

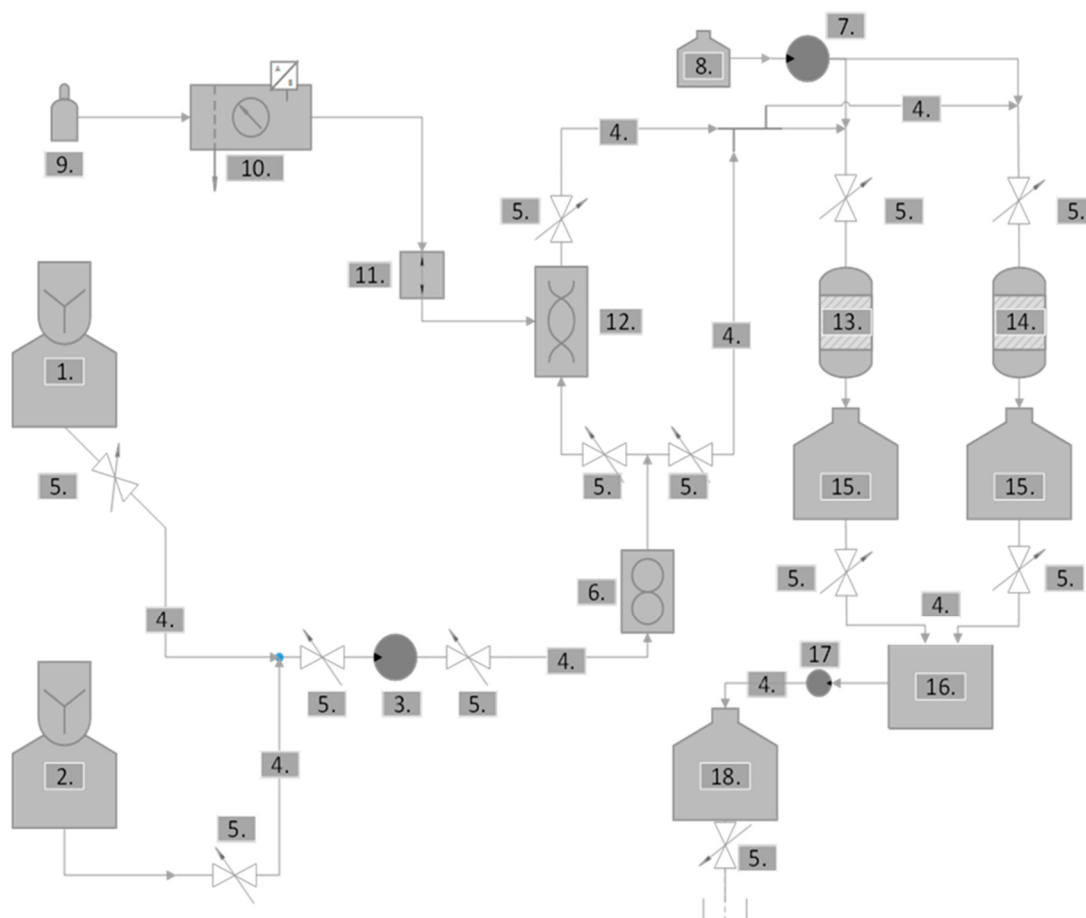


Figure S1. Equipment used in the experiments: (1) 300 l main tank, (2) 1000 l container, equipped with a mixer, (3) gear pump, (4) drinking water piping, (5) valves, (6) rotameter, (7) chemical dosing pump, (8) peroxide chemical tank, (9) oxygen gas cylinder, (10) ozone generator and ozone gas line, (11) ozone gas mass flow controller, (12) OxTubeDN20, (13) Light-emitting diode-ultraviolet (Led-UV) water treatment equipment, (14) UV tube water treatment equipment, (15) final tank, (16) waste container/final disinfection, (17) sewage pump, and (18) wastewater tank.

Table S1. List of the concentrations of analysed anthropogenic substances.

