
Aspergillus spp.	slurry	thin	2 $gO_2/m^3/h$	RCI	1.105±0.086	0.382±0.038	0.117	0.77	13.634	0.288±0.033	3.474	10.422	0.585
Aspergillus spp.	slurry	medium	2 $gO_2/m^3/h$	RCI	1.381±0.243	0.339±0.087	0.32	0.385	9.86	0.331±0.041	3.02	9.061	0.73
Aspergillus spp.	slurry	thick	2 $gO_2/m^3/h$	RCI	1.421±0.232	0.366±0.08	0.31	0.383	7.718	0.36±0.042	2.78	8.341	0.751
Aspergillus spp.	slurry	thin	3 $gO_2/m^3/h$	RCI	1.02±0.235	0.441±0.111	0.333	0.956	11.538	0.304±0.032	3.294	9.882	0.566
Aspergillus spp.	slurry	medium	3 $gO_2/m^3/h$	RCI	1.269±0.224	0.388±0.086	0.305	0.542	9.175	0.337±0.038	2.966	8.899	0.673
Aspergillus spp.	slurry	thick	3 $gO_2/m^3/h$	RCI	1.474±0.372	0.341±0.125	0.49	0.321	8.026	0.357±0.045	2.8	8.401	0.813
Enterococcus spp.	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.84±0.143	0.411±0.083	0.215	1.526	22.075	0.232±0.029	4.313	12.94	0.512
Enterococcus spp.	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.414±0.162	0.737±0.179	0.303	3.313	14.721	0.232±0.018	4.31	12.93	0.329
Enterococcus spp.	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.672±0.109	0.609±0.076	0.181	1.921	11.682	0.284±0.021	3.518	10.555	0.38
Enterococcus spp.	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.569±0.087	0.585±0.072	0.143	2.621	17.162	0.229±0.017	4.369	13.108	0.311
Enterococcus spp.	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.46±0.102	0.719±0.102	0.187	2.948	13.581	0.248±0.014	4.035	12.104	0.251
Enterococcus spp.	slurry	thick	2 $gO_2/m^3/h$	Aeration	0.389±0.148	0.861±0.171	0.317	2.996	10.734	0.286±0.018	3.497	10.492	0.328
Enterococcus spp.	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.141±0.05	1.181±0.156	0.165	5.27	13.365	0.21±0.01	4.754	14.261	0.181
Enterococcus spp.	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.492±0.042	0.728±0.039	0.077	2.65	11.992	0.27±0.012	3.703	11.109	0.211
Enterococcus spp.	slurry	thick	3 $gO_2/m^3/h$	Aeration	0.295±0.129	1.001±0.195	0.331	3.387	10.147	0.296±0.019	3.383	10.148	0.331
Enterococcus spp.	slurry	thin	1 $gO_2/m^3/h$	RCI	1.533±0.37	0.446±0.116	0.525	0.384	4.5	0.46±0.05	2.174	6.521	0.895
Enterococcus spp.	slurry	medium	1 $gO_2/m^3/h$	RCI	0.778±0.293	0.797±0.171	0.582	1.37	5.438	0.497±0.035	2.011	6.033	0.622
Enterococcus spp.	slurry	thick	1 $gO_2/m^3/h$	RCI	0.788±0.379	0.807±0.218	0.762	1.343	5.238	0.515±0.044	1.94	5.821	0.789
Enterococcus spp.	slurry	thin	2 $gO_2/m^3/h$	RCI	0.918±0.212	0.715±0.106	0.385	1.127	5.237	0.491±0.028	2.037	6.112	0.509
Enterococcus spp.	slurry	medium	2 $gO_2/m^3/h$	RCI	0.367±0.214	1.167±0.256	0.692	2.362	6.056	0.533±0.04	1.878	5.634	0.711
Enterococcus spp.	slurry	thick	2 $gO_2/m^3/h$	RCI	0.616±0.272	0.972±0.197	0.671	1.645	5.09	0.58±0.038	1.725	5.174	0.672
Enterococcus spp.	slurry	thin	3 $gO_2/m^3/h$	RCI	0.567±0.27	0.952±0.213	0.649	1.816	5.757	0.51±0.036	1.962	5.887	0.651
Enterococcus spp.	slurry	medium	3 $gO_2/m^3/h$	RCI	0.574±0.209	1.003±0.162	0.537	1.739	5.197	0.578±0.03	1.729	5.186	0.537
Enterococcus spp.	slurry	thick	3 $gO_2/m^3/h$	RCI	0.488±0.103	1.092±0.093	0.299	1.93	5.278	0.599±0.018	1.67	5.011	0.321
