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Oxidising agent	E° (V, 25°C
Fluor	3.03
Hydroxyl radical	2.80
Atomic oxygen	2.42
Ozone	2.07
Hydrogen peroxide	1.78
Hydroperoxil radical	1.70
Permanganate	1.68
Hipobromure acid	1.59
Chlorine dioxide	1.57
Hypochlorous acid	1.49
Hypoiodide acid	1.45
Chlorine	1.36
Bromide	1.09
Iode	0.54













	1. Introduction		utad
Characteristics of oliv	e mill wastewater (ON	nw)	
Parameter	Olive mill wastewater (batch process)	Limit value (DL 236/98)	Units
рН	4.8	6.0 - 9.0	
BOD <sub>5</sub>	32 000	40	mg O <sub>2</sub> /L
COD	92 500	150	mg O <sub>2</sub> /L
			/1
TSS	67 070	60	mg/L
TSS VSS	67 070 39 920	60 -	mg/L mg/L
TSS VSS Oil and fats	67 070 39 920 627	60 - 15	mg/L mg/L mg/L
TSS VSS Oil and fats Total polyphenols	67 070 39 920 627 <b>2 095</b>	60 - 15 <b>0.5</b>	mg/L mg/L mg/L mg/L
TSS VSS Oil and fats Total polyphenols N Kjeldahl	67 070 39 920 627 <b>2 095</b> 390	60 - 15 <b>0.5</b> 15	mg/L mg/L mg/L mg/L mg/L











	2.1. Fenton reagent				
Fenton	enton reagent – (2) Phenolic acids				
	Phenolic acid	к <sub>он</sub> (	(x 10 <sup>9</sup> ) (L/m	ol.s)	
	Ferulic acid		3.84		
	<i>p</i> -Coumaric acid		2.53		
	Veratric acid		2.21		
	<u>p-hydroxybenzoic acid</u>		<u>2.19</u>		
	$\beta$ -Resorcilic acid		2.17		
	Cafeic acid		1.80		
	Siringic acid		1.73		
	Vanillic acid		1.47		
	3,4,5-Trimetoxybenzoic acid		1.24		
	Protocatechuic acid		0.67		





























		2.	4. Photo	-Fenton with sol	ar radiation		I	utad
W	Vinery	wastewate	er cha	racteristic	s			
Sii	mulatec	d winery wastev - Wine - Grape juice - Wine + grape - Enologic addit	vater pe juice tives	erformed fror	m:			
1				Conductivity	TOC	000	Total nalumbanala	
	Effluent	Synthetic sample	рН	Conductivity (µS/cm)	TOC (mg C/L)	COD (mg O <sub>2</sub> /L)	Total polyphenols (mg <sub>Gallic acid</sub> /L)	
	Effluent WV	Synthetic sample Wine	рН 3.8	Conductivity (µS/cm) 152	TOC (mg C/L) 1155	COD (mg O <sub>2</sub> /L) 4440	Total polyphenols (mg <sub>Gallic acid</sub> /L) 93	
	Effluent WV WG	Synthetic sample Wine Grape juice	рН 3.8 4.3	Conductivity (µS/cm) 152 107	TOC (mg C/L) 1155 1185	COD (mg O <sub>2</sub> /L) 4440 4500	Total polyphenols (mg <sub>Gallic acid</sub> /L) 93 112	
	Effluent WV WG WW	Synthetic sample Wine Grape juice Wine + Grape juice (50:50)	рН 3.8 4.3 4.1	Conductivity (μ\$/cm) 152 107 124	TOC (mg C/L) 1155 1185 1165	COD (mg 0 <sub>2</sub> /L) 4440 4500 4474	Total polyphenols (mg <sub>Gallic acid</sub> /L) 93 112 103	





Candied (or crystall	Candied (or crystallized) fruit wastewater				
	Values				
Parameter	Sample A	Sample B	Sample C		
pH (escala Sorensen)	9.78	3.50	6.95		
E° (mV)	-140	212	17	Biodegradability Index = BOD_	
Conductivity (µS/cm)	3 820	8 304	8 578	2.000 <b>9</b> .000.0 <b>9</b> .000.00	
Turbidity (NTU)	410	359	633	BI < 0.4 → Non biodegrada	
Total Suspended Solids (mg/L)	1100	1420	1850	0.4 <bi< 0.7="" biodegrada<="" low="" td="" →=""></bi<>	
Volatile Suspended Solids (mg/L)	125	265		0.7 <bi< 0.8="" biodegradable<br="" →="">BI&gt; 0.8 → High biodegrad</bi<>	
COD (mg O <sub>2</sub> /L)	22 932	20 902	35 369		
BOD <sub>5</sub> (mg O <sub>2</sub> /L)	1 400	3 300	6 600		
Toatal Polyphenols (mg galic acid/L)	142	403	384	Sample A = 0.06 Sample B = 0.16	









