Developing mathematical model for diurnal dynamics of photosynthesis in *Saccharum officinarum* responsive to different irrigation and silicon application

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Fig. 1S: Model constants for photosynthesis (A-C), stomatal conductance (D-F) and transpiration rate (G-I).
Cumulative time (h) – Control

Cumulative time (h) – Mild stress
Fig. 2S: Cumulative diurnal variation of photosynthesis ($P_N$, µmol CO$_2$ m$^{-2}$s$^{-1}$) in *Saccharum officinarum* plant leaves under control (A-D) and limited water supply [mild (E-H), moderate (I-L), and severe stress (M-P)] with different silicon levels (0, 100, 300 and 500 mg L$^{-1}$) application. $S =$ standard error, $r =$ correlation coefficient.
Fig. 3S: Cumulative diurnal variations of transpiration rate ($E$, mmol CO$_2$ m$^{-2}$s$^{-1}$) in Saccharum officinarum plant leaves under control (A-D) and limited water supply (mild (E-H), moderate (I-L), and severe stress (M-P)) with different levels of silicon (0, 100, 300 and 500 mg L$^{-1}$) application. $S$ = standard error, $r$ = correlation coefficient.
Fig. 4: Cumulative diurnal variations of stomatal conductance (gs, mmol H₂O m⁻² s⁻¹) in *Saccharum officinarum* plant leaves under control (A-D) and limited water supply [mild (E-H), moderate (I-L), and severe stress (M-P)] with different levels of silicon (0, 100, 300 and 500 mg L⁻¹) application. S = standard error, r = correlation coefficient.