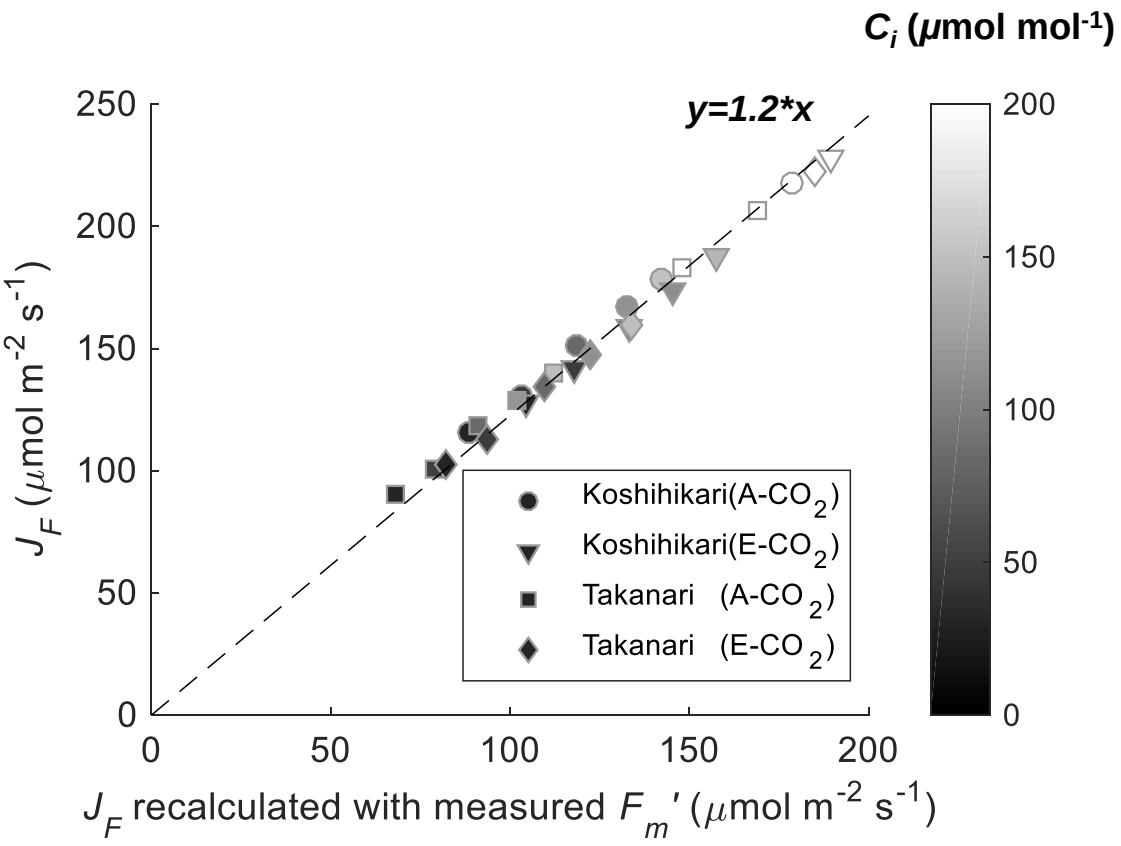

Fig. S1 Electron transport rate based on the fluorometry (J_F) calculated by the multiphase flash (MPF) method (Loriaux et al., 2013) on the y-axis and J_F based on the maximum fluorescence under illumination (F_m') measured at the peak flash under photosynthetic photon flux density (PPFD) at 1,500 μmol m^{-2} s^{-1} on the x-axis. The gray scale bar shows intercellular CO_2 concentration (C_i). Any bias in the MPF method as compared with the traditional J_F estimation may be detected as a deviation from the regression through the origin of the plot. Data were collected on August 18, 2017.

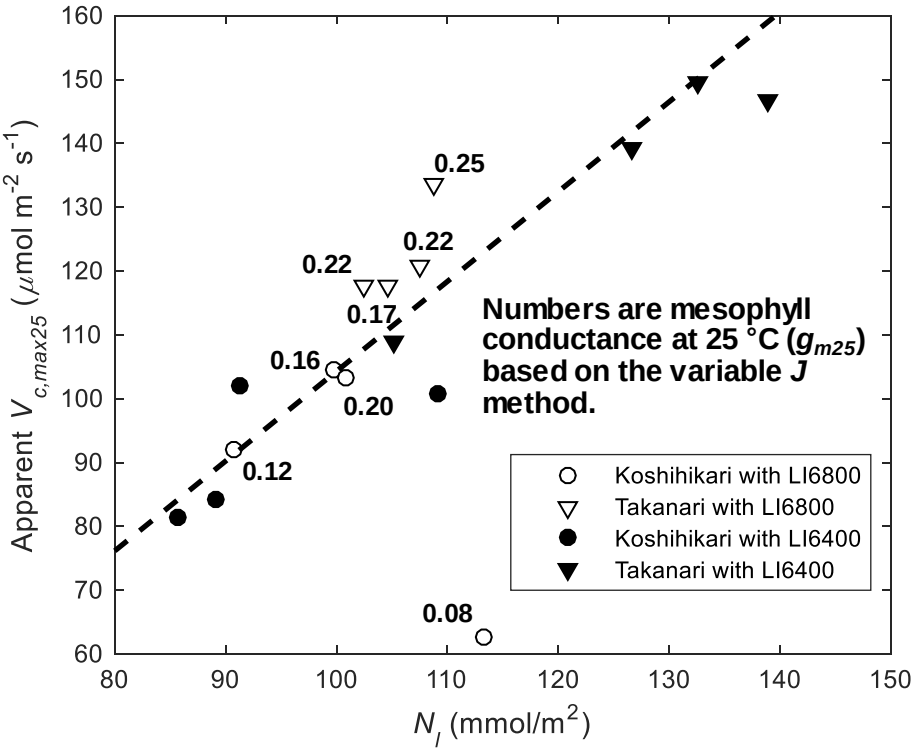

Fig. S2 Maximum carboxylation rate calculated assuming mesophyll conductance was infinite (apparent $V_{c,max25}$) in relation to leaf nitrogen content (N_l). The relationship between apparent $V_{c,max25}$ and N_l did not differ between those measured by LI-6400 (black) and by LI-6800 (white) even after one outlier point (g_{m25} = 0.08) was removed ($\boldsymbol{p}$ = 0.1). The data were independently collected at the heading stage (August 4–7) in 2017.