

Table a1. Pigment composition of leaf tissue from WT and mutant genotypes, both dark adapted, and after light stress (1200 $\mu\text{mol m}^{-2} \text{s}^{-1}$, 20' at RT).

Data are normalized to 100 Chl *a+b* molecules, and are expressed as mean \pm SD, n=3. See Methods for details. Abbreviations: beta, β -carotene. nd, not detected.

Genotypes		Chl a/b	Chl/Car	Neo	Viola	Anthera	Lute	Zea	beta-Car
dark-adapted leaves	WT	3.1 \pm 0.1	3.4 \pm 0.1	5.7 \pm 0.6	3.3 \pm 0.1	nd	11.8 \pm 0.1	nd	8.7 \pm 0.4
	<i>lut2.1</i>	3.6 \pm 0.1	3.5 \pm 0.1	5.3 \pm 0.5	9.8 \pm 0.8	0.9 \pm 0.1	nd	0.3 \pm 0.1	12.2 \pm 0.1
	<i>npq1</i>	3.1 \pm 0.1	4.5 \pm 0.2	4.4 \pm 0.3	2.6 \pm 0.3	nd	9.6 \pm 0.9	nd	8.2 \pm 0.1
	<i>npq1 lut2.1</i>	3.6 \pm 0.1	3.6 \pm 0.1	4.9 \pm 0.1	9.2 \pm 0.3	0.8 \pm 0.3	nd	0.4 \pm 0.1	12.8 \pm 0.2
light-treated leaves (20', 1200 $\mu\text{mol m}^{-2} \text{s}^{-1}$)	WT	3.1 \pm 0.1	3.4 \pm 0.1	5.1 \pm 0.3	1.4 \pm 0.1	0.4 \pm 0.1	12.2 \pm 0.2	1.7 \pm 0.1	8.9 \pm 0.3
	<i>lut2.1</i>	3.5 \pm 0.1	3.6 \pm 0.1	4.3 \pm 0.6	4.7 \pm 0.1	1.3 \pm 0.2	nd	5.1 \pm 0.1	12.6 \pm 0.2
	<i>npq1</i>	3.1 \pm 0.1	4.3 \pm 0.1	4.4 \pm 0.3	2.6 \pm 0.3	nd	9.7 \pm 0.8	nd	8.1 \pm 0.4
	<i>npq1 lut2.1</i>	3.6 \pm 0.1	4.2 \pm 0.1	5.0 \pm 0.7	9.6 \pm 0.1	0.9 \pm 0.3	nd	0.4 \pm 0.1	11.0 \pm 0.9