



Reference Sample – *Litterfall Beech Leaves (Austria)*

(used in the 15th Needle/Leaf Interlaboratory Test as Sample 4)

Element concentration calculated on dry mass (105°C).

Element (N/L)	Unit	Mean	S _R
N 208/52	mg/g	7.82	0.502
S 183/46	mg/g	0.70	0.079
P 211/53	mg/g	0.53	0.030
Ca 216/54	mg/g	22.73	1.548
Mg 203/51	mg/g	2.32	0.104
K 220/55	mg/g	2.35	0.245
Zn 175/44	µg/g	39.20	2.696
Mn 184/46	µg/g	759.1	34.902
Fe 187/47	µg/g	1799	183.98
Cu 166/42	µg/g	6.23	0.670
Pb 132/33	µg/g	2.25	0.366
Cd 127/32	ng/g	98.63	13.125
B 95/24	µg/g	12.90	0.880
C 184/46	g/100g	47.38	0.921

N Outlier free single values
L Number of laboratories without outliers type 2
Mean ... Total mean value from all results without outliers
S_R ... Standard deviation from all outlier free results

$S_{mean} = \frac{S_R}{\sqrt{N}}$ Standard error of the mean

A homogeneity test was made with 250 mg sample material – the recommended minimum sample intake is therefore 250 mg.