Table S1. The changes in the removal efficiency of the COD and N-NH_3, pH and SOUR values in the non-inoculated and bioaugmented SBRs during 96 days of the wastewater treatment.

Bioreactor	Parameter Time (Days)	COD Removal (%)	N-NH_4^+ Removal (%)	pH	SOUR, mgO_2/g MLSS · h
C	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	6.99 ± 0.05^{a}	8.20 ± 0.22^{a}
	32	95.46 ± 1.32^{a}	87.10 ± 0.11^{a}	6.97 ± 0.03^{a}	9.82 ± 0.21^{b}
	64	94.36 ± 0.88^{a}	86.25 ± 0.15^{a}	7.07 ± 0.02^{a}	10.90 ± 0.14^{c}
	96	95.33 ± 1.46^{a}	86.13 ± 0.64^{a}	6.99 ± 0.05^{a}	9.14 ± 0.44^{ab}
C_{OR45a}	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	6.86 ± 0.05^{a}	8.27 ± 0.19^{a}
	32	96.19 ± 3.48^{ab}	89.70 ± 0.17^{a}	6.99 ± 0.02^{a}	10.56 ± 0.35^{c}
	64	94.46 ± 2.71^{a}	87.04 ± 0.82^{a}	7.19 ± 0.01^{a}	11.41 ± 0.02^{cd}
	96	95.02 ± 1.55^{a}	88.13 ± 0.82^{a}	7.20 ± 0.12^{b}	11.81 ± 0.04^{d}
C_{KB3}	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	7.00 ± 1.03^{a}	8.29 ± 0.02^{a}
	32	96.12 ± 0.34^{ab}	96.17 ± 0.31^{b}	6.95 ± 0.01^{a}	11.54 ± 0.38^{cd}
	64	96.58 ± 2.73^{ab}	95.69 ± 0.07^{b}	7.25 ± 0.22^{b}	11.10 ± 0.28^{c}
	96	98.12 ± 1.99^{b}	97.04 ± 0.82^{b}	7.31 ± 0.21^{b}	11.67 ± 0.31^{cd}
$C_{OR45a+KB3}$	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	7.20 ± 0.35^{b}	8.31 ± 0.30^{a}
	32	95.67 ± 4.02^{a}	97.78 ± 0.63^{b}	6.99 ± 0.06^{a}	11.34 ± 0.16^{cd}
	64	96.72 ± 0.79^{ab}	96.97 ± 0.27^{b}	7.21 ± 0.02^{b}	10.98 ± 0.05^{c}
	96	98.63 ± 1.33^{b}	97.07 ± 0.27^{b}	7.28 ± 0.09^{b}	11.55 ± 0.07^{cd}
L	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	7.22 ± 0.11^{b}	8.39 ± 0.12^{a}
	32	73.28 ± 5.12^{c}	83.10 ± 0.48^{a}	8.14 ± 0.14^{c}	7.28 ± 0.06^{e}
	64	57.88 ± 4.13^{d}	75.25 ± 0.12^{b}	8.98 ± 0.01^{d}	5.69 ± 0.12^{f}
	96	45.08 ± 2.29^{e}	64.36 ± 0.09^{c}	9.47 ± 0.01^{de}	3.91 ± 0.08^{g}
L_{OR45a}	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	7.92 ± 0.31^{c}	8.43 ± 0.32^{a}
	32	95.34 ± 4.25^{a}	94.98 ± 0.09^{b}	7.99 ± 0.14^{c}	10.22 ± 0.41^{bc}
	64	86.16 ± 3.33^{f}	94.34 ± 0.73^{b}	7.35 ± 0.05^{b}	8.13 ± 0.09^{a}
	96	79.27 ± 1.95^{cf}	88.14 ± 1.12^{a}	7.45 ± 0.02^{b}	7.88 ± 0.11^{ae}
L_{KB3}	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	7.75 ± 0.03^{bc}	8.53 ± 0.53^{a}
	32	96.06 ± 2.66^{b}	95.06 ± 0.51^{b}	7.97 ± 0.14^{c}	9.53 ± 0.06^{b}
	64	91.13 ± 0.22^{af}	93.76 ± 0.07^{b}	8.11 ± 0.10^{c}	10.08 ± 0.01^{b}
	96	86.32 ± 1.36^{f}	90.57 ± 0.49^{ab}	8.19 ± 0.03^{c}	8.39 ± 0.01^{a}
$L_{OR45a+KB3}$	0	94.56 ± 0.56^{a}	87.00 ± 0.85^{a}	8.46 ± 0.06^{cd}	8.27 ± 0.42^{a}
	32	95.47 ± 6.22^{a}	97.51 ± 0.27^{b}	8.11 ± 0.14^{c}	9.78 ± 0.24^{b}
	64	88.88 ± 2.83^{af}	93.12 ± 0.23^{c}	7.23 ± 0.05^{b}	9.03 ± 0.16^{ab}
	96	83.32 ± 5.01^{cf}	88.06 ± 0.23^{a}	7.48 ± 0.05^{b}	8.08 ± 0.16^{a}

