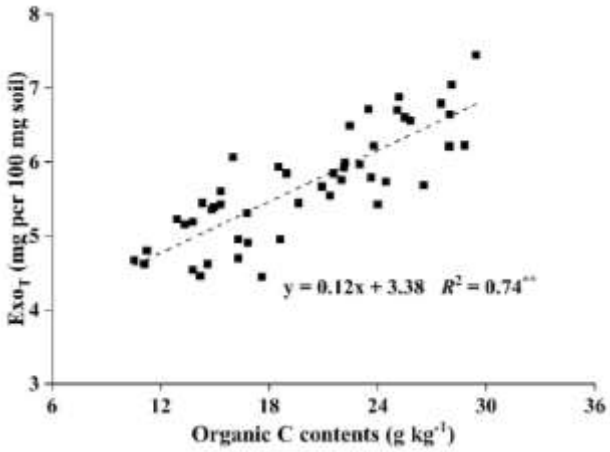
Appendices A The types of fertilizers applied in this study and its carbon and nutrient contents (%).

The types of fertilizer		N	P_2O_5	K_2O	C
Chemical fertilizers	Urea	46.0	–	–	–
	Calcium superphosphate	–	12.0	–	–
	Diammonium phosphate	18.0	46.0	–	–
	Potassium chloride	–	–	60.0	–
	Monopotassium phosphate	–	52.0	34.0	–
Organic fertilizers	Organic manure	2.17	1.39	1.63	21.8
	Corn straw	1.04	0.32	1.69	42.7

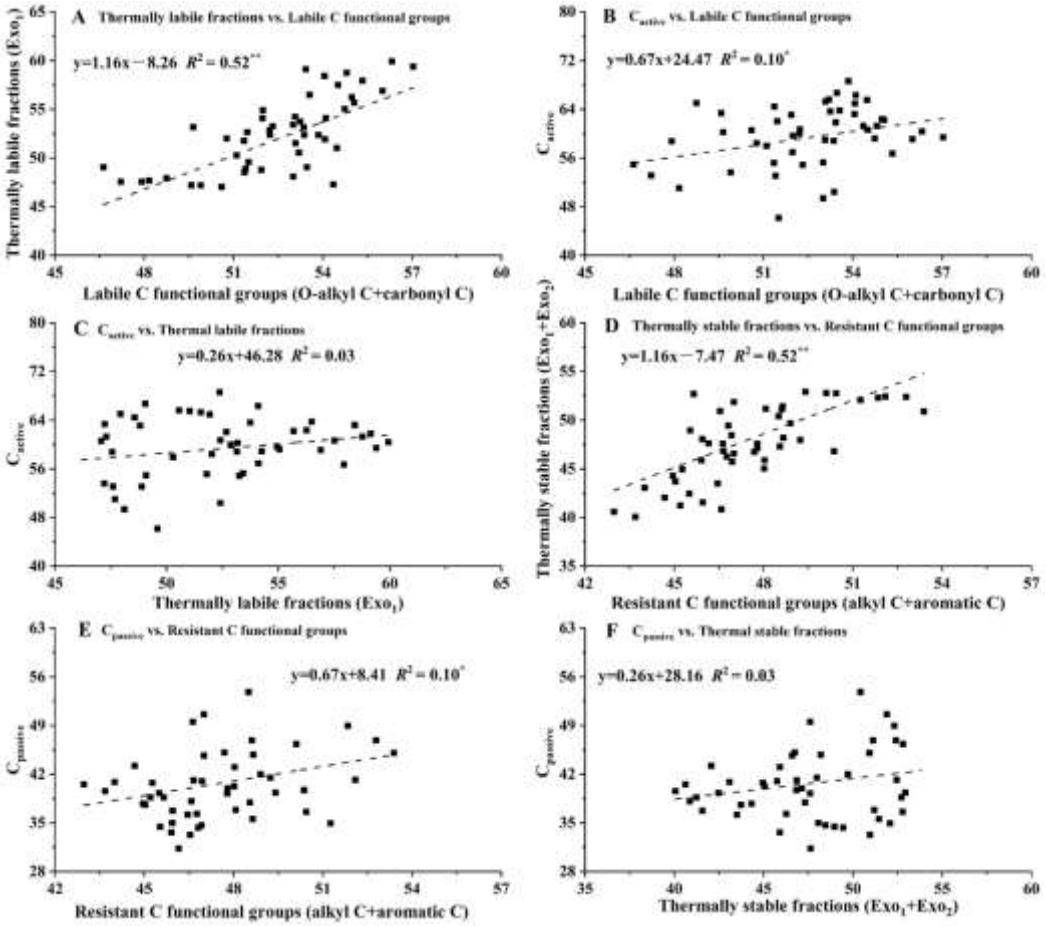


Appendices B Relationships between Exo_T and organic C contents within soil aggregates under different fertilization patterns (n=60). Exo_T, the total mass loss at 150–600 ℃

** indicates significant at P<0.01.

LUAN Hao-an, E-mail: luanhaoan@163.com; YUAN Shuo, E-mail: yuanshuoxx@163.com; Correspondence HUANG Shao-wen, Tel: +86-10-82108662, E-mail: huangshaowen@caas.cn

*These authors contributed equally to this study.



Appendices C Relationships between the proportions of thermally labile/stable fractions, labile/resistant functional groups or C_a/C_p in organic C within aggregates.

** significant at the 0.01 probability level; * significant at the 0.05 probability level.

Appendices D The average rates (%) in the variation of several indices within four aggregates between ORs-amended treatments vs. non-ORs-amended treatment.

		>2 mm	2–0.25 mm	0.25–0.053 mm	<0.053 mm
Chemical indices	LI	4.1	15.6	17.9	6.4
Spectroscopic indices	OA/A	8.0	15.9	13.3	5.3
	AI	14.2	14.7	8.0	7.6
	RI	15.1	18.4	10.2	7.1
Biological indices	BP	144.4	88.7	134.5	58.6
Thermogravimetric indices	TG_{50}	4.9	5.5	5.4	3.4
	TSI	21.6	23.5	26.1	13.5

LI, lability index; OA/A, O-alkyl C/alkyl C; AI, aromaticity index; RI, recalcitrance index; BP, BG/PHOs; TG_{50}, the temperature at which half of the exothermic mass loss has occurred; TSI, thermo-stability index.

[键入文字]