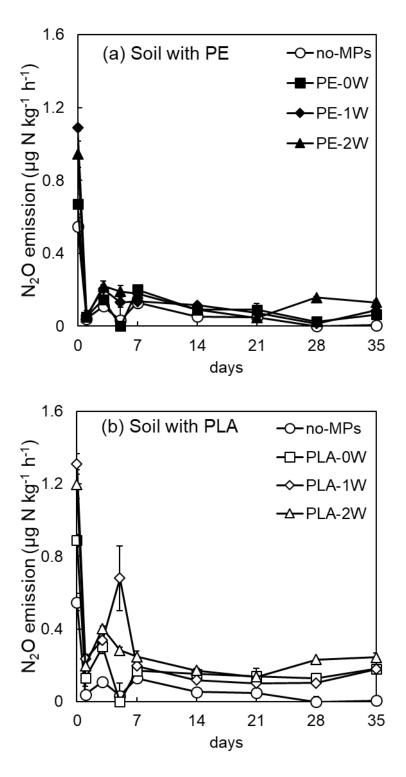


**Figure 1.** CO<sub>2</sub> emissions from soil in different treatments. (a) Soil with PE; (b) Soil with PLA. Abbreviations -0W, -1W, and -2W refer to 0, 1, and 2 weeks of ultraviolet irradiation periods respectively. Error bars indicate  $\pm$  standard deviation (n = 3)



**Figure 2.** N<sub>2</sub>O emissions from soil in different treatments. (a) Soil with PE; (b) Soil with PLA. Abbreviations -0W, -1W, and -2W refer to 0, 1, and 2 weeks of ultraviolet irradiation periods respectively. Error bars indicate  $\pm$  standard deviation (n = 3)

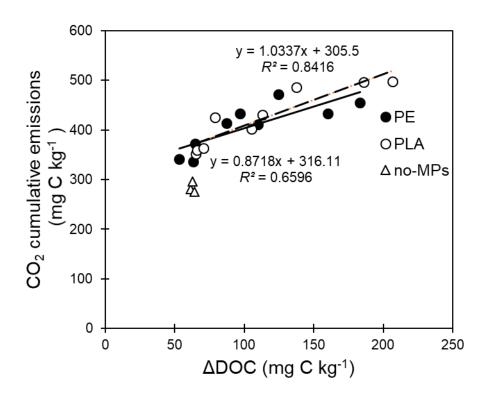


Figure 3. Relationship between  $CO_2$  cumulative emissions and  $\Delta DOC$  during the first period.