COD—chemical oxygen demand, N-NH_4^+ - ammonia nitrogen, SOUR—specific oxygen uptake rate. The values that are indicated by different lower case letters are statistically significant and referred to the changes in all SBRs during the wastewater treatment.

Table S2. The changes in the concentration of phenolic compounds and wastewater quality index in the non-inoculated and bioaugmented SBRs fed with the synthetic wastewater and phenolic landfill leachate during 96 days.

Bioreactor	L	L_{OR45a}	L_{KB3}	$L_{OR45a+KB3}$
Time, Days	**Wastewater Quality Index**			
32 (end of the stage I)	102.55 ± 4.55^{a}	63.34 ± 11.66^{b}	57.12 ± 5.44^{b}	58.03 ± 22.42^{b}
64 (end of the stage II)	162.44 ± 11.03^{a}	71.12 ± 5.62^{b}	69.05 ± 0.14^{b}	66.57 ± 2.08^{b}
96 (end of the stage III)	249.76 ± 2.22^{a}	88.03 ± 2.09^{b}	72.16 ± 1.84^{b}	78.99 ± 15.33^{c}

Table S3. The values of functional capacity indices and kinetic parameters (A_{max} and $Avt_{1/2}$) for the non-inoculated and bioaugmented AS, fed only with the synthetic wastewater and cotreated with the phenolic landfill leachate during 96 days.

