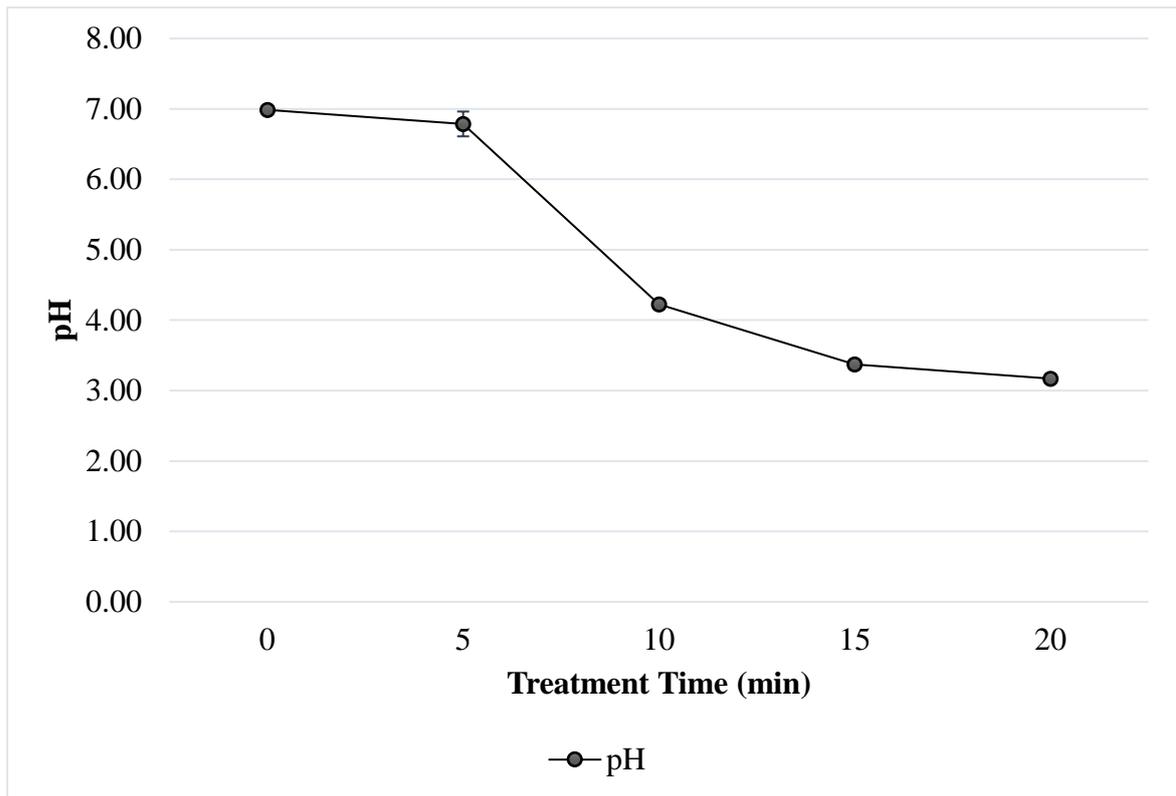


*Supplementary*

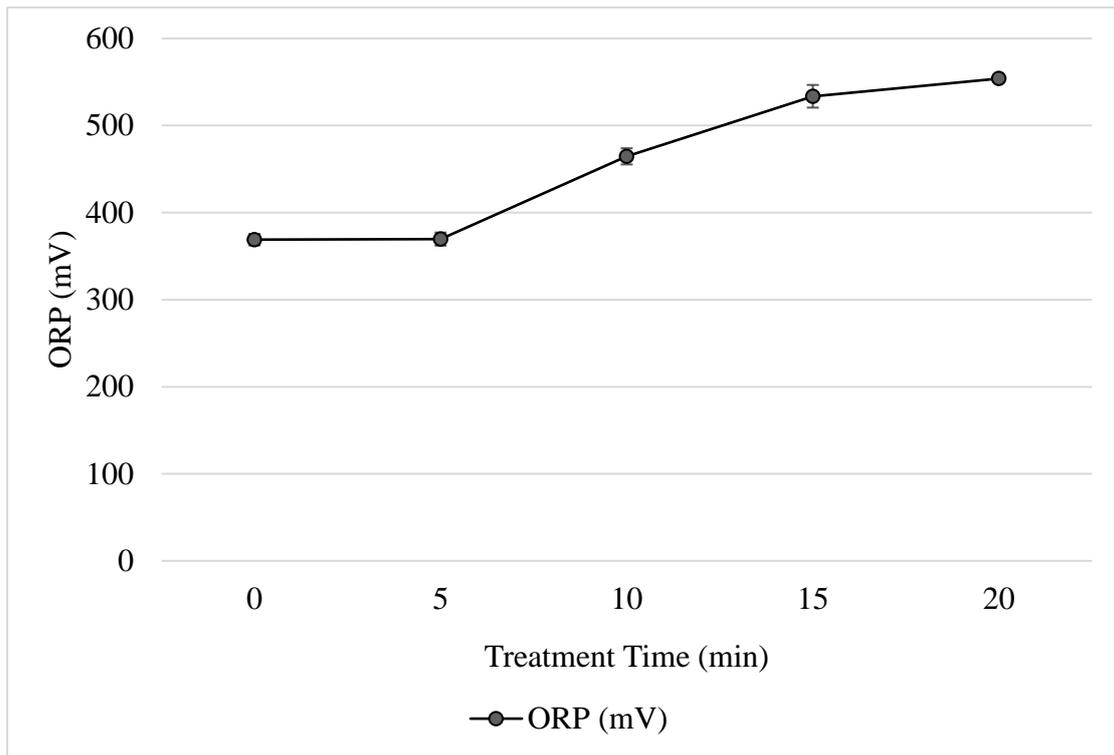
**Table 1.** The physiochemical properties of PAW under different treatment time

<b>Treatment time (min)</b>	<b>Nitrate (mg/L)</b>	<b>Nitrite (mg/L)</b>	<b>pH</b>	<b>Conductivity (<math>\mu</math>S/cm)</b>	<b>ORP (mV)</b>
0	$0.70 \pm 0.15$	$0.00 \pm 0.00$	$6.99 \pm 0.01$	$83.6 \pm 0.61$	$369 \pm 6.56$
5	$13.8 \pm 0.15$	$10.3 \pm 0.58$	$6.79 \pm 0.18$	$104.9 \pm 22.55$	$370 \pm 7.51$
10	$29.8 \pm 1.67$	$17.3 \pm 1.15$	$4.22 \pm 0.07$	$117.9 \pm 2.80$	$465 \pm 9.29$
15	$33.3 \pm 0.87$	$13.0 \pm 1.00$	$3.37 \pm 0.06$	$208.3 \pm 6.51$	$534 \pm 13.0$
20	$42.7 \pm 0.70$	$14.7 \pm 0.58$	$3.17 \pm 0.06$	$311.7 \pm 12.01$	$554 \pm 2.65$

