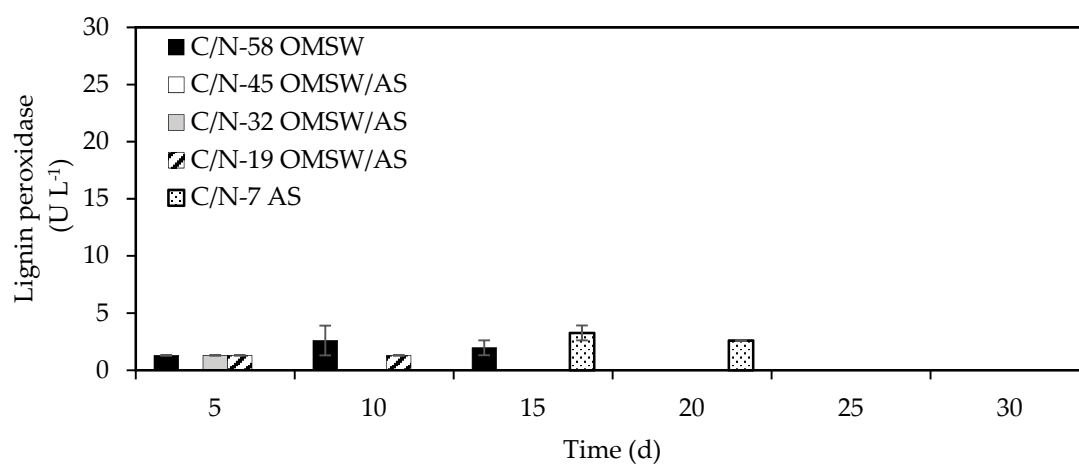


(a)



(b)

**Figure S1.** Enzymatic activities of Lac (a) and LiP (b) among all the pre-treatment.

**Table S1.** Enzymatic Activity.

ANOVA: Two-Factor with Replication						
<b>Laccase enzyme</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	166,8	4	41,7	10,9	1,05E-06	2,5
Columns	316,4	5	63,3	16,5	3,13E-10	2,4
Interaction	256,1	20	12,8	3,3	1,55E-04	1,7
Within	229,7	60	3,8			
Total	969,0	89				
<b>Manganese peroxidase enzyme</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	212088,0	4	53022,0	206,7	2,36E-34	2,5
Columns	169078,9	5	33815,8	131,8	5,06E-31	2,4
Interaction	237693,8	20	11884,7	46,3	4,07E-29	1,7
Within	15391,6	60	256,5			
Total	634252,2	89				
<b>Manganese independent peroxidase enzyme</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	14122,6	4	3530,7	61,8	1,33E-20	2,5
Columns	5994,7	5	1198,9	21,0	4,59E-12	2,4
Interaction	6079,5	20	304,0	5,3	2,31E-07	1,7
Within	3428,1	60	57,1			
Total	29624,9	89				

**Table S2.** MnP activity.

ANOVA: Two-Factor with Replication						
<b>MnP activity in pretreatment at 171 g L<sup>-1</sup> TS</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	72875,8	1	72875,8	450,7	6,94E-11	4,7
Columns	14322,4	2	7161,2	44,3	2,88E-06	3,9
Interaction	16520,7	2	8260,4	51,1	1,35E-06	3,9
Within	1940,3	12	161,7			
Total	105659,2	17				
<b>MnP activity in pretreatment at 75 g L<sup>-1</sup> TS</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	4707,7	1	4707,7	7,7	1,66E-02	4,7
Columns	2122,9	2	1061,4	1,7	2,16E-01	3,9
Interaction	9434,4	2	4717,2	7,8	6,87E-03	3,9
Within	7294,6	12	607,9			
Total	23559,6	17				
<b>MnP activity in pretreatment at 32 g L<sup>-1</sup> TS</b>						
<i>Source of variation</i>	<i>SS</i>	<i>df</i>	<i>Ms</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	26293,7	1	26293,7	125,5	1,04E-07	4,7
Columns	48446,6	2	24223,3	115,6	1,44E-08	3,9
Interaction	50244,6	2	25122,3	119,9	1,17E-08	3,9
Within	2513,7	12	209,5			
Total	127498,6	17				