

Table 1 Suppl. The sequences of the Operon Primers type B (OPB) utilised, which were synthesised by *Sigma-Aldrich* (St. Louis, MI, USA).

Names	Sequences 5' → 3'
OPB-1	GTTTCGCTCC
OPB-2	TGATCCCTGG
OPB-4	GGACTGGAGT
OPB-5	TGCGCCCTTC
OPB-6	TGCTCTGCCC
OPB-7	GGTGACGCAG
OPB-8	GTCCACACGG
OPB-9	TGGGGGACTC
OPB-10	CTGCTGGGAC
OPB-11	GTAGACCCGT
OPB-12	CCTTGACGCA
OPB-13	TTCCCCCGCT

Table 2 Suppl. F-values and significance of two-way *ANOVA* with X-ray doses (D) and leaf type (L) as main factors, and their interaction (D × L) for all anatomical and physiological traits measured (LA - leaf area; LT - lamina thickness; CAUE - cell area of upper epidermis; CAPP - cell area of palisade parenchyma; CASP - cell area of spongy parenchyma; CALE - cell area of lower epidermis; ARUE - aspect ratio in upper epidermis; ARPP - aspect ratio in palisade parenchyma; ARSP - aspect ratio in spongy parenchyma; ARLE - aspect ratio in lower epidermis; COUE - convexity in upper epidermis; COPP - convexity in palisade parenchyma; COSP - convexity in spongy parenchyma; COLE - convexity in lower epidermis; PC - phenolic compounds; Φ_{PS2} - quantum yield of photosystem 2 linear electron transport; F_v/F_m - maximum efficiency of photosystem 2 photochemistry; Chl *a+b* - total content of chlorophyll).

Parameters	D F	P	L F	P	D × L F	P
LA	2.49	0.042	5.67	0.021	0.86	0.511
LT	11.23	0.000	125.67	0.000	5.03	0.000
CAUE	5.03	0.000	40.38	0.000	2.68	0.021
CAPP	46.80	0.000	259.45	0.000	11.51	0.000
CASP	10.66	0.000	78.57	0.000	2.47	0.031
CALE	2.21	0.052	31.18	0.000	1.05	0.390
ARUE	2.39	0.037	0.10	0.752	1.76	0.120
ARPP	13.70	0.000	16.04	0.000	7.12	0.000
ARSP	0.52	0.759	0.00	0.989	1.17	0.320
ARLE	2.87	0.014	0.16	0.686	1.33	0.249
COUE	2.96	0.012	3.47	0.063	3.38	0.005
COPP	1.40	0.224	1.07	0.301	2.81	0.016
COSP	5.31	0.000	0.63	0.429	1.74	0.123
COLE	1.14	0.337	5.62	0.018	1.30	0.263
PC	7.48	0.000	17.79	0.000	0.85	0.514
Φ_{PS2}	64.31	0.000	1.69	0.202	3.82	0.007
F_v/F_m	37.54	0.000	1.73	0.197	3.77	0.008
Chl <i>a+b</i>	10.69	0.000	0.01	0.939	5.94	0.000

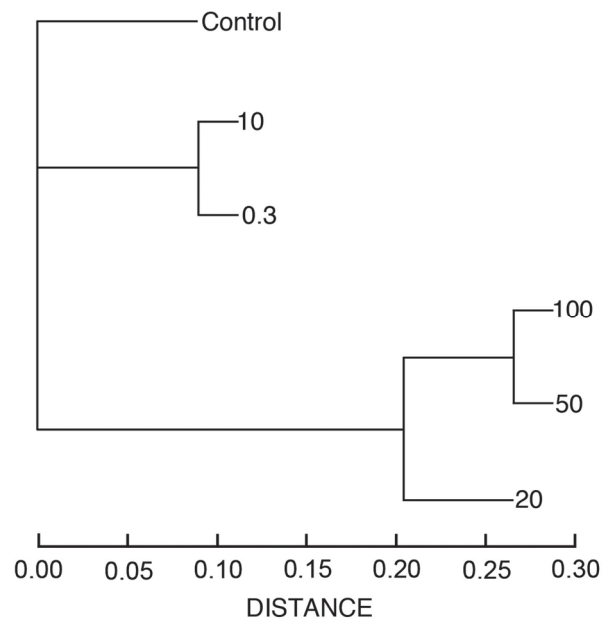


Fig. 1 Suppl. A dendrogram, created by using the unweighted pair group method with arithmetic mean (UPGMA) algorithm, based on polymorphic DNA amplification bands of developing (L2) leaves of *Solanum lycopersicum* L. cv. Microtom irradiated with different doses of X-rays.