

Supplementary materials

Table S1. Results of three-way ANOVA showing the effects of forest type (FT), N addition (N), decomposition period (DP) and their interactions on biochar decomposition rate and PE rate.

Source	Biochar decomposition rate		PE rate	
	F	<i>P</i>	F	<i>P</i>
FT	3.55	0.033	195.99	< 0.001
NA	67.33	< 0.001	1.40	0.240
DP	4502.22	< 0.001	4.88	0.030
FT × NA	1.19	0.314	10.08	< 0.001
FT × DP	2.14	0.124	99.52	< 0.001
NA × DP	69.89	< 0.001	4.86	0.001
FT × NA × DP	0.933	0.493	7.36	< 0.001

Table S2. Results of two-way ANOVA showing the effects of forest type (FT), N addition (N) and their interactions on cumulative biochar decomposition, cumulative PE and net C balance.

Source	Cumulative biochar decomposition		Cumulative PE		Net C balance	
	F	<i>P</i>	F	<i>P</i>	F	<i>P</i>
FT	3.00	0.060	106.59	< 0.001	104.42	< 0.001
NA	15.49	< 0.001	14.26	< 0.001	13.21	< 0.001
FT × NA	0.33	0.950	4.61	< 0.001	4.52	< 0.001

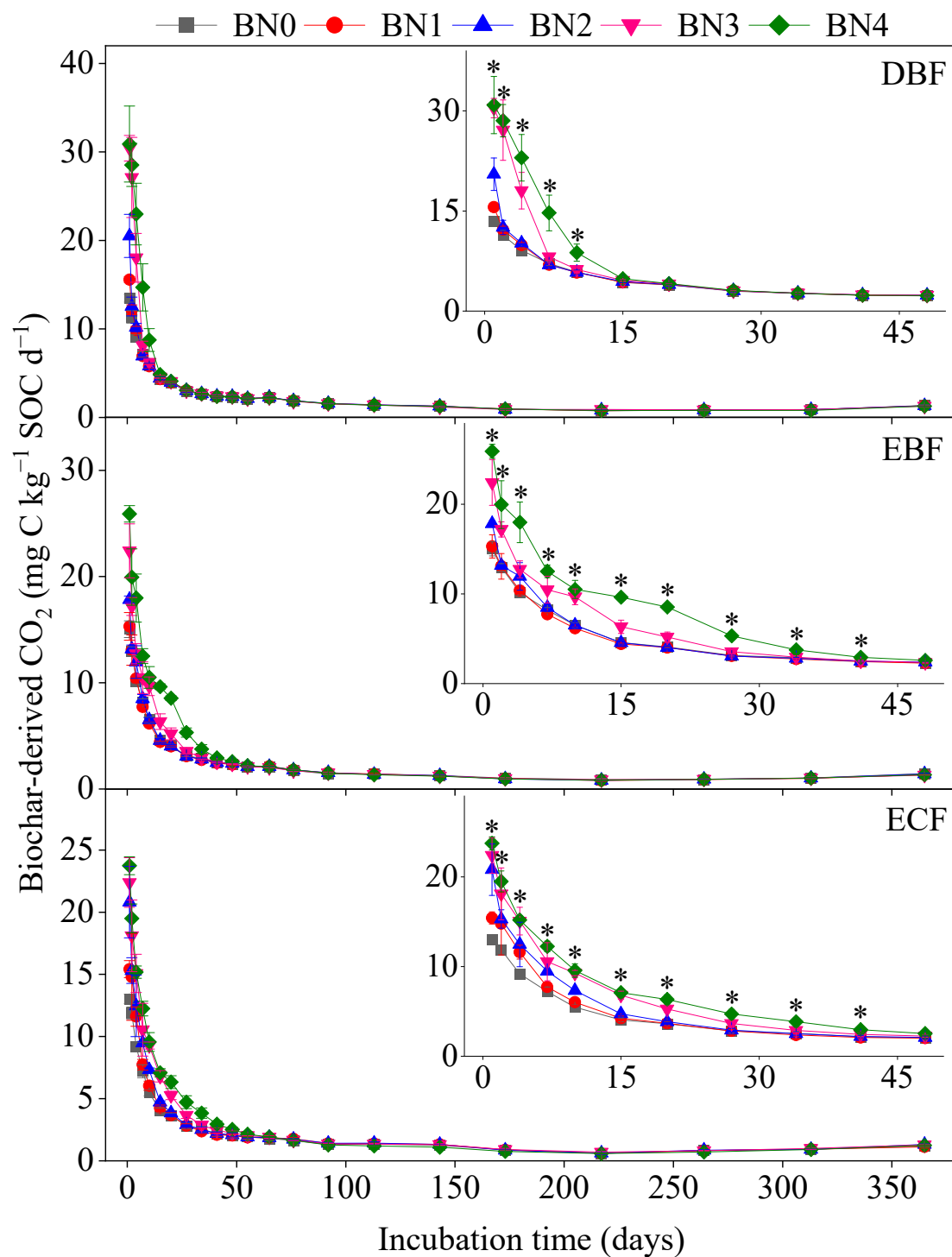


Figure S1. Effect of N addition on the decomposition rate of biochar in three forests.