Salmonella Senftenberg	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.493±0.098	0.637±0.092	0.166	3.038	17.063	0.222±0.015	4.501	13.503	0.268
Salmonella Senftenberg	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.298±0.143	0.892±0.215	0.318	3.883	13.309	0.235±0.018	4.259	12.778	0.322

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Salmonella Senftenberg	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.719±0.117	0.614±0.076	0.195	1.71	10.234	0.308±0.022	3.243	9.729	0.386
Salmonella Senftenberg	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.431±0.053	0.721±0.056	0.097	3.216	14.766	0.233±0.011	4.294	12.882	0.201
Salmonella Senftenberg	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.798±0.172	0.544±0.102	0.273	1.513	11.39	0.293±0.029	3.413	10.239	0.512
Salmonella Senftenberg	slurry	thick	2 $gO_2/m^3/h$	Aeration	1.102±0.189	0.501±0.082	0.293	0.824	7.365	0.371±0.034	2.692	8.076	0.604
Salmonella Senftenberg	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.751±0.135	0.557±0.085	0.216	1.671	11.997	0.285±0.024	3.511	10.532	0.425
Salmonella Senftenberg	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.632±0.212	0.629±0.156	0.357	2.074	11.899	0.28±0.026	3.573	10.718	0.456
Salmonella Senftenberg	slurry	thick	3 $gO_2/m^3/h$	Aeration	0.292±0.089	1.069±0.135	0.25	3.163	8.843	0.34±0.014	2.938	8.815	0.255
Salmonella Senftenberg	slurry	thin	1 $gO_2/m^3/h$	RCI	1.198±0.288	0.457±0.116	0.413	0.674	7.453	0.369±0.038	2.713	8.139	0.678
Salmonella Senftenberg	slurry	medium	1 $gO_2/m^3/h$	RCI	1.374±0.491	0.432±0.173	0.691	0.48	6.089	0.403±0.05	2.478	7.435	0.885
Salmonella Senftenberg	slurry	thick	1 $gO_2/m^3/h$	RCI	2.018±0.27	0.31±0.067	0.349	0.104	3.595	0.455±0.058	2.199	6.596	1.032
Salmonella Senftenberg	slurry	thin	2 $gO_2/m^3/h$	RCI	0.937±0.249	0.575±0.125	0.395	1.12	7.555	0.371±0.031	2.697	8.09	0.557
Salmonella Senftenberg	slurry	medium	2 $gO_2/m^3/h$	RCI	1.053±0.33	0.55±0.148	0.51	0.91	6.711	0.395±0.037	2.53	7.589	0.663
Salmonella Senftenberg	slurry	thick	2 $gO_2/m^3/h$	RCI	0.851±0.333	0.669±0.181	0.577	1.272	6.564	0.413±0.037	2.423	7.27	0.653
Salmonella Senftenberg	slurry	thin	3 $gO_2/m^3/h$	RCI	0.81±0.307	0.701±0.174	0.548	1.35	6.469	0.421±0.034	2.378	7.133	0.614
Salmonella Senftenberg	slurry	medium	3 $gO_2/m^3/h$	RCI	0.876±0.214	0.621±0.114	0.354	1.238	7.252	0.382±0.03	2.62	7.861	0.529
Salmonella Senftenberg	slurry	thick	3 $gO_2/m^3/h$	RCI	0.817±0.195	0.742±0.109	0.365	1.313	5.771	0.463±0.026	2.16	6.481	0.472
Escherichia coli	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.557±0.099	0.628±0.082	0.166	2.536	14.589	0.247±0.016	4.054	12.163	0.29
Escherichia coli	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.525±0.15	0.731±0.131	0.278	2.416	10.855	0.29±0.019	3.443	10.328	0.334
Escherichia coli	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.896±0.146	0.558±0.076	0.233	1.218	8.727	0.341±0.027	2.935	8.806	0.476
Escherichia coli	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.463±0.119	0.798±0.117	0.238	2.627	10.408	0.296±0.015	3.375	10.125	0.277
Escherichia coli	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.644±0.142	0.665±0.102	0.248	1.938	10.105	0.308±0.022	3.247	9.74	0.392
