

Table S3. Biomass production (g L^{-1}), maximum specific growth rate (d^{-1}), productivities ($\text{g L}^{-1} \text{d}^{-1}$) and bioremediation expressed as removal of COD, N and P in the cultivation of microalgae on secondary wastewater.

Type of water	Conditions	Microalgae/Microalgae in symbiosis	Biomass production	Unit	Maximum specific growth rate	Time Unit	Productivities	Unit	Bioremediation removal %		Reference
									N	P	
Secondary wastewater	batch	<i>Chlorella minutissima-Chlorella sp.</i>	0.96	g SS L^{-1}			0.10	$\text{g SS L}^{-1} \text{d}^{-1}$			Mennaa et al., (2019)
Secondary wastewater	Period I (217-385 h) (CO ₂)	<i>Chlorella minutissima-Chlorella sp.</i>	0.406 ± 0.002	g SS L^{-1}			0.11	$\text{g SS L}^{-1} \text{d}^{-1}$	99	99	
Secondary wastewater	Period II (385–721 h) (CO ₂ -Free)	<i>Chlorella minutissima-Chlorella sp.</i>	0.226	g SS L^{-1}			0.06	$\text{g SS L}^{-1} \text{d}^{-1}$	59	98	
Secondary wastewater	Period III (721 and the end) (CO ₂)	<i>Chlorella minutissima-Chlorella sp.</i>	0.364	g SS L^{-1}			0.10	$\text{g SS L}^{-1} \text{d}^{-1}$	99	99	
Secondary wastewater	600h batch	<i>Chlorella vulgaris</i>	0.47	g L^{-1}	1.36	d^{-1}	0.107	$\text{g L}^{-1} \text{d}^{-1}$	95	100	Álvarez-Díaz P.D. et al., (2017)
Secondary wastewater	600h batch	<i>Chlorella kessleri</i>	0.38	g L^{-1}	1.59	d^{-1}	0.071	$\text{g L}^{-1} \text{d}^{-1}$	95	100	
Secondary wastewater	600h batch	<i>Chlorella sorokiniana</i>	0.74	g L^{-1}	0.59	d^{-1}	0.076	$\text{g L}^{-1} \text{d}^{-1}$	94	100	
Secondary wastewater	600h batch	<i>Botryococcus braunii</i>	1.09	g L^{-1}	0.51	d^{-1}	0.057	$\text{g L}^{-1} \text{d}^{-1}$	86	100	
Secondary wastewater	600h batch	<i>Neochloris oleabundans</i>	0.25	g L^{-1}	0.17	d^{-1}	0.008	$\text{g L}^{-1} \text{d}^{-1}$	57	100	
Secondary wastewater	600h batch	<i>Scenedesmus obliquus</i>	1.42	g L^{-1}	0.30	d^{-1}	0.081	$\text{g L}^{-1} \text{d}^{-1}$	96	100	
Secondary wastewater	600h batch	<i>Ankistrodesmus falcatus</i>	0.59	g L^{-1}			0.048	$\text{g L}^{-1} \text{d}^{-1}$	89	100	
Secondary wastewater	240h batch with 5% di CO ₂	<i>Chlorella vulgaris</i>	1.3 ± 0.270	g L^{-1}	0.480 ± 0.144	d^{-1}	0.112	$\text{g L}^{-1} \text{d}^{-1}$	>90	>98	Arbib Z. et al., (2014)
Secondary wastewater	240h batch with 5% di CO ₂	<i>Chlorella kessleri</i>	1.1 ± 0.110	g L^{-1}	0.624 ± 0.168	d^{-1}	0.111	$\text{g L}^{-1} \text{d}^{-1}$	>90	>98	
Secondary wastewater	240h batch with 5% di CO ₂	<i>Scenedesmus obliquus</i>	1.6 ± 0.105	g L^{-1}	0.672 ± 0.168	d^{-1}	0.152	$\text{g L}^{-1} \text{d}^{-1}$	>90	>98	
Secondary wastewater	240h batch with 5% di CO ₂	<i>Natural Bloom</i>	1.8 ± 0.161	g L^{-1}	0.600 ± 0.144	d^{-1}	0.167	$\text{g L}^{-1} \text{d}^{-1}$	>90	>98	
Secondary wastewater	batch WW	<i>Chlorella vulgaris</i>	0.66 ± 0.015	g L^{-1}	0.83 ± 0.09	d^{-1}	0.10	$\text{g SS L}^{-1} \text{d}^{-1}$	99	80	Ruiz J. Et al., (2013)
Secondary wastewater	batch WW + NP	<i>Chlorella vulgaris</i>	1.08 ± 0.019	g SS L^{-1}	0.79 ± 0.07	d^{-1}	0.15	$\text{g SS L}^{-1} \text{d}^{-1}$	99	96	
Secondary wastewater	batch WW + NP + M	<i>Chlorella vulgaris</i>	1.06 ± 0.026	g SS L^{-1}	0.78 ± 0.08	d^{-1}	0.15	$\text{g SS L}^{-1} \text{d}^{-1}$	99	96	
Secondary wastewater	operated in continuous HRT 0,5 d	<i>Scenedesmus obliquus</i>	0 ± 0	g SS L^{-1}			0 ± 0	$\text{g SS L}^{-1} \text{d}^{-1}$	0	0	Ruiz J. Et al., (2013)

Secondary wastewater	operated in continuous HRT 1,1 d	<i>Scenedesmus obliquus</i>	0.38±0.013	g SS L ⁻¹			0.35±0.01	g SS L ⁻¹ d ⁻¹	89	95	
Secondary wastewater	operated in continuous HRT 1,7 d	<i>Scenedesmus obliquus</i>	0.61±0.033	g SS L ⁻¹			0.36±0.02	g SS L ⁻¹ d ⁻¹	91	97	
Secondary wastewater	operated in continuous HRT 2,3 d	<i>Scenedesmus obliquus</i>	0.63±0.066	g SS L ⁻¹			0.28±0.03	g SS L ⁻¹ d ⁻¹	89	90	
Secondary wastewater	operated in continuous HRT 2,8 d	<i>Scenedesmus obliquus</i>	1.05±0.069	g SS L ⁻¹			0.38±0.02	g SS L ⁻¹ d ⁻¹	87	98	
Secondary wastewater	operated in continuous HRT 3,4 d	<i>Scenedesmus obliquus</i>	0.98±0.040	g SS L ⁻¹			0.29±0.01	g SS L ⁻¹ d ⁻¹	81	95	
Secondary wastewater	indoor photobioreactor	<i>Scenedesmus</i> 80%			0.39	d ⁻¹			99	99	Di Termini I. et al., (2011)
Secondary wastewater	outdoor photobioreactor	<i>Scenedesmus</i> 70%			0.02	d ⁻¹			90	80-90	