Bars represent standard errors of the mean (n=4). significant effects of N addition are denoted by asterisks ($p < 0.05$).

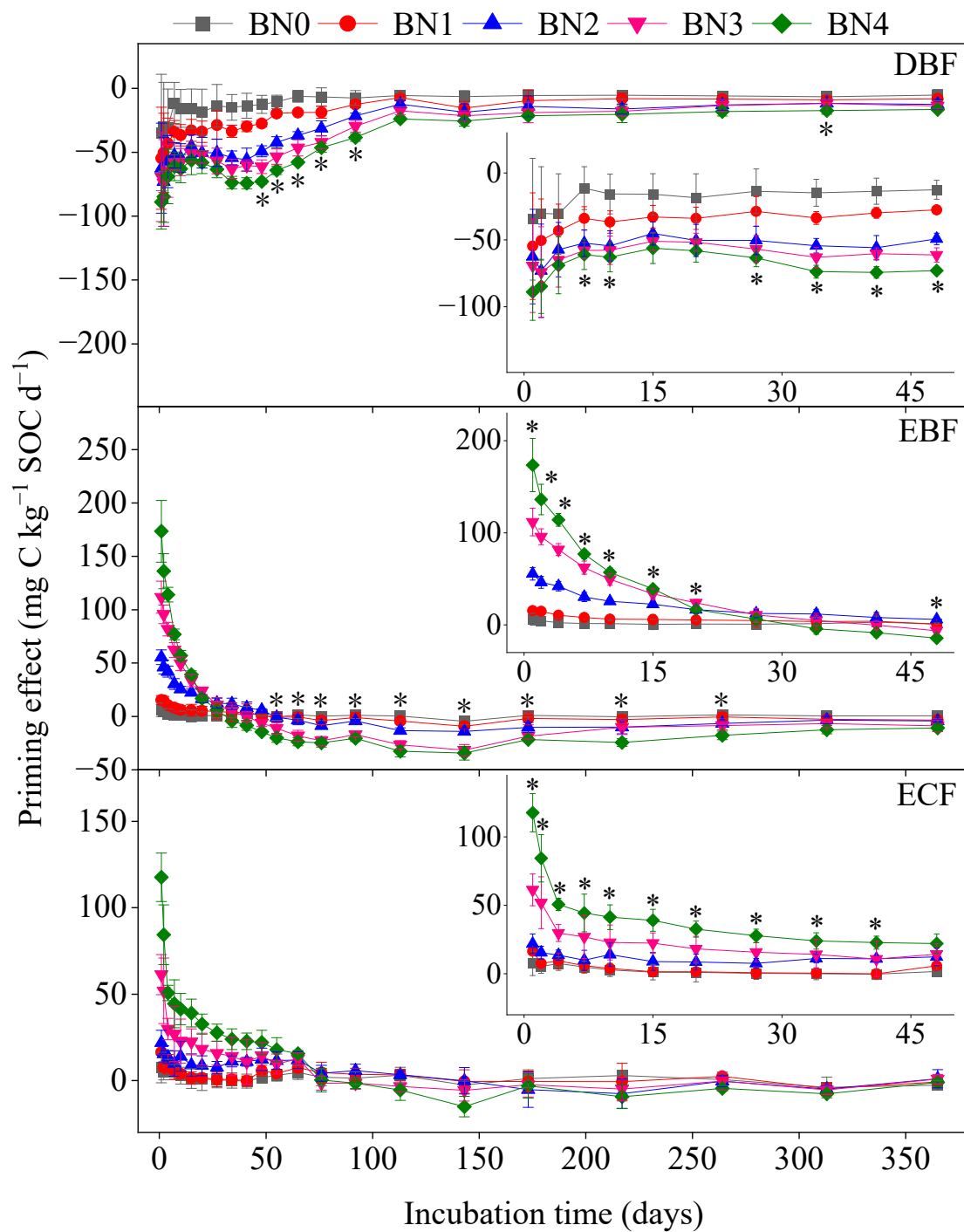


Figure S2. Effect of N addition on the priming effect rate in four forests. Bars represent standard errors of the mean (n=4). significant effects of N addition are denoted by asterisks ($p < 0.05$).