Escherichia coli	slurry	thick	2 $gO_2/m^3/h$	Aeration	0.472±0.104	0.88±0.099	0.228	2.345	8.17	0.362±0.014	2.76	8.281	0.249
Escherichia coli	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.167±0.034	1.249±0.09	0.126	4.199	10.121	0.291±0.011	3.44	10.32	0.192
Escherichia coli	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.218±0.075	1.163±0.151	0.241	3.701	9.517	0.314±0.015	3.183	9.55	0.261
Escherichia coli	slurry	thick	3 $gO_2/m^3/h$	Aeration	0.688±0.146	0.762±0.097	0.281	1.634	6.916	0.407±0.021	2.459	7.377	0.373
Escherichia coli	slurry	thin	1 $gO_2/m^3/h$	RCI	1.574±0.332	0.475±0.101	0.482	0.385	3.894	0.502±0.048	1.991	5.973	0.856
Escherichia coli	slurry	medium	1 $gO_2/m^3/h$	RCI	1.151±0.189	0.656±0.076	0.322	0.807	4.307	0.541±0.033	1.849	5.548	0.584
Escherichia coli	slurry	thick	1 $gO_2/m^3/h$	RCI	0.955±0.249	0.783±0.119	0.487	1.061	4.313	0.592±0.032	1.689	5.067	0.578

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Escherichia coli	slurry	thin	2 $gO_2/m^3/h$	RCI	0.497±0.164	0.992±0.147	0.416	2.023	6.124	0.488±0.023	2.048	6.145	0.416
Escherichia coli	slurry	medium	2 $gO_2/m^3/h$	RCI	1.09±0.274	0.768±0.115	0.527	0.894	3.738	0.653±0.036	1.531	4.593	0.652
Escherichia coli	slurry	thick	2 $gO_2/m^3/h$	RCI	1.331±0.271	0.683±0.094	0.476	0.658	3.286	0.663±0.04	1.507	4.522	0.723
Escherichia coli	slurry	thin	3 $gO_2/m^3/h$	RCI	0.641±0.123	0.928±0.086	0.286	1.614	5.274	0.547±0.017	1.83	5.489	0.301
Escherichia coli	slurry	medium	3 $gO_2/m^3/h$	RCI	0.78±0.129	0.912±0.074	0.295	1.313	4.38	0.642±0.018	1.558	4.675	0.323
Escherichia coli	slurry	thick	3 $gO_2/m^3/h$	RCI	1.333±0.23	0.711±0.079	0.416	0.668	3.132	0.705±0.039	1.419	4.258	0.706
Listeria monocytogenes	slurry	thin	1 $gO_2/m^3/h$	Aeration	0.661±0.095	0.626±0.067	0.16	1.939	11.205	0.29±0.02	3.444	10.332	0.357
Listeria monocytogenes	slurry	medium	1 $gO_2/m^3/h$	Aeration	0.666±0.048	0.688±0.033	0.085	1.805	8.913	0.335±0.016	2.983	8.948	0.293
Listeria monocytogenes	slurry	thick	1 $gO_2/m^3/h$	Aeration	0.642±0.133	0.724±0.095	0.246	1.844	8.401	0.35±0.02	2.858	8.573	0.351
Listeria monocytogenes	slurry	thin	2 $gO_2/m^3/h$	Aeration	0.252±0.066	1.088±0.116	0.192	3.542	9.72	0.307±0.011	3.254	9.761	0.201
Listeria monocytogenes	slurry	medium	2 $gO_2/m^3/h$	Aeration	0.359±0.076	1.024±0.093	0.2	2.719	7.951	0.379±0.011	2.641	7.923	0.201
Listeria monocytogenes	slurry	thick	2 $gO_2/m^3/h$	Aeration	0.838±0.087	0.711±0.047	0.158	1.281	6.005	0.444±0.021	2.253	6.76	0.382
Listeria monocytogenes	slurry	thin	3 $gO_2/m^3/h$	Aeration	0.49±0.09	0.822±0.083	0.185	2.383	9.074	0.33±0.013	3.027	9.082	0.239
Listeria monocytogenes	slurry	medium	3 $gO_2/m^3/h$	Aeration	0.983±0.204	0.659±0.096	0.354	1.026	5.431	0.464±0.032	2.153	6.459	0.576
Listeria monocytogenes	slurry	thick	3 $gO_2/m^3/h$	Aeration	1.191±0.155	0.6±0.061	0.255	0.748	4.665	0.494±0.036	2.022	6.067	0.639
Listeria monocytogenes	slurry	thin	1 $gO_2/m^3/h$	RCI	1.161±0.327	0.508±0.134	0.487	0.745	6.488	0.398±0.039	2.513	7.54	0.7
Listeria monocytogenes	slurry	medium	1 $gO_2/m^3/h$	RCI	1.184±0.287	0.549±0.114	0.444	0.735	5.437	0.443±0.038	2.258	6.775	0.677