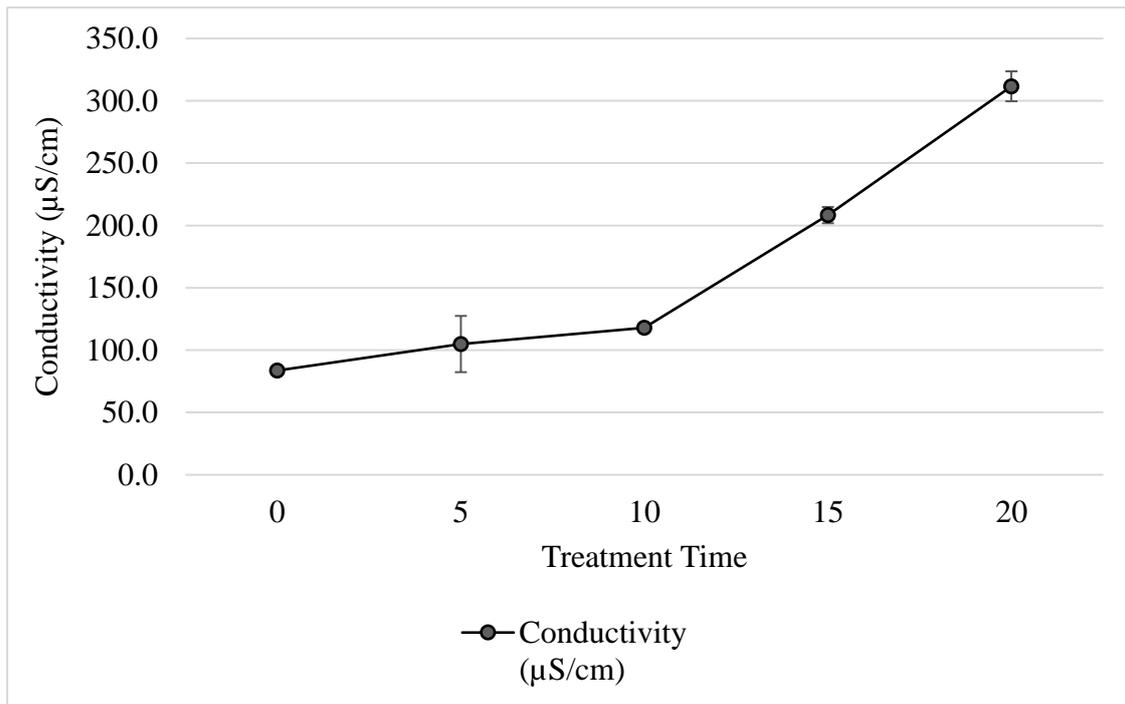
Note: The analysis was carried out in triplicates (n=3).



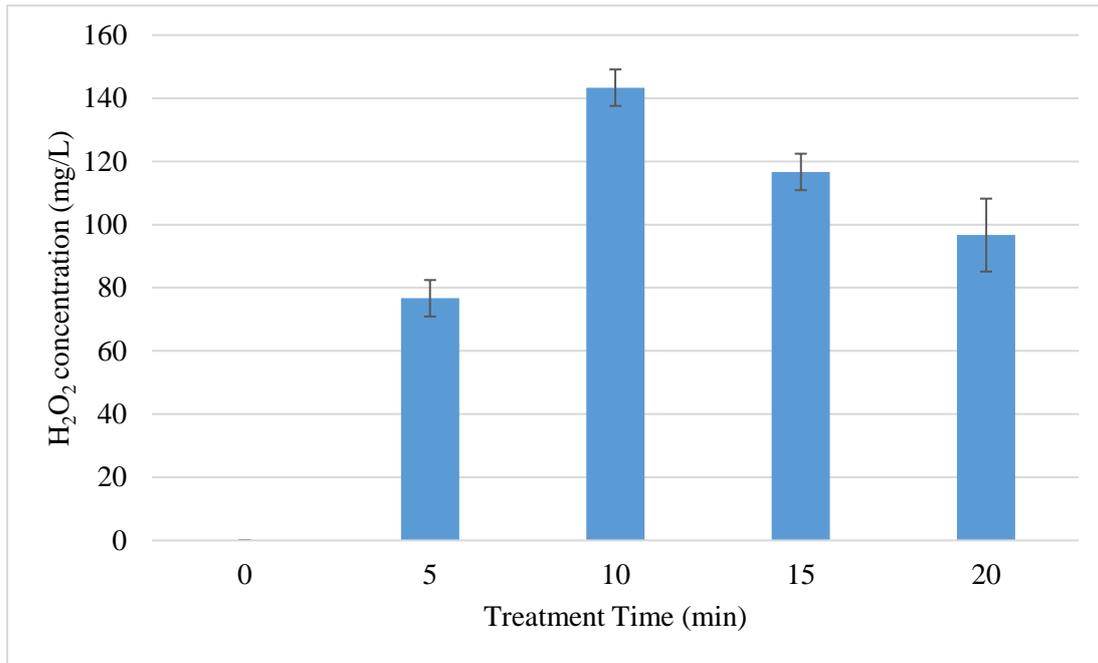
**Figure S1.** The pH values of PAW under different treatment time (n=3 in each group)



