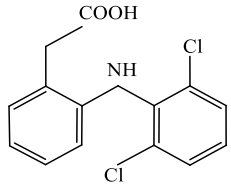
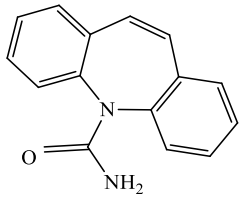
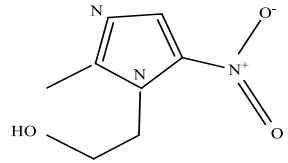
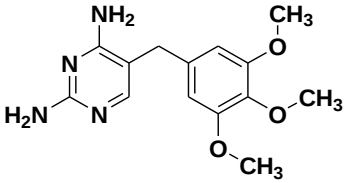
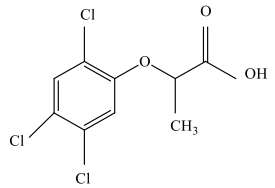
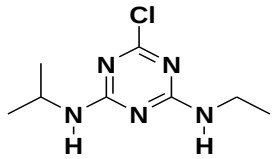
Table 1: Physicochemical properties of some TrOCs showing low and/or highly variable removal[a] by MBR treatment (modified after (Hai et al., 2014))

Class	Compound	Log D_{ow} (pH 7) [b]	Charge at pH 7	Dissociation constant (pKa) [b]	Water solubility (mg/L)[c]	Log K_d	k_{biol} (L/(g_{SS}. d))	Chemical structure	Removal , % [see references in (Hai et al., 2014)]
Non-steroidal anti-inflammatory	Diclofenac ($C_{14}H_{11}Cl_2NO_2$)	1.77	Negative	4.18 ± 0.10 -2.26 ± 0.50	2.4	1.2—2.7	<0.1		0—58
Anti-depressants & mood stabilizers	Carbamazepine ($C_{15}H_{12}N_2O$)	1.89	Neutral	13.94 ± 0.20 -0.49 ± 0.20	18	0.09—1.83	<0.01		0—13
Antibiotic	Metronidazole ($C_6H_9N_3O_3$)	-0.14	Neutral	14.44 ± 0.10 2.58 ± 0.34	9500	Undetectable	--		10—50
	Trimethoprim ($C_{14}H_{18}N_4O_3$)	0.38	Positive	7.20±0.12	400	2.3	0.65		0—90

Pesticide/ herbicide	Fenoprop ($C_9H_7Cl_3O_3$)	- 0.13	Negative	2.93	71	--	--		5—50
	Atrazine ($C_8H_{14}ClN_5$)	2.63	Neutral	2.35±0.50	34.7	0.7—2.1	--		5—40

[a](highly variable and/or <30% removal)
[b] Source: SciFinder database https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf
[c] Source: http://chem.sis.nlm.nih.gov/chemidplus/
na: data not available
K_d: sludge-water distribution coefficient (L/kg $_{SS}$); k_{biol}: pseudo first-order degradation constant (L/(g $_{SS}$. d)).