Listeria monocytogenes	slurry	thick	1 $gO_2/m^3/h$	RCI	0.885±0.304	0.692±0.158	0.539	1.194	5.842	0.45±0.035	2.222	6.665	0.622
Listeria monocytogenes	slurry	thin	2 $gO_2/m^3/h$	RCI	0.839±0.322	0.688±0.177	0.568	1.29	6.365	0.424±0.036	2.36	7.08	0.64
Listeria monocytogenes	slurry	medium	2 $gO_2/m^3/h$	RCI	0.511±0.179	0.954±0.157	0.431	2.021	6.398	0.461±0.024	2.169	6.506	0.433
Listeria monocytogenes	slurry	thick	2 $gO_2/m^3/h$	RCI	0.655±0.287	0.828±0.198	0.591	1.667	6.277	0.449±0.034	2.229	6.687	0.61
Listeria monocytogenes	slurry	thin	3 $gO_2/m^3/h$	RCI	0.5±0.21	0.925±0.188	0.486	2.115	6.94	0.423±0.027	2.362	7.087	0.49
Listeria monocytogenes	slurry	medium	3 $gO_2/m^3/h$	RCI	0.412±0.152	1.055±0.163	0.419	2.319	6.57	0.465±0.024	2.149	6.448	0.422
Listeria monocytogenes	slurry	thick	3 $gO_2/m^3/h$	RCI	1.069±0.253	0.693±0.109	0.449	0.908	4.427	0.545±0.034	1.834	5.501	0.605
Clostridioides dificile	wastewater	thin	1 $gO_2/m^3/h$	Aeration	0.309±0.093	0.691±0.138	0.164	5.473	26.828	0.157±0.011	6.379	19.138	0.201
Clostridioides dificile	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.325±0.075	0.675±0.106	0.13	5.299	27.01	0.159±0.011	6.303	18.91	0.194
Clostridioides dificile	wastewater	thick	1 $gO_2/m^3/h$	Aeration	0.227±0.106	0.93±0.21	0.248	4.926	16.062	0.194±0.014	5.147	15.44	0.25
Clostridioides dificile	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.578±0.067	0.516±0.055	0.105	2.891	24.313	0.2±0.017	4.988	14.965	0.311

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Clostridioides dificile	wastewater	medium	2 $gO_2/m^3/h$	Aeration	0.141±0.066	1.071±0.207	0.187	6.211	17.327	0.166±0.011	6.038	18.113	0.188
Clostridioides dificile	wastewater	thick	2 $gO_2/m^3/h$	Aeration	0.822±0.141	0.468±0.082	0.215	1.519	15.865	0.257±0.028	3.896	11.688	0.492
Clostridioides dificile	wastewater	thin	3 $gO_2/m^3/h$	Aeration	0.488±0.123	0.541±0.119	0.195	3.769	28.741	0.178±0.018	5.617	16.85	0.323
Clostridioides dificile	wastewater	medium	3 $gO_2/m^3/h$	Aeration	0.731±0.089	0.465±0.058	0.135	1.958	20.743	0.227±0.024	4.41	13.23	0.421
Clostridioides dificile	wastewater	thick	3 $gO_2/m^3/h$	Aeration	0.578±0.144	0.604±0.116	0.238	2.476	15.27	0.242±0.022	4.137	12.41	0.385
Clostridioides dificile	wastewater	thin	1 $gO_2/m^3/h$	RCI	1.055±0.179	0.476±0.081	0.26	0.894	8.999	0.337±0.032	2.972	8.914	0.568
Clostridioides dificile	wastewater	medium	1 $gO_2/m^3/h$	RCI	1.007±0.301	0.551±0.141	0.466	0.987	7.242	0.379±0.035	2.64	7.92	0.627
Clostridioides dificile	wastewater	thick	1 $gO_2/m^3/h$	RCI	0.86±0.196	0.683±0.105	0.344	1.248	6.229	0.429±0.027	2.332	6.996	0.479
Clostridioides dificile	wastewater	thin	2 $gO_2/m^3/h$	RCI	0.501±0.17	0.81±0.154	0.342	2.345	9.106	0.329±0.021	3.036	9.108	0.381
Clostridioides dificile	wastewater	medium	2 $gO_2/m^3/h$	RCI	0.839±0.232	0.676±0.128	0.405	1.295	6.578	0.413±0.029	2.424	7.272	0.514
Clostridioides dificile	wastewater	thick	2 $gO_2/m^3/h$	RCI	0.647±0.199	0.851±0.139	0.42	1.668	6.07	0.465±0.025	2.15	6.449	0.447
Clostridioides dificile	wastewater	thin	3 $gO_2/m^3/h$	RCI	1.135±0.293	0.524±0.122	0.443	0.786	6.383	0.403±0.037	2.481	7.443	0.655