Bioreactor	Time, Days	Functional Capacity Indices and Kinetic Parameters					
		H'_{Eco}	S	G	AWCD	A_{max}	$Avt_{1/2}$
C	0	3.12 ± 0.07^{ab}	24.00 ± 0.00^{a}	0.36 ± 0.06^{a}	0.92 ± 0.05^{a}	1.35 ± 0.04^{a}	47 ± 1^{a}
	32	2.86 ± 0.09^{c}	20.67 ± 0.58^{b}	0.40 ± 0.10^{a}	0.79 ± 0.02^{b}	1.47 ± 0.10^{b}	55 ± 1^{b}
	64	3.01 ± 0.13^{b}	24.00 ± 0.00^{a}	0.46 ± 0.08^{b}	0.87 ± 0.11^{c}	1.27± 0.03^{c}	47 ± 1^{a}
	96	3.36 ± 0.76^{a}	28.00 ± 0.00^{c}	0.41 ± 0.09^{a}	0.75 ± 0.10^{b}	1.20 ± 0.21^{c}	48 ± 3^{a}
C_{OR45a}	32	2.92 ± 0.15^{bc}	21.00 ± 1.00^{b}	0.46 ± 0.12^{b}	0.76 ± 0.06^{b}	1.48 ± 0.02^{b}	52 ± 3^{ab}
	64	2.95 ± 0.08^{b}	20.50 ± 0.70^{b}	0.44 ± 0.02a^{b}	0.75 ± 0.08^{b}	1.30 ± 0.07^{a}	49 ± 1^{a}
	96	3.01 ± 0.04^{b}	28.00 ± 0.00^{c}	0.45 ±0.01^{b}	1.08 ± 0.05^{a}	1.32 ± 0.22^{a}	46 ± 3^{a}
C_{KB3}	32	2.67 ± 0.21^{de}	19.67 ± 1.21^{b}	0.47 ± 0.06^{b}	0.71 ± 0.13^{b}	1.40 ± 0.09^{ab}	56 ± 3^{b}
	64	2.60 ± 0.19^{de}	20.50 ± 2.00^{b}	0.48 ± 0.06^{b}	0.72 ± 0.22^{b}	1.38 ± 0.14^{ab}	45 ± 1^{a}
	96	3.40 ± 0.12^{a}	31.00 ± 0.00^{d}	0.40 ± 0.02^{a}	1.11 ± 0.08^{d}	1.46 ± 0.27^{b}	46 ± 2^{ad}
$C_{OR45a+KB3}$	32	3.11 ± 0.04^{ab}	25.50 ± 2.00^{a}	0.45 ± 0.12^{b}	0.94 ± 0.01^{a}	1.49 ± 0.01^{b}	61 ± 4^{c}
	64	3.22 ± 0.14^{a}	25.00 ± 1.00^{a}	0.43 ± 0.01^{ab}	0.89 ± 0.05^{a}	1.44 ± 0.03^{ab}	45 ± 1^{a}
	96	3.35 ± 0.11^{a}	31.00 ± 0.00^{d}	0.44 ± 0.02^{ab}	0.10 ± 0.04^{a}	1.41 ± 0.02^{ab}	46 ± 2^{ad}
L	32	2.51 ± 0.17^{e}	14.67 ± 1.16^{e}	0.65 ± 0.02^{cd}	0.55 ± 0.01^{e}	1.00 ± 0.07^{d}	39 ± 2^{d}
	64	2.15 ± 0.09^{f}	12.50 ± 0.70^{f}	0.71 ± 0.02^{d}	0.37 ± 0.05^{f}	0.95 ± 0.01^{d}	35 ± 3^{de}
	96	1.66 ± 0.23^{g}	10.50 ± 0.70^{g}	0.84 ± 0.09^{d}	0.19 ± 0.02^{g}	0.37 ± 0.01^{e}	32 ± 1^{e}
L_{OR45a}	32	2.90 ± 0.07^{bc}	19.00 ± 0.58^{b}	0.44 ± 0.01^{ab}	0.77 ± 0.01^{b}	1.24 ± 0.04^{c}	37 ± 1^{d}
	64	2.81 ± 0.15^{c}	17.00 ± 1.00^{h}	0.54 ± 0.01^{bc}	0.65 ± 0.01^{be}	1.22 ± 0.07^{c}	45 ± 1^{a}
	96	2.64 ± 0.25^{de}	21.00 ± 2.65^{b}	0.58 ± 0.02^{c}	0.59 ± 0.04^{e}	0.90 ± 0.12^{d}	48± 2^{a}
L_{KB3}	32	2.97 ± 0.06^{b}	21.00 ± 1.00^{b}	0.45 ± 0.01^{b}	0.95 ± 0.01^{a}	1.50 ± 0.09^{e}	44 ± 4^{ad}
	64	2.95 ± 0.05^{b}	19.67 ± 0.58^{b}	0.54 ± 0.01^{bc}	0.73 ± 0.02^{b}	1.21 ± 0.03^{c}	43 ± 0^{ad}
	96	2.73 ± 0.61^{d}	22.67 ± 1.53^{b}	0.57 ± 0.10^{c}	0.61 ± 0.01^{be}	0.93 ± 0.11^{d}	48 ± 4^{a}
$L_{OR45a+KB3}$	32	2.84 ± 0.07^{c}	18.67 ± 0.58^{bh}	0.45 ± 0.01^{b}	0.71 ± 0.01^{b}	1.38 ± 0.10^{a}	44 ± 4^{a}
	64	2.77 ± 0.15^{d}	19.67 ± 1.56^{b}	0.48 ± 0.07^{b}	0.76 ± 0.04^{b}	1.34 ± 0.29^{a}	43 ± 0^{ad}
	96	2.94 ± 0.05^{b}	25.00 ± 2.00^{a}	0.56 ± 0.23^{c}	0.60 ± 0.03^{be}	1.03 ± 0.05^{c}	52 ± 2^{b}

H'_{ECO}—Shannon–Weaver diversity index; S—metabolic richness index; G—Gini coefficient; A_{max}—maximum microbial activity; AWCD—average well color development; Avt_{50}—time at which the total microbial activity increased at the fastest rate. The values that are indicated by different lower case letters are statistically significant and referred to changes in all SBRs during the wastewater treatment.

