

Supplementary Material

Removal of favipiravir and oseltamivir in domestic wastewater effluents using ozonation and catalytic ozonation

Nasim Chavoshi¹, Serdar Dogruel¹, Nilay Bilgin-Saritas¹, Zeynep Karaoglu², Irem Ozturk-Ufuk², Ramazan Keyikoglu², Alireza Khataee², Emel Topuz², and Elif Pehlivanoglu-Mantas¹

¹Istanbul Technical University, Faculty of Civil Engineering, Department of Environmental Engineering, Istanbul, Turkey

²Gebze Technical University, Faculty of Engineering, Department of Environmental Engineering, Kocaeli, Turkey

* Corresponding author

Nasim Chavoshi

Mailing address:

Environmental Engineering, Istanbul Technical University, Istanbul, Turkey

E-mail address: chavoshi20@itu.edu.tr

Table 1: Conventional characterizations after ozonation and catalytic ozonation- sample 1.

Process	Ozonation				Catalytic ozonation				
	pH 7		pH 10		pH7		pH 10		
	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	
Specific Ozone dose (0.6 mg O₃/mg DOC)	COD	44.1	11.8	40.6	18.8	42.7	14.6	38.5	23.0
	DOC	17.9	4.8	16.55	12.0	17.49	7.0	15.79	16.01
	COD/DOC	2.46	7.4	2.45	7.8	2.44	8.2	2.44	8.3
	UV ₂₅₄	0.207	49.5	0.180	56.1	0.201	51.0	0.164	60.0
	SUVA	1.16	47	1.09	50.1	1.15	47.3	1.04	52.4

Table 2: Conventional characterizations after ozonation and catalytic ozonation – sample 2.

Process	Ozonation				Catalytic ozonation				
	pH 7		pH 10		pH7		pH 10		
	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	COD (mg/L)	COD Rem. (%)	
Specific Ozone Dose (0.6 mg O3/mg DOC)	COD	45.2	9.6	42.3	15.4	43.9	12.2	40.2	19.6
	DOC	17.96	4.5	17.04	9.4	17.58	6.5	16.25	13.5
	COD/DOC	2.52	5.4	2.48	6.7	2.5	6.1	2.47	7.0
	UV₂₅₄	0.212	48.3	0.191	53.4	0.203	50.5	0.174	57.6
	SUVA	1.18	45.9	1.12	48.6	1.15	47.0	1.07	50.9