Clostridioides dificile	wastewater	medium	3 $gO_2/m^3/h$	RCI	0.543±0.271	0.868±0.225	0.586	2.019	7.157	0.406±0.033	2.463	7.388	0.595
Clostridioides dificile	wastewater	thick	3 $gO_2/m^3/h$	RCI	0.559±0.182	0.915±0.146	0.416	1.887	6.27	0.463±0.024	2.158	6.475	0.424
Aspergillus spp.	wastewater	thin	1 $gO_2/m^3/h$	Aeration	0.188±0.062	0.979±0.148	0.155	5.525	16.967	0.179±0.009	5.584	16.752	0.155
Aspergillus spp.	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.383±0.041	0.727±0.05	0.077	3.749	16.981	0.21±0.01	4.77	14.311	0.175
Aspergillus spp.	wastewater	thick	1 $gO_2/m^3/h$	Aeration	0.601±0.087	0.609±0.067	0.145	2.306	13.994	0.255±0.018	3.927	11.782	0.329
Aspergillus spp.	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.722±0.149	0.498±0.098	0.23	1.924	17.449	0.242±0.023	4.136	12.409	0.412
Aspergillus spp.	wastewater	medium	2 $gO_2/m^3/h$	Aeration	0.734±0.271	0.507±0.175	0.42	1.842	16.056	0.251±0.03	3.988	11.963	0.539
Aspergillus spp.	wastewater	thick	2 $gO_2/m^3/h$	Aeration	0.735±0.12	0.568±0.077	0.194	1.722	11.931	0.285±0.023	3.511	10.532	0.403
Aspergillus spp.	wastewater	thin	3 $gO_2/m^3/h$	Aeration	0.887±0.169	0.425±0.092	0.254	1.326	17.573	0.253±0.03	3.955	11.866	0.536
Aspergillus spp.	wastewater	medium	3 $gO_2/m^3/h$	Aeration	0.676±0.064	0.587±0.044	0.105	1.948	12.664	0.273±0.019	3.66	10.98	0.341
Aspergillus spp.	wastewater	thick	3 $gO_2/m^3/h$	Aeration	1.061±0.23	0.466±0.104	0.35	0.881	9.286	0.329±0.039	3.041	9.124	0.694
Aspergillus spp.	wastewater	thin	1 $gO_2/m^3/h$	RCI	1.713±0.144	0.2±0.044	0.174	0.068	16.402	0.307±0.048	3.256	9.767	0.853
Aspergillus spp.	wastewater	medium	1 $gO_2/m^3/h$	RCI	1.46±0.36	0.32±0.123	0.468	0.306	9.478	0.337±0.046	2.966	8.898	0.827
Aspergillus spp.	wastewater	thick	1 $gO_2/m^3/h$	RCI	1.372±0.261	0.378±0.093	0.353	0.433	7.917	0.357±0.041	2.801	8.402	0.736
Aspergillus spp.	wastewater	thin	2 $gO_2/m^3/h$	RCI	0.543±0.205	0.701±0.173	0.366	2.388	11.457	0.282±0.023	3.549	10.647	0.41
Aspergillus spp.	wastewater	medium	2 $gO_2/m^3/h$	RCI	0.71±0.243	0.615±0.16	0.399	1.748	10.443	0.306±0.027	3.271	9.813	0.482

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Aspergillus spp.	wastewater	thick	2 $gO_2/m^3/h$	RCI	1.067±0.345	0.517±0.153	0.519	0.883	7.378	0.374±0.038	2.676	8.027	0.679
Aspergillus spp.	wastewater	thin	3 $gO_2/m^3/h$	RCI	1.339±0.268	0.347±0.099	0.355	0.431	10.249	0.327±0.04	3.057	9.171	0.708
Aspergillus spp.	wastewater	medium	3 $gO_2/m^3/h$	RCI	1.268±0.187	0.412±0.072	0.259	0.562	8.092	0.353±0.037	2.829	8.487	0.665
Aspergillus spp.	wastewater	thick	3 $gO_2/m^3/h$	RCI	1.462±0.089	0.43±0.03	0.125	0.413	5.332	0.421±0.042	2.373	7.118	0.755
Enterococcus spp.	wastewater	thin	1 $gO_2/m^3/h$	Aeration	0.188±0.062	0.979±0.148	0.155	5.525	16.967	0.179±0.009	5.584	16.752	0.155
Enterococcus spp.	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.723±0.131	0.542±0.085	0.207	1.822	13.839	0.265±0.024	3.778	11.335	0.42
Enterococcus spp.	wastewater	thick	1 $gO_2/m^3/h$	Aeration	0.906±0.203	0.484±0.107	0.311	1.225	11.864	0.293±0.032	3.412	10.236	0.565
