

1 **Supplementary Materials**

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Table A.1 - Complete urine composition

	Average value	Standard deviation
pH	7.9	± 0.6
Conductivity (mS/cm)	17.4	± 5.0
NO₂⁻-N (mgN/L)	0.0	± 0.3
NO₃⁻-N (mgN/L)	1.1	± 3.7
Total N (mg/L)	6682	± 1488
COD (mgO₂/L)	7003	± 2062
COD/TN ratio	1.0	± 0.3
TOC (mgC/L)	5160	± 1130
IC (mgC/L)	600	± 550
SO₄²⁻ (mg/L)	907	± 190
PO₄³⁻ (mg/L)	937	± 192
Cl⁻ (mg/L)	4380	± 481
Na⁺ (mg/L)	2382	± 244
K⁺ (mg/L)	2377	± 374
Ca²⁺ (mg/L)	155	± 36
Mg²⁺ (mg/L)	25	± 24

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4 Table A.2 – Complete values of pH, conductivity, COD and TN concentrations in the feed (urine)
5 during the 120 days of operation.

Day	pH	Conductivity (mS/cm)	COD (mgO ₂ /L)	TN (mgN/L)	COD/TN
1	7.85	17.09	8030	7006	1.15
3	8.67	13.46	8810	6100	1.44
4	8.25	21.5	10100	6100	1.66
5	8.19	22.8	10600	8900	1.19
6	8.53	23.8	11600	9300	1.25
7	7.17	17.01	7500	7200	1.04
10	7.66	15.49	6900	6300	1.10
11	7.77	16.2	6500	6400	1.02
12	7.88	16.65	6300	6300	1.00
13	7.98	15.93	7600	7200	1.06
14	7.72	18.4	6900	6100	1.13
17	8.19	17.9	7400	6500	1.14
18	8.21	19.56	6300	5900	1.07
19	8.31	18.75	6900	6500	1.06
20	8.36	18.96	7200	6100	1.18
21	8.43	18.84	6900	6700	1.03
24	7.71	17.2	4600	6500	0.71
25	7.78	14.96	6190	6100	1.01
26	7.87	15.74	7280	5900	1.23
27	7.97	17.07	6260	6700	0.93
28	8.04	17.52	7380	6500	1.14
31	7.79	19.69	11400	6500	1.75
32	7.95	18.36	8300	6100	1.36
33	8.0	17.6	11300	6500	1.74
34	6.49	12.11	4900	6100	0.80
35	6.57	12.5	5800	5700	1.02

38	7.02	13.27	6150	5900	1.04
39	7.09	12.66	6320	6050	1.04
40	7.22	15.03	6500	6000	1.08
41	7.19	17.26	6690	7700	0.87
42	7.36	17.2	7060	8050	0.88
45	7.505	17.38	6120	6100	1.00
46	7.61	17.25	6290	6900	0.91
47	7.69	17.65	6420	7700	0.83
48	7.75	17.77	6210	5000	1.24
49	7.85	17.74	6660	7100	0.94
52	8.04	10.8	6370	6500	0.98
53	7.81	17.88	5110	6300	0.81
55	7.91	9.66	5960	4700	1.27
56	7.97	9.96	6170	5900	1.05
59	8.24	10.17	5760	5700	1.01
60	8.19	10.6	5500	6100	0.90
61	8.12	10.05	5320	6100	0.87
62	8.14	17.72	6260	5200	1.20
63	8.25	17.64	6690	5100	1.31
66	8.58	16.84	5430	4200	1.29
67	8.69	18.32	6000	6100	0.98
68	8.18	18.42	6010	7200	0.83
69	8.05	16.07	6150	6143	1.00
70	8.14	16.47	5980	3100	1.93
73	8.46	17.19	5810	4300	1.35
74	8.6	19.53	5700	5000	1.14
75	8.72	19.85	4910	4300	1.14
76	8.72	20.3	5400	4000	1.35
77	8.89	20.9	-	6800	-
80	9.3	38.8	5030	7600	0.66
81	9.32	40.8	5460	7300	0.75
82	6.53	16.7	4650	8000	0.58
83	6.56	12.82	5510	8100	0.68
86	6.77	12.46	5240	7600	0.69
87	6.85	13.17	4950	8300	0.60
88	6.94	13.28	2080	7800	0.27
89	6.93	19.36	10100	8300	1.22
90	7.04	17.16	4540	9400	0.48
96	7.65	21	9770	7200	1.36
97	7.69	10.3	11100	8600	1.29
111	7.84	20.6	10900	8200	1.33
112	7.95	18.88	11200	8600	1.30
113	7.97	20.8	10800	7500	1.44
114	8.0	21.5	10500	8000	1.31
117	8.08	21.5	10500	6800	1.54
118	8.19	22.7	10600	7300	1.45
119	8.12	18.52	6420	6100	1.05
120	8.37	11.2	5590	7600	0.74

