Supplementary Materials

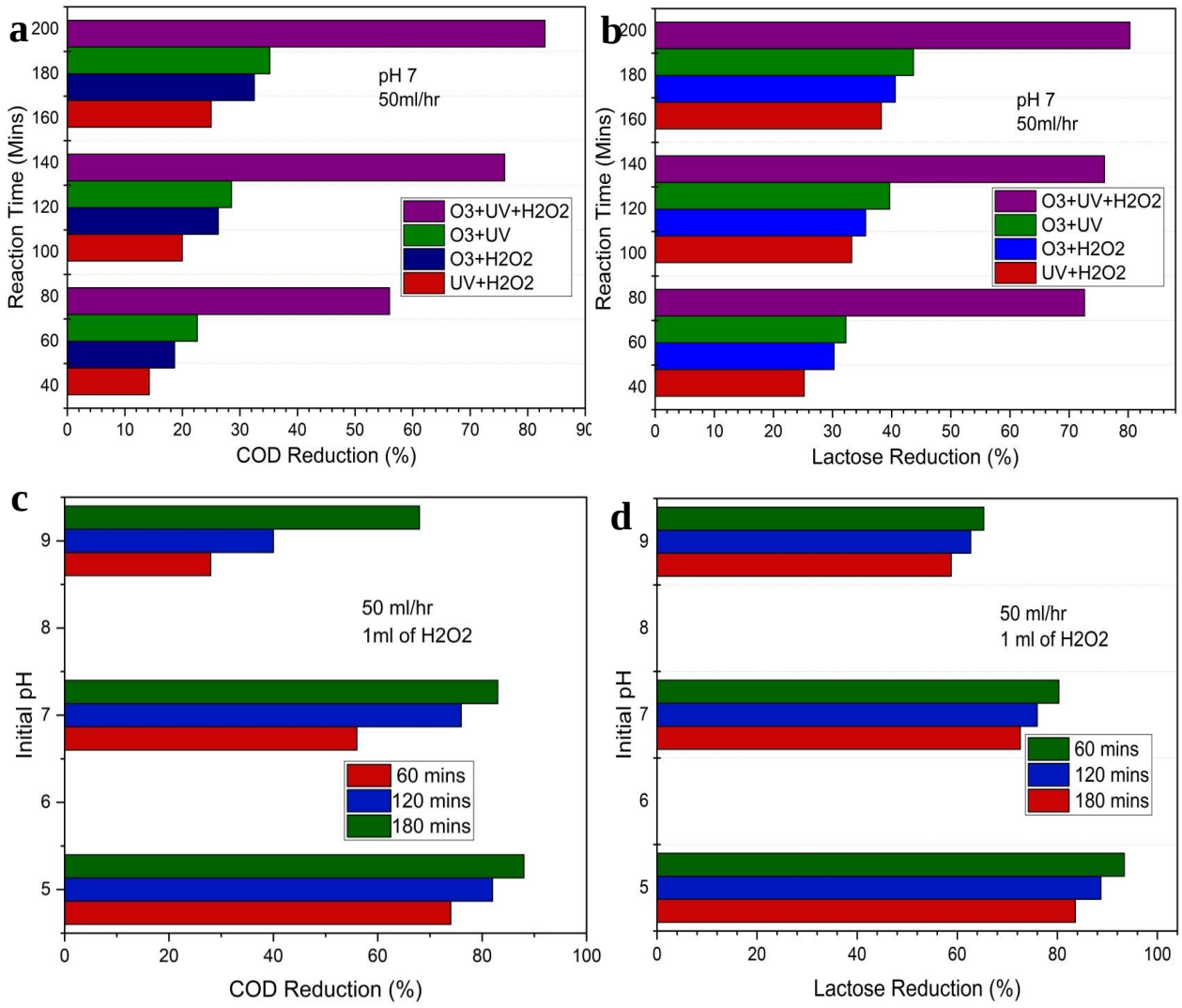

Fig. S1. Synergistic effect of AOP process on (a) COD reduction (b) Lactose Reduction, Optimum condition of O_3+UV+H_2O_2 process on (c) COD reduction (d) Lactose Reduction.

Table S1. Comparison of COD Reduction on the Ozone-Based Photocatalytic Process to Another Treatment Process

Treatment Process	**COD removal (%)**	**References**
Aerobic Process	61	Kothari, Kumar [42]
Anaerobic Process	83.42	Bhuyar, Suke [43]
Electro coagulation	69	Benazzi, Di Luccio [32]
Adsorption process	47.5	Al-Jabari, Dwiek [44]

Ozone+ Nanofilteration	63	Martins and Quinta-Ferreira [45]
O_3+ Fenton+ Electrocoagulation	95	Torres-Sánchez, López-Cervera [41]
O_3+ Fenton+Coagulation	61	Sivrioglu and Yonar [46]
Fenton + Nanofilteration	76	Stanisławek and Kowalik-Klimczak [28]
O_3+ UV+H_2O_2	88	Present work

Table S2. Characterization of Dairy Wastewater before and after Treatment

Parameter	**Before the treatment**		**After the treatment**	
	Simulated wastewater	**Real wastewater**	**Simulated wastewater**	**Real wastewater**
COD (mg/L)	2,000	1,321	240	105
BOD (mg/L)	152	245	14	18
Lactose (mg/L)	300	420	6	10
Turbidity (NTU)	1,734	1,870	< 50	< 10
Color	White	Slightly dark white	Colorless	Colorless