



**Fig. S6.** Dependence of rETR (A), ECSt (B),  $g_{\text{H}^+}$  (C), and  $V_{\text{H}^+}$  (D) on photon flux density at steady-state photosynthesis in Tak-1 (black circles),  $\Delta\text{MpFlv1}$  (red triangles), and  $\text{cMpFlv1}$  (blue diamonds). Measurements were taken in ambient air. Calculation of rETR was conducted using the data from Fig. 4A. Data are represented as the mean  $\pm$  SD of three independent measurements. Differences between Tak-1 and  $\Delta\text{MpFlv1}$  were analyzed using Student's  $t$ -test. Asterisks indicate statistically significant differences between Tak-1 and  $\Delta\text{MpFlv1}$  at  $p < 0.05$ .