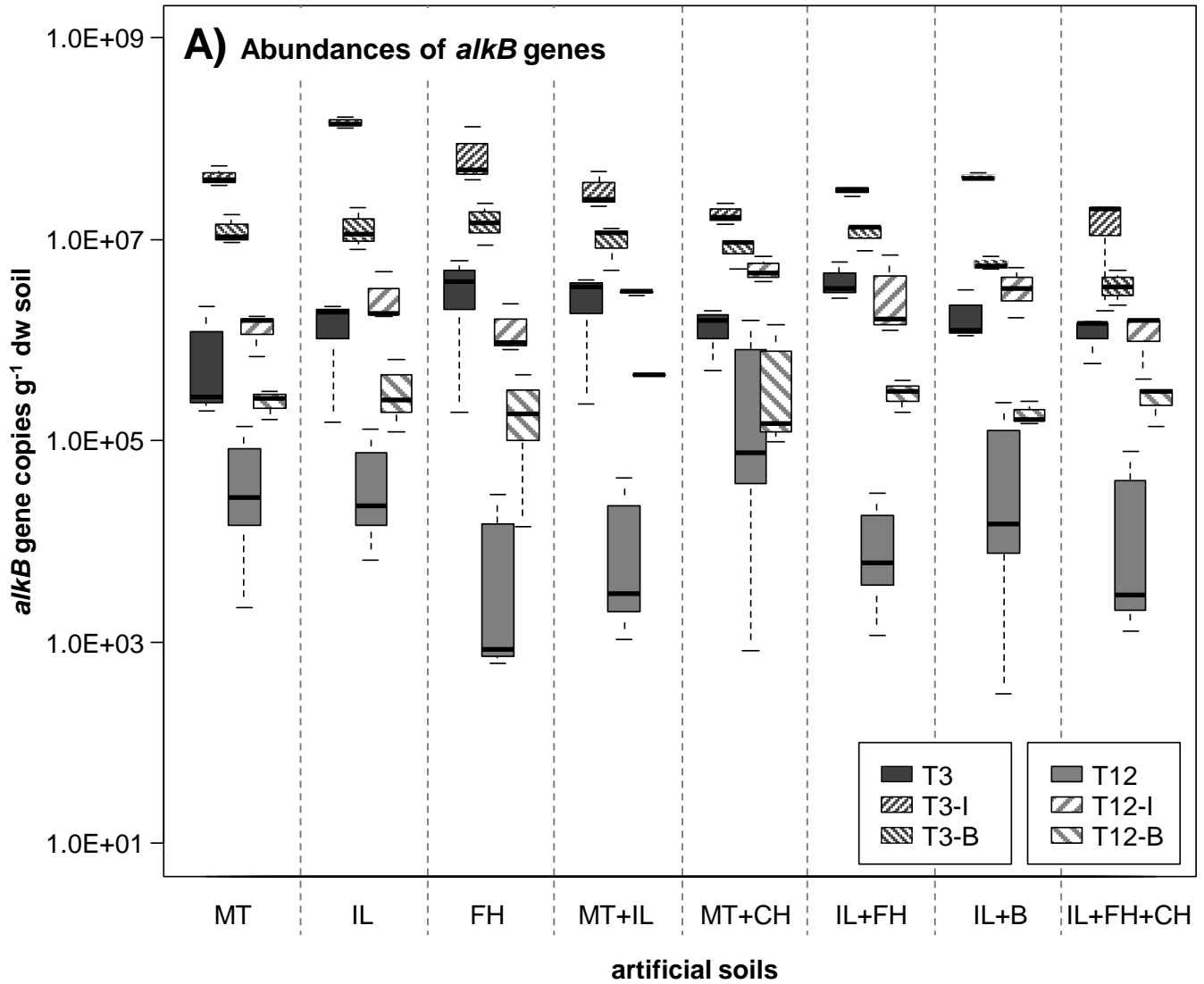


**S2. A) Abundances of *alkB* genes and B) significances of environmental factors to abundance changes of *alkB* harbouring bacterial communities over time in artificial soils with varying components.** Filled boxes indicate *alkB* abundances in the artificial soils after the respective time of maturation (T3: dark grey; T12: light grey). Striped boxes indicate *alkB* abundances in the artificial soils after the incubation with litter in litter-soil interface (T3-I; T12-I) and bulk soil (T3-B; T12-B). Correlations for qPCR results to environmental factors were revealed by multifactorial ANOVA.



**B) Significance of environmental factors correlated with *alkB* abundance**

data set	maturation	addition of litter	soil composition	soil complexity (1 vs. 2 or 3 additional parental materials)	MT in mixture	IL in mixture	CH in mixture	metal oxide in mixture	FH in mixture	B in mixture
T3+T12 (all treatments)	***	***	n.s.	*	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
T3 (all treatments)	-	***	n.s.	**	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
T12 (all treatments)	-	***	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

significance codes: P<0.001 \*\*\*; P<0.01 \*\*; P<0.05 \*; P>0.05 n.s. = not significant; - = not applicable  
all treatments = T3 + T3-I + T3-B and/ or T12 + T12-I + T12-B