Table S4. The values of carbon, nitrogen and phosphorus usage indices for the non-inoculated and bioaugmented AS, fed only with the synthetic wastewater and cotreated with the phenolic landfill leachate during 96 days.

Bioreactor	Time, Days	Usage of Biolog®EcoPlate substrates		
		C-USE	N-USE	P-USE
C	0	77.42 ± 0.00[a]	31.50 ± 3.41[a]	5.31 ± 0.41[a]
	32	66.68 ± 1.87[b]	35.61 ± 1.59[b]	4.98 ± 0.06[b]
	64	77.42 ± 0.00[a]	31.05 ± 4.42[a]	5.46 ± 0.31[a]
	96	90.32 ± 0.00[c]	32.36 ± 1.44[a]	4.27 ± 0.28[bc]
C_{OR45a}	32	67.74 ± 3.23[b]	36.80 ± 1.50[b]	2.43 ± 0.45[d]
	64	66.13 ± 2.26[b]	39.76 ± 0.89[c]	2.15 ± 0.81[d]
	96	90.32 ± 0.00[c]	32.03 ± 0.55[a]	1.09 ± 0.03[e]
C_{KB3}	32	63.45 ± 3.90[b]	32.30 ± 0.54[a]	1.10 ± 0.03[e]
	64	66.13 ± 6.45[b]	34.23 ±0.97[b]	1.66 ± 1.35[de]
	96	100.00 ± 0.00[d]	31.72 ± 0.80[a]	4.18 ± 0.16[c]
$C_{OR45a+KB3}$	32	82.26 ± 6.45[a]	31.35 ± 1.48[a]	3.18 ± 0.59[f]
	64	80.65 ± 3.23[a]	30.53 ± 1.99[a]	3.75 ± 1.54[c]
	96	100.00 ± 0.00[d]	32.54 ± 1.13[a]	4.08 ± 0.20[c]
L	32	47.32 ± 3.74[e]	32.85 ± 1.19[a]	3.53 ± 0.25[c]
	64	40.32 ± 2.26[f]	36.13 ± 0.08[b]	0.94 ± 0.38[e]
	96	33.87 ± 2.29[g]	41.50 ± 0.38[c]	0.00 ± 0.00[g]
L_{OR45a}	32	61.29 ± 1.87[b]	31.82 ± 2.27[a]	2.00 ± 0.56[d]
	64	54.84 ± 3.23[h]	29.76 ± 0.69[d]	2.03 ± 0.57[e]
	96	67.74 ± 8.55[b]	31.39 ± 4.46[a]	3.18 ± 0.45[f]
L_{KB3}	32	67.74 ± 3.23[b]	33.22 ± 0.83[ab]	3.81 ± 0.42[c]
	64	63.45 ± 1.87[b]	35.09 ± 0.37[b]	3.17 ± 0.07[f]
	96	73.13 ± 4.94[b]	31.26 ± 0.83[a]	0.48 ± 0.09[h]
$L_{OR45a+KB3}$	32	60.23 ± 1.87[bh]	35.52 ± 0.47[b]	3.19 ± 0.58[f]
	64	63.45 ± 5.03[b]	33.95 ± 1.78[ab]	2.31 ± 0.15[d]
	96	80.65 ± 6.45[a]	30.52 ± 0.41[a]	0.43 ± 0.16[h]

C-USE—carbon usage index, N-USE—nitrogen usage index, P-USE—phosphorus usage index. The values that are indicated by different lower case letters are statistically significant and referred to changes in all SBRs during wastewater treatment.