Supplementary material

Degradation of bio-based and biodegradable plastics and its contribution to soil organic carbon stock

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Table S1. The statistic parameters of analysis of variance (ANOVA) of the CO_2 emission of treatments during the experiment (corresponds to the Fig. 2). Asterisks indicate significant differences (with * for $p < 0.05$, ** for $p < 0.01$ and *** for $p < 0.001$).

Source	Sum of squares	df	*F*-value	*p*-value
Time	1011400976	13	171.62	< 0.001***
Treatment	70405394	3	516.36	< 0.001***
Time: Treatment	39606137	39	22.34	< 0.001***

Table S2. The statistic parameters of analysis of variance (ANOVA) of the contribution of three fractions in the decomposition rate (plastic, soil, and priming) during the incubation experiment (corresponds to the Fig. 3a). Asterisks indicate significant differences (with * for $p < 0.05$, ** for $p < 0.01$ and *** for $p < 0.001$).

Fraction	Treatment	Time	Treatment * Time
soil	F= 20.30,p<0.001***	F= 22.26,p<0.001***	F=0.82,p>0.05
priming	F=3.66, p>0.05	F=5.59, p<0.001***	F=4.89, p<0.01**
plastic	F=9.08, p<0.01**	F=2.43, p<0.05*	F=15.62, p>0.001***

Table S3. The statistic parameters of analysis of variance (ANOVA) of the proportion of three fractions (plastic, soil, and priming) during the incubation experiment (corresponds to the Fig. 4b). Asterisks indicate significant differences (with * for $p < 0.05$, ** for $p < 0.01$ and *** for $p < 0.001$).

Fraction	Treatment	Time	Treatment * Time
soil	F=0.88, p>0,05	F=1.78, p>0,05	F= 4.76,p<0,01 **
priming	F=2.64, p>0.05	F=3.47, p<0,01 **	F= 5.41,p<0,01 **
plastic	F=5,79,p<0.05 *	F=4,36,p<0.01 **	F=8,38,p<0,001 ***