Description	Label	Units	Formula
Net CO_2 assimilation rate	A_{Net}	µmol m^{-2} s^{-1}	$A = \frac{Flow(CO_{2_R} - CO_{2_S}\left(\frac{1000 - H_2O_R}{1000 - H_2O_S}\right))}{100S}$ $Flow$: air flow rate (µmol s^{-1}) CO_{2_R}: reference cell CO_2 concentration (µmol mol^{-1}) CO_{2_S}: sample cell CO_2 concentration (µmol mol^{-1}) H_2O_R: reference cell H_2O mole fraction (mmol mol^{-1}) H_2O_S: sample cell H_2O mole fraction (mmol mol^{-1}) S: leaf area in cm^2
Transpiration rate	E	mol m^{-2} s^{-1}	$E = \frac{Flow(H_2O_S - H_2O_S)}{1000S(1000 - H_2O_S)}$
Stomatal conductance to water vapor	g_{sw}	mol m^{-2} s^{-1}	$g_{sw} = \frac{2}{\left(\frac{1}{g_{tw}} - \frac{1}{g_{bw}}\right) + \sqrt{(\frac{1}{g_{tw}} - \frac{1}{g_{bw}})^2 + \frac{4K}{(K+1)^2}(2\frac{1}{g_{tw}} - \frac{1}{g_{bw}})\frac{1}{g_{bw}}}}$ g_{tw}: total conductance of the leaf to water vapor (mol m^{-2} s^{-1}) g_{bw}: boundary layer conductance to water vapor (mol m^{-2} s^{-1}) K: stomatal ratio
Intercellular CO_2	C_i	µmol mol^{-1}	$C_i = \frac{\left(g_{tc} - \frac{E}{2}\right)CO_{2_S} - A}{g_{tc} + \frac{E}{2}}$
Maximal chlorophyll fluorescence, dark-adapted leaves	F_m		
Maximal chlorophyll fluorescence, light-adapted leaves	F_m'		
Minimal chlorophyll fluorescence, dark-adapted leaves	F_o		
Minimal chlorophyll fluorescence, light-adapted leaves	F_o'		
Steady state fluorescence	F_s		
Variable chlorophyll fluorescence	F_v		$F_V = F_m - F_o$
PSII maximum efficiency in dark-adapted leaves	F_v/F_m		$F_v/F_m = F_v/F_m = 1 - \frac{F_o}{F_m}$
Non-photochemical quenching	NPQ		$NPQ = \frac{(F_m - F_m')}{F_m'}$
Estimated NPQ	$NPQ_{(T)}$		$NPQ_{(T)} = \left(\frac{4.88}{\frac{F_m'}{F_o'} - 1}\right) - 1$
PSII operating efficiency	ΦPSII		$\Phi PSII = 1 - \frac{F_s}{F_m'}$
Electron transport rate	ETR	µmol m^{-2} s^{-1}	$ETR = (\Phi PSII)(0.5)(Qabs_{fs})$ $Qabs_{fs}$: absorbed light corresponding to the last F_s measurement
Fraction of open PSII centers	q_L		$q_L = q_P * \frac{F_o'}{F_s}$
Plastoquinone redox status	Q_A		$Q_A = 1 - q_L$