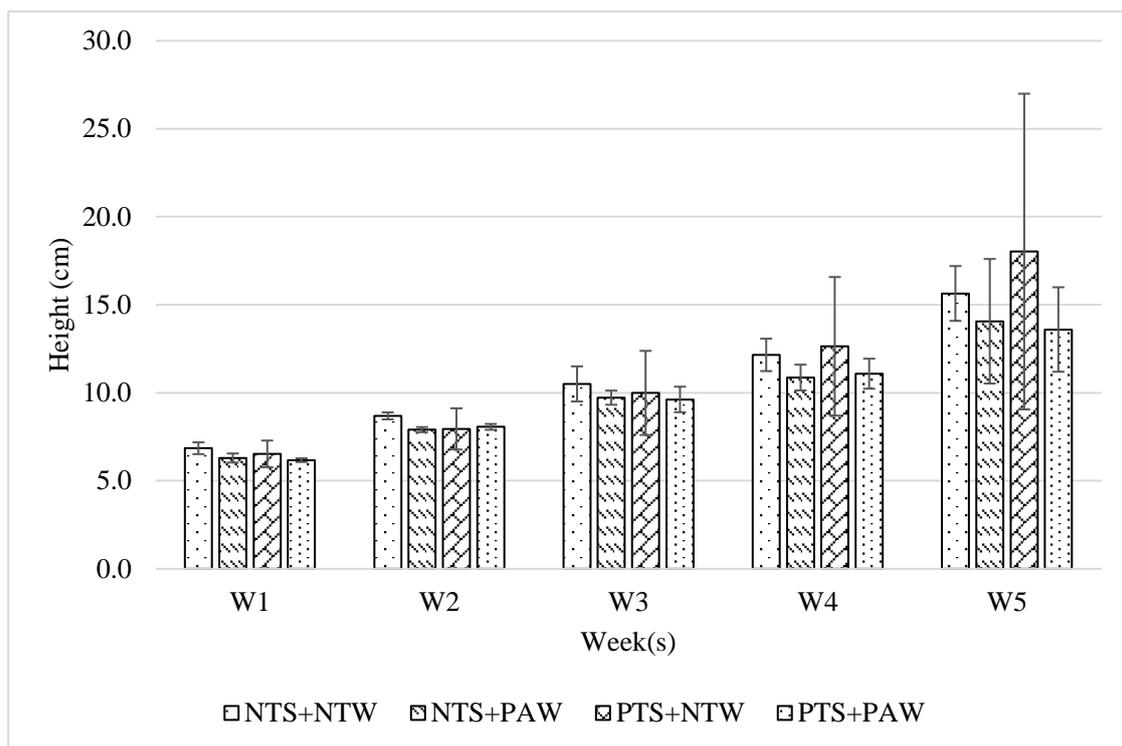
**Figure S1.** The ORP values of PAW under different treatment time (n=3 in each group)