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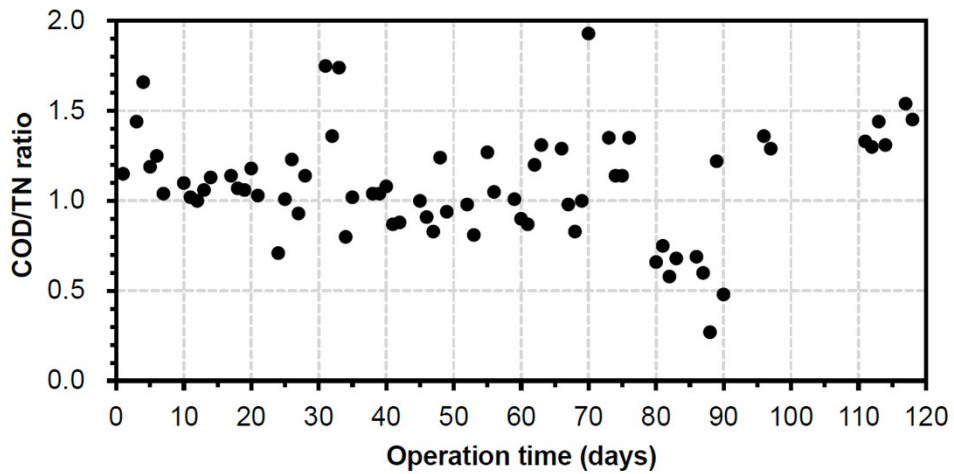
7 Table A.3 – Complete values of pH, conductivity, COD, TN, NO₂⁻ and NH₄⁺ concentrations in the
8 MBR permeate during the 120 days of operation.

Day	pH	Conductivity (mS/cm)	COD (mgO ₂ /L)	TN (mgN/L)	NO ₂ ⁻ (mgN/L)	NH ₄ ⁺ (mgN/L)
1	6.44	8.87	-	-	0	72.8
3	7.03	3.32	164	372	14.0	165.1
4	6.8	3.42	94	372	11.5	142.7
5	6.81	3.76	81	543	14.1	125.7