Enterococcus spp.	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.539±0.083	0.66±0.071	0.144	2.553	13.479	0.255±0.015	3.916	11.748	0.271
Enterococcus spp.	wastewater	medium	2 $gO_2/m^3/h$	Aeration	0.621±0.127	0.646±0.095	0.218	2.09	11.434	0.286±0.019	3.498	10.495	0.343
Enterococcus spp.	wastewater	thick	2 $gO_2/m^3/h$	Aeration	0.82±0.148	0.552±0.085	0.237	1.433	10.471	0.307±0.027	3.255	9.766	0.477
Enterococcus spp.	wastewater	thin	3 $gO_2/m^3/h$	Aeration	0.873±0.147	0.466±0.081	0.224	1.34	14.176	0.271±0.028	3.685	11.054	0.509
Enterococcus spp.	wastewater	medium	3 $gO_2/m^3/h$	Aeration	0.514±0.154	0.75±0.137	0.293	2.426	10.489	0.297±0.019	3.369	10.108	0.343
Enterococcus spp.	wastewater	thick	3 $gO_2/m^3/h$	Aeration	1.139±0.188	0.461±0.079	0.285	0.754	8.153	0.35±0.039	2.86	8.579	0.695
Enterococcus spp.	wastewater	thin	1 $gO_2/m^3/h$	RCI	0.877±0.229	0.706±0.12	0.411	1.205	5.714	0.459±0.029	2.176	6.529	0.519
Enterococcus spp.	wastewater	medium	1 $gO_2/m^3/h$	RCI	0.99±0.166	0.701±0.077	0.297	1.014	4.857	0.514±0.027	1.947	5.842	0.485
Enterococcus spp.	wastewater	thick	1 $gO_2/m^3/h$	RCI	0.737±0.298	0.852±0.183	0.632	1.431	5.192	0.532±0.036	1.88	5.64	0.652
Enterococcus spp.	wastewater	thin	2 $gO_2/m^3/h$	RCI	0.948±0.366	0.738±0.177	0.682	1.075	4.763	0.533±0.043	1.878	5.633	0.767
Enterococcus spp.	wastewater	medium	2 $gO_2/m^3/h$	RCI	0.868±0.226	0.83±0.118	0.465	1.186	4.458	0.596±0.029	1.678	5.034	0.52
Enterococcus spp.	wastewater	thick	2 $gO_2/m^3/h$	RCI	0.839±0.251	0.898±0.134	0.563	1.215	4.13	0.67±0.033	1.493	4.478	0.584
Enterococcus spp.	wastewater	thin	3 $gO_2/m^3/h$	RCI	0.528±0.225	1.023±0.189	0.592	1.866	5.459	0.556±0.033	1.797	5.392	0.593
Enterococcus spp.	wastewater	medium	3 $gO_2/m^3/h$	RCI	0.728±0.209	0.958±0.128	0.506	1.393	4.386	0.663±0.029	1.508	4.525	0.51
Enterococcus spp.	wastewater	thick	3 $gO_2/m^3/h$	RCI	0.789±0.253	0.948±0.143	0.604	1.285	4.092	0.703±0.034	1.422	4.267	0.61
Salmonella Senftenberg	wastewater	thin	1 $gO_2/m^3/h$	Aeration	0.306±0.098	0.856±0.144	0.208	3.986	14.39	0.223±0.012	4.491	13.473	0.221
Salmonella Senftenberg	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.518±0.122	0.718±0.108	0.225	2.496	11.522	0.279±0.017	3.586	10.757	0.3
Salmonella Senftenberg	wastewater	thick	1 $gO_2/m^3/h$	Aeration	0.954±0.17	0.525±0.084	0.266	1.094	8.872	0.337±0.031	2.969	8.907	0.558
Salmonella Senftenberg	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.727±0.112	0.593±0.072	0.184	1.711	10.904	0.298±0.022	3.358	10.073	0.395
Salmonella Senftenberg	wastewater	medium	2 $gO_2/m^3/h$	Aeration	0.438±0.097	0.848±0.1	0.205	2.649	9.675	0.313±0.013	3.196	9.587	0.231
Salmonella Senftenberg	wastewater	thick	2 $gO_2/m^3/h$	Aeration	0.963±0.148	0.536±0.072	0.233	1.072	8.329	0.348±0.031	2.875	8.624	0.557

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Salmonella Senftenberg	wastewater	thin	3 $gO_2/m^3/h$	Aeration	0.572±0.11	0.63±0.089	0.185	2.431	13.917	0.253±0.019	3.953	11.858	0.336
Salmonella Senftenberg	wastewater	medium	3 $gO_2/m^3/h$	Aeration	0.919±0.138	0.585±0.07	0.225	1.154	7.54	0.37±0.028	2.703	8.109	0.508
