



Figure S8. qE-dependent NPQ and maximum quantum yield in WT, S26A/S28A, T32A/T33A, T32E/T33E, R10 (equivalent to R4) and npq4

NPQ was measured after 24 h at $200 \mu\text{mol photons m}^{-2} \text{s}^{-1}$ (A). The maximum quantum yield (F_v/F_m) was measured prior to and following 24 h at $200 \mu\text{mol photons m}^{-2} \text{s}^{-1}$ (B). Prior to the high light exposure, cultures were shifted to HSM and adjusted to $8 \mu\text{g mL}^{-1}$ chlorophyll. Before the measurements, cells were dark adapted for at least 10 min. The amplitude of the fast-relaxing NPQ component was assessed within the first 30 s of darkness following 3.5 min at $800 \mu\text{mol photons m}^{-2} \text{s}^{-1}$. Data points represent means \pm SEM of 3 biological replicates.