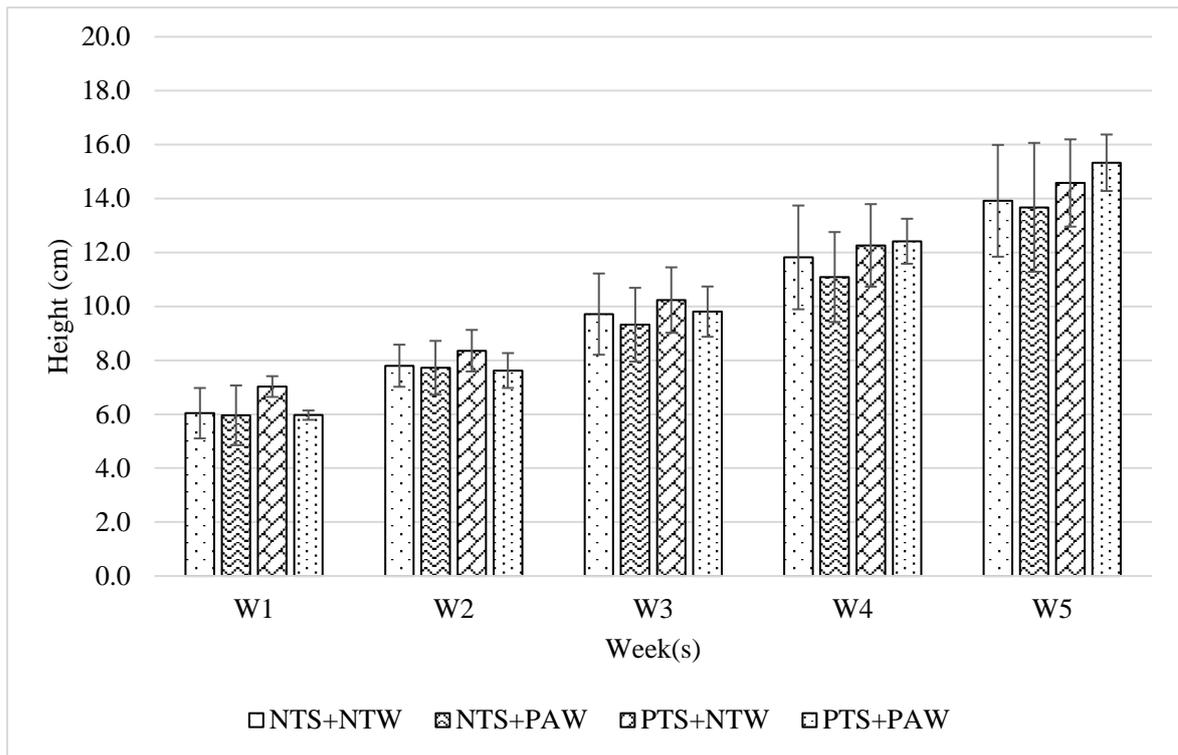
**Figure S2.** The electrical conductivity of PAW under different treatment time (n=3 in each group)



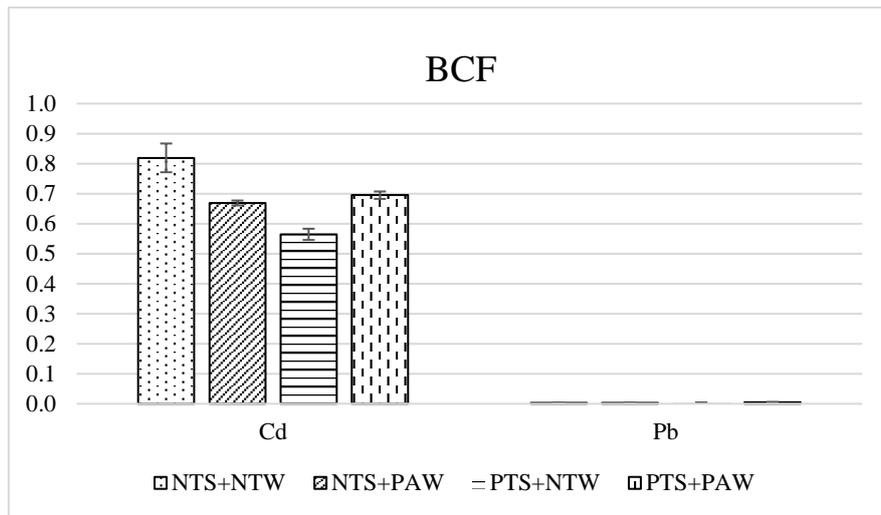
**Figure S4.** Concentration of H<sub>2</sub>O<sub>2</sub> produced in PAW at different treatment time (N=3 for each group)



**Figure S5.** The average height of water spinach planted in Cd-added soil under different treatments



**Figure S6.** The average height of water spinach planted in Pb-added soil under different treatments



**Figure S7.** Bioconcentration factors of Cd and Pb in water spinach