Salmonella Senftenberg	wastewater	thick	3 $gO_2/m^3/h$	Aeration	0.457±0.132	0.917±0.13	0.304	2.348	7.783	0.38±0.017	2.63	7.89	0.311
Salmonella Senftenberg	wastewater	thin	1 $gO_2/m^3/h$	RCI	0.823±0.32	0.627±0.181	0.532	1.364	7.862	0.364±0.034	2.744	8.232	0.614
Salmonella Senftenberg	wastewater	medium	1 $gO_2/m^3/h$	RCI	0.824±0.445	0.675±0.249	0.775	1.331	6.774	0.405±0.046	2.468	7.403	0.815
Salmonella Senftenberg	wastewater	thick	1 $gO_2/m^3/h$	RCI	0.67±0.196	0.822±0.132	0.4	1.629	6.204	0.452±0.025	2.214	6.641	0.439
Salmonella Senftenberg	wastewater	thin	2 $gO_2/m^3/h$	RCI	1.039±0.348	0.588±0.157	0.557	0.937	6.068	0.423±0.039	2.364	7.093	0.692
Salmonella Senftenberg	wastewater	medium	2 $gO_2/m^3/h$	RCI	1.014±0.217	0.642±0.099	0.366	0.979	5.422	0.462±0.031	2.163	6.488	0.552
Salmonella Senftenberg	wastewater	thick	2 $gO_2/m^3/h$	RCI	0.599±0.25	0.946±0.187	0.597	1.72	5.491	0.532±0.034	1.881	5.644	0.599
Salmonella Senftenberg	wastewater	thin	3 $gO_2/m^3/h$	RCI	0.354±0.209	1.062±0.261	0.582	2.655	7.469	0.407±0.033	2.457	7.37	0.583
Salmonella Senftenberg	wastewater	medium	3 $gO_2/m^3/h$	RCI	0.598±0.259	0.911±0.194	0.59	1.76	5.878	0.491±0.033	2.038	6.114	0.596
Salmonella Senftenberg	wastewater	thick	3 $gO_2/m^3/h$	RCI	0.427±0.207	1.145±0.213	0.648	2.102	5.489	0.59±0.037	1.695	5.085	0.668
Escherichia coli	wastewater	thin	1 $gO_2/m^3/h$	Aeration	0.287±0.138	0.946±0.215	0.329	3.737	11.939	0.255±0.018	3.923	11.77	0.331
Escherichia coli	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.437±0.107	0.848±0.111	0.227	2.655	9.692	0.312±0.014	3.201	9.602	0.253
Escherichia coli	wastewater	thick	1 $gO_2/m^3/h$	Aeration	0.985±0.1	0.56±0.048	0.16	1.027	7.293	0.376±0.029	2.663	7.988	0.522
Escherichia coli	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.936±0.135	0.548±0.068	0.214	1.129	8.386	0.347±0.029	2.88	8.639	0.519
Escherichia coli	wastewater	medium	2 $gO_2/m^3/h$	Aeration	1.065±0.135	0.555±0.06	0.216	0.892	6.455	0.401±0.033	2.493	7.48	0.595
Escherichia coli	wastewater	thick	2 $gO_2/m^3/h$	Aeration	1.115±0.15	0.547±0.063	0.238	0.82	6.1	0.413±0.035	2.423	7.268	0.629
Escherichia coli	wastewater	thin	3 $gO_2/m^3/h$	Aeration	1.237±0.18	0.471±0.07	0.274	0.637	6.568	0.388±0.04	2.574	7.723	0.712
Escherichia coli	wastewater	medium	3 $gO_2/m^3/h$	Aeration	0.882±0.168	0.645±0.089	0.288	1.215	6.668	0.404±0.029	2.476	7.429	0.514
Escherichia coli	wastewater	thick	3 $gO_2/m^3/h$	Aeration	0.905±0.231	0.701±0.117	0.416	1.154	5.53	0.468±0.033	2.138	6.413	0.584
Escherichia coli	wastewater	thin	1 $gO_2/m^3/h$	RCI	0.779±0.279	0.794±0.163	0.551	1.37	5.468	0.494±0.033	2.023	6.068	0.593
Escherichia coli	wastewater	medium	1 $gO_2/m^3/h$	RCI	0.792±0.21	0.871±0.119	0.455	1.308	4.617	0.595±0.027	1.681	5.042	0.487
Escherichia coli	wastewater	thick	1 $gO_2/m^3/h$	RCI	0.653±0.221	1.008±0.15	0.572	1.525	4.534	0.666±0.032	1.502	4.507	0.572
Escherichia coli	wastewater	thin	2 $gO_2/m^3/h$	RCI	0.703±0.336	0.873±0.216	0.731	1.498	5.274	0.53±0.042	1.885	5.655	0.745
Escherichia coli	wastewater	medium	2 $gO_2/m^3/h$	RCI	0.377±0.17	1.238±0.197	0.615	2.198	5.338	0.643±0.039	1.556	4.669	0.688
