

Table S9 Summary of the OJIP test parameters used in this study

Group	Symbols	Meaning
Extracted fluorescence parameters	F _o	Minimal fluorescence intensity
	F _m	Maximal fluorescence intensity
	F _v	Maximal variable fluorescence
Phenomenological energy fluxes	ABS/RC	Absorbed energy flux in antenna chlorophylls per PSII reaction center (a measure of PSII apparent antenna size)
	D _{Io} /RC	Heat dissipation of excitation energy by PSII reaction center
	T _{Ro} /RC	Trapped energy flux per RC
	E _{To} /RC	Electron transport flux further than QA ⁻ per PSII reaction center
	R _{Eo} /RC	Electron flux reducing end electron acceptors at the PSI acceptor side, per PSII reaction center
	ABS/CS _m	Absorption flux of photons per leaf cross-section (CS)
	D _{Io} /CS _m	Dissipation flux per CS
	T _{Ro} /CS _m	Maximal trapping rate of excitons per CS
	E _{To} /CS _m	Electron transport per CS
	R _{Eo} /CS _m	Reduction of end acceptors per CS
Performance index	RC/CS _o	Density of active PSII reaction centers
	PI _{ABS}	Performance index (potential) for energy conservation from photons absorbed by PSII to the reduction of intersystem electron acceptors
	PI _{Total}	Performance index on CS