	Analysed Substance (Limit of Detection; µg/l)	Wastewater	Ozone and Ox Tube Device	Wastewater	PAA and UV Disinfection	Wastewater	H ₂ O ₂ and UV Disinfection	TMMU
1	4-Asetamidoantipyrine (0.01)	0.20	<0.01	0.19	0.15	0.20	0.20	42%
2	4-Formylaminoantipyrine (0.02)	0.069	<0.02	0.073	0.054	0.075	0.054	42%
3	5-methylbenzotriazole (0.01)	0.70	0.16	0.86	0.81	0.59	0.58	55%
4	Acetanilide (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	38%
5	Amiloride (0.005)	0.008	<0.005	0.008	0.007	0.009	0.007	23%
6	Amiodarone (0.02)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	53%
7	Amlodipine (0.2)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	54%
8	Amoxicillin (0.1)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	44%
9	Ampicillin (0.005)	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	32%
10	Atenolol (0.005)	0.53	0.11	0.49	0.43	0.45	0.35	37%
11	Atorvastatiini (0.01)	0.11	<0.01	0.19	0.086	0.21	0.072	44%
12	Azathioprine (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	25%
13	Azithromycin (0.01)	0.17	<0.01	0.16	0.13	0.099	0.14	47%
14	Beclomethasone (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	51%
15	Bendroflumethiazide (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	54%
16	Benzotriazole (0.04)	2.8	0.90	2.5	2.5	0.98	1.0	45%

[illegible]

74	Naproxen (0.01)	0.081	<0.010	0.12	0.10	0.089	0.081	39%
75	N-Demethylethymycin A (0.2)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	51%
76	Nelfinavir (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	55%
77	Nitenpyram (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	44%
78	Norfloxacin (0.05)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	41%
79	Ofloxacin (0.05)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	44%
80	Oxymetazone (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	51%
81	Oxytetracycline (0.05)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	52%
82	Paracetamol (0.02)	<0.050	<0.050	<0.050	0.097	<0.050	<0.050	47%
83	Paroxetine (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	40%
84	Penicillin G benzatin (0.5)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	49%
85	Phenazone (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	34%
86	Piperacillin (0.01)	0.29	<0.01	0.61	0.32	0.48	0.46	38%
87	Praziquantel (0.005)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	48%
88	Primidoni (0.005)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	41%
89	Propafenone (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	42%
90	Propanololi (0.005)	0.11	<0.010	0.19	0.16	0.14	0.11	45%
91	Propyphenazone (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	42%
92	Pyrantel (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	45%
93	Quetiapine (0.005)	0.10	<0.005	0.024	0.020	0.031	0.095	40%
94	Raloxifene (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	28%
95	Ramipril (0.005)	0.023	0.006	0.028	0.023	0.033	0.024	33%
96	Risperidone (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	38%
97	Roxithromycin (0.005)	0.013	<0.005	0.012	0.010	0.011	0.014	43%
98	Salbutamol (albuterol) (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	55%
99	Salmeterol (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	37%
100	Sertraline and norsertraline (0.005)	0.042	0.009	0.040	0.039	0.052	0.044	48%
101	Simvastatin (0.5)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	52%
102	Sotalol (0.01)	0.063	<0.010	0.058	0.055	0.086	0.054	46%
103	Sulfadiazine (0.01)	0.033	<0.01	0.043	0.055	0.044	0.041	33%
104	Sulfadimidine (Sulfamethazine) (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	53%
105	Sulfadoxine (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	46%
106	Sulfaguanidine (0.05)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	53%
107	Sulfamerazine (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	45%
108	Sulfamethizole (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	53%
109	Sulfamethoxazole (0.01)	0.059	<0.010	0.053	0.063	0.047	0.065	54%
110	Sulfatiazole (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	40%
111	Tamoxifen (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	49%
112	Terbutaline (0.01)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	43%
113	Tetracycline (0.01)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	46%
114	Toremifene (0.005)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	49%
115	Tramadol (0.005)	0.42	0.043	0.46	0.44	0.38	0.36	51%
116	Triclocarban (0.04)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	30%
117	Trimethoprim (0.001)	0.50	<0.001	0.45	0.40	0.41	0.41	45%
118	Warfarin (0.005)	0.014	<0.005	0.021	0.016	0.015	0.013	40%
119	Venlafaxine (0.005)	1.1	0.096	1.1	1.2	0.87	0.86	51%
120	Verapamil (0.005)	0.014	<0.005	0.018	0.016	0.017	0.013	36%
121	Xylometazoline (0.001)	0.007	<0.001	0.007	0.006	0.007	0.006	43%

H₂O₂ = hydrogen peroxide; OxTube treatment = ozone purification process with OxTube mixing; PAA = peracetic acid; UV = ultraviolet; TMMU = the method measurement uncertainty.

The compounds analysed are presented here as follows:

- If the chemical is not detected, the assay limit for the chemical is given.
- If the result is above the limit of quantification, the result is reported for the compound.
- The section presents the limits of determination under optimal conditions. Assay limits may be higher due to the sample matrix.