Escherichia coli	wastewater	thick	2 $gO_2/m^3/h$	RCI	1.065±0.254	0.839±0.108	0.529	0.927	3.435	0.746±0.034	1.34	4.021	0.61
Escherichia coli	wastewater	thin	3 $gO_2/m^3/h$	RCI	0.912±0.33	0.853±0.163	0.699	1.114	4.04	0.659±0.041	1.518	4.554	0.738

Microorganism	Conditions				Weibull model estimated parameters					First-order estimated parameters			
	Source	Density	Oxygen	Type	b ± SE	n ± SE	RMSE	t1 [days]	t3 [days]	Rate ± SE [1/days]	D1 [days]	D3 [days]	RMSE
Escherichia coli	wastewater	medium	3 $gO_2/m^3/h$	RCI	0.634±0.218	1.034±0.153	0.585	1.554	4.495	0.684±0.033	1.462	4.386	0.587
Escherichia coli	wastewater	thick	3 $gO_2/m^3/h$	RCI	1.173±0.244	0.805±0.094	0.489	0.82	3.211	0.762±0.035	1.312	3.936	0.629
Listeria monocytogenes	wastewater	thin	1 $gO_2/m^3/h$	Aeration	1.012±0.232	0.508±0.109	0.36	0.977	8.481	0.343±0.037	2.912	8.737	0.67
Listeria monocytogenes	wastewater	medium	1 $gO_2/m^3/h$	Aeration	0.743±0.155	0.681±0.096	0.275	1.546	7.755	0.369±0.024	2.714	8.141	0.425
Listeria monocytogenes	wastewater	thick	1 $gO_2/m^3/h$	Aeration	1.453±0.193	0.443±0.064	0.292	0.43	5.133	0.429±0.048	2.332	6.996	0.861
Listeria monocytogenes	wastewater	thin	2 $gO_2/m^3/h$	Aeration	0.792±0.054	0.642±0.032	0.092	1.437	7.949	0.361±0.021	2.771	8.313	0.377
Listeria monocytogenes	wastewater	medium	2 $gO_2/m^3/h$	Aeration	1.19±0.179	0.567±0.07	0.287	0.736	5.103	0.46±0.038	2.174	6.521	0.678
Listeria monocytogenes	wastewater	thick	2 $gO_2/m^3/h$	Aeration	1.174±0.157	0.561±0.063	0.252	0.751	5.325	0.448±0.036	2.232	6.697	0.646
Listeria monocytogenes	wastewater	thin	3 $gO_2/m^3/h$	Aeration	1.853±0.247	0.359±0.066	0.371	0.18	3.827	0.455±0.064	2.199	6.597	1.143
Listeria monocytogenes	wastewater	medium	3 $gO_2/m^3/h$	Aeration	1.28±0.248	0.547±0.091	0.393	0.637	4.739	0.473±0.045	2.114	6.341	0.798
Listeria monocytogenes	wastewater	thick	3 $gO_2/m^3/h$	Aeration	1.235±0.281	0.578±0.107	0.456	0.694	4.646	0.487±0.045	2.051	6.154	0.803
Listeria monocytogenes	wastewater	thin	1 $gO_2/m^3/h$	RCI	0.334±0.051	1.069±0.067	0.142	2.788	7.788	0.39±0.009	2.565	7.696	0.155
Listeria monocytogenes	wastewater	medium	1 $gO_2/m^3/h$	RCI	0.076±0.046	1.721±0.257	0.372	4.47	8.461	0.388±0.035	2.58	7.741	0.63
Listeria monocytogenes	wastewater	thick	1 $gO_2/m^3/h$	RCI	0.598±0.211	0.938±0.158	0.498	1.73	5.58	0.521±0.028	1.918	5.754	0.502
Listeria monocytogenes	wastewater	thin	2 $gO_2/m^3/h$	RCI	1.19±0.431	0.565±0.17	0.676	0.735	5.137	0.461±0.046	2.167	6.502	0.823
Listeria monocytogenes	wastewater	medium	2 $gO_2/m^3/h$	RCI	0.527±0.238	0.986±0.201	0.597	1.915	5.838	0.511±0.033	1.959	5.876	0.597
Listeria monocytogenes	wastewater	thick	2 $gO_2/m^3/h$	RCI	0.825±0.26	0.836±0.143	0.541	1.258	4.681	0.575±0.033	1.74	5.221	0.584
Listeria monocytogenes	wastewater	thin	3 $gO_2/m^3/h$	RCI	0.632±0.258	0.866±0.184	0.556	1.697	6.03	0.471±0.032	2.124	6.372	0.573
Listeria monocytogenes	wastewater	medium	3 $gO_2/m^3/h$	RCI	0.843±0.255	0.839±0.136	0.531	1.225	4.536	0.591±0.032	1.691	5.073	0.575
Listeria monocytogenes	wastewater	thick	3 $gO_2/m^3/h$	RCI	0.792±0.219	0.908±0.124	0.496	1.293	4.337	0.646±0.029	1.548	4.645	0.513