6	6.85	4.05	24	727	14.8	92.4
7	6.95	4.41	55	563	24.8	72.0
10	6.82	3.86	61	492	1.6	0
11	6.79	4.13	34	653	9.9	4.8
12	6.82	4.48	50	589	2.3	8.6
13	6.85	4.31	47	673	0.0	0
14	6.79	4.6	40	678	1.8	0
17	6.67	5.04	61	793	1.4	0
18	7.01	5.45	45	908	1.9	0
19	6.86	6.59	56	1000	6.9	11.2
20	6.56	6.72	59	1109	7.3	0
21	7.22	7.06	64	1218	4.9	0
24	6.66	8.06	78	1182	29.3	106.1
25	6.82	8.23	84	1109	33.5	57.2
26	6.61	7.88	86	1073	5.2	0
27	6.63	7.43	78	1314	5.0	0
28	6.6	8.21	139	1275	9.9	0
31	6.63	9.79	122	1275	25.1	11.0
32	6.45	10.8	100	1196	23.9	30.2
33	6.46	10.83	151	1275	12.8	62.6
34	6.09	10.11	106	1196	5.8	0
35	6.13	9	92	1118	2.5	10.8
38	6.44	7.77	-	1157	137.8	151.8
39	6.57	6.16	-	1186	90.7	39.2
40	6.79	7.15	-	1176	135.4	23.7
41	6.98	6.29	77	626	1.1	0
42	7.42	5.62	61	885	0.0	0
45	-	1.645	32	670	0.0	0
46	6.97	2.7	66	561	0.3	0
47	7.00	3.09	43	626	0	0
48	6.98	3.77	44	407	19.8	0
49	6.97	4.19	59	577	7.1	0
52	7.17	3.17	45	542	0	0
53	6.91	3.88	36	692	0	0
55	6.77	5.22	55	516	0	0
56	6.79	5.68	51	819	0	0
59	7.63	6.89	46	950	0	0
60	7.34	7.75	44	1017	0	0
61	6.96	8.47	54	1017	0	0.7
62	7.96	8.64	60	867	0	3
63	7.9	8.78	43	981	22.8	4.3
66	7.93	10.54	70	933	0	7.1
67	7.8	10.66	70	1356	0	0
68	7.17	11.61	116	1600	0	9.1
69	6.45	11.21	70	1365	0	35.5
70	7.01	11.72	64	775	0	0.101
73	6.95	13.1	75	1194	0	0
74	6.98	14.82	64	1389	0	0
75	6.99	14.22	57	1194	0	14.5
76	7.14	13.91	35	1212	0	15.9
77	7.01	14.72	-	2061	0	0
80	6.89	17.93	90	2303	0	32.9
81	6.89	18.56	95	2317	0	28.6
82	6.86	18.5	95	2540	0	42.5
83	6.85	17.51	89	2803	0	44.2
86	6.76	15.14	78	1886	0	39.2
	6.88	13.96	58	2060	0	28.6
87						
	6.91	14	51	1935	0	25.4
88						

89	6.94	13.54	64	2060	0	0
90	6.9	13.7	57	2084	0	38.7
96	6.94	11.28	43	1787	0	43.2
97	6.94	12.05	51	2134	0	29.4
111	6.96	9.49	49	2035	0	22.5
112	7.0	11.44	53	2257	0	36.5
113	6.84	12.2	61	1969	0	57.5
114	7.32	9.95	31	2100	0	0
117	7.32	9.95	31	1785	0	0
118	6.97	13.3	55	1916	0	0
119	6.99	13.8	72	1601	0	0
120	6.95	-	118	1995	0	0

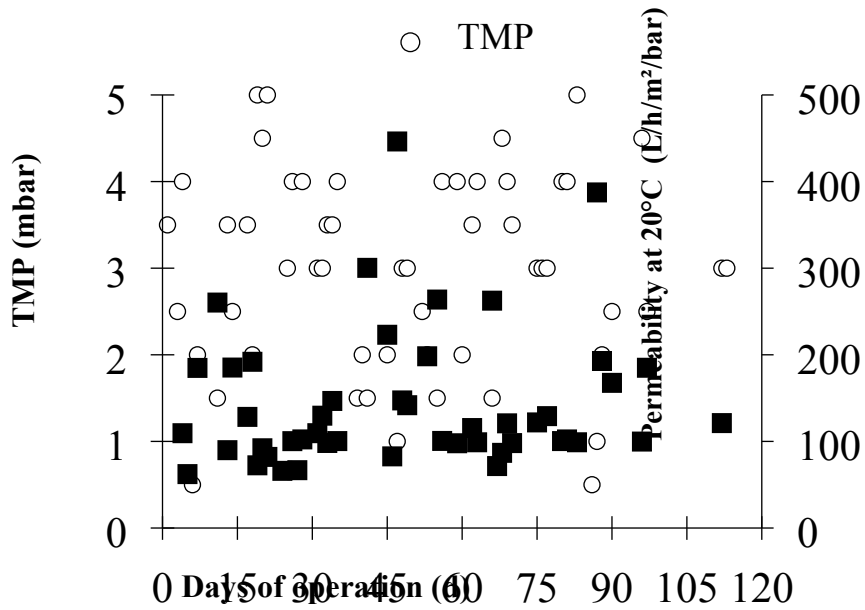
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Figure A.1 - Variations of COD/TN ratio in urine and conductivity in the MBR over time

Figure A.2 – Variations of TMP and membrane permeability over time



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