

Supplementary materials

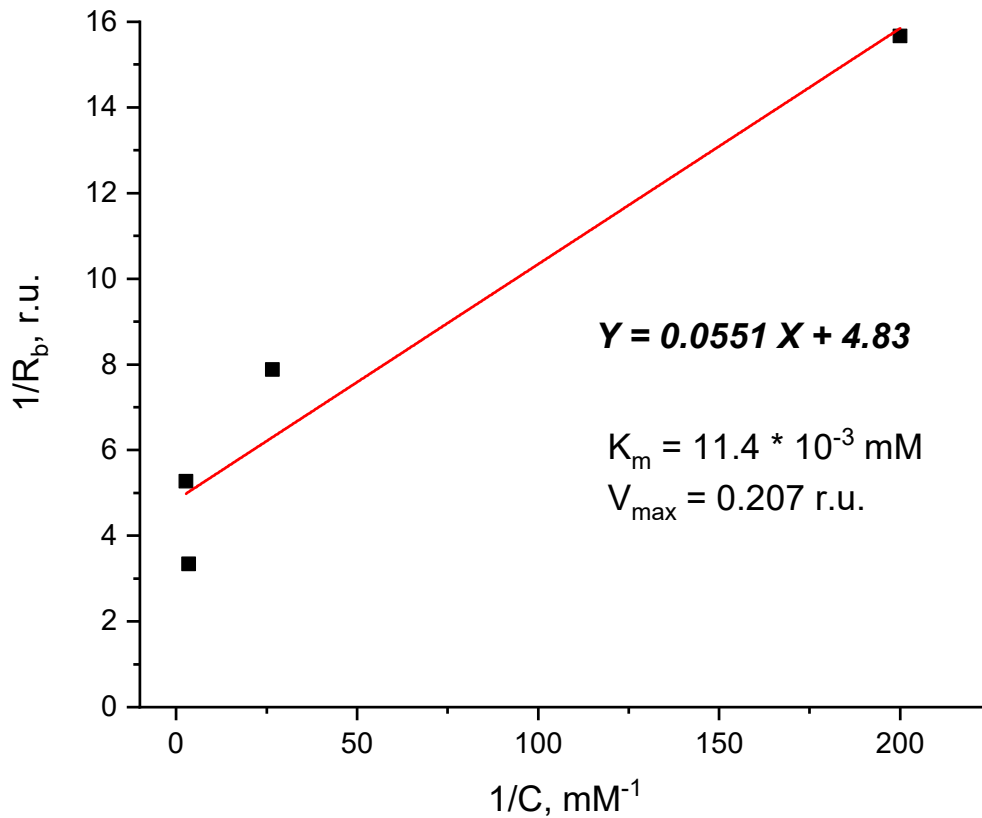


Figure S1. **The Lineweaver and Burk plot for the rate  $R_b$  (6-30 ms) of O-J-I-P transient vs the substrate ( $\text{HCO}_3^-$ ) concentration, obtained for thylakoids preparation.** The concentrations of bicarbonate (C) in the sample were 5, 38, 288 and 365  $\mu\text{M}$ . I used the equation of the line plot to calculate  $K_m$  and  $V_{\text{max}}$  (which are also shown in Table 2 in the main text). The final concentration of thylakoids preparation was 10 ( $\mu\text{g Chl}$ ) $\cdot\text{mL}^{-1}$ . Each point was an average of at least 3 separate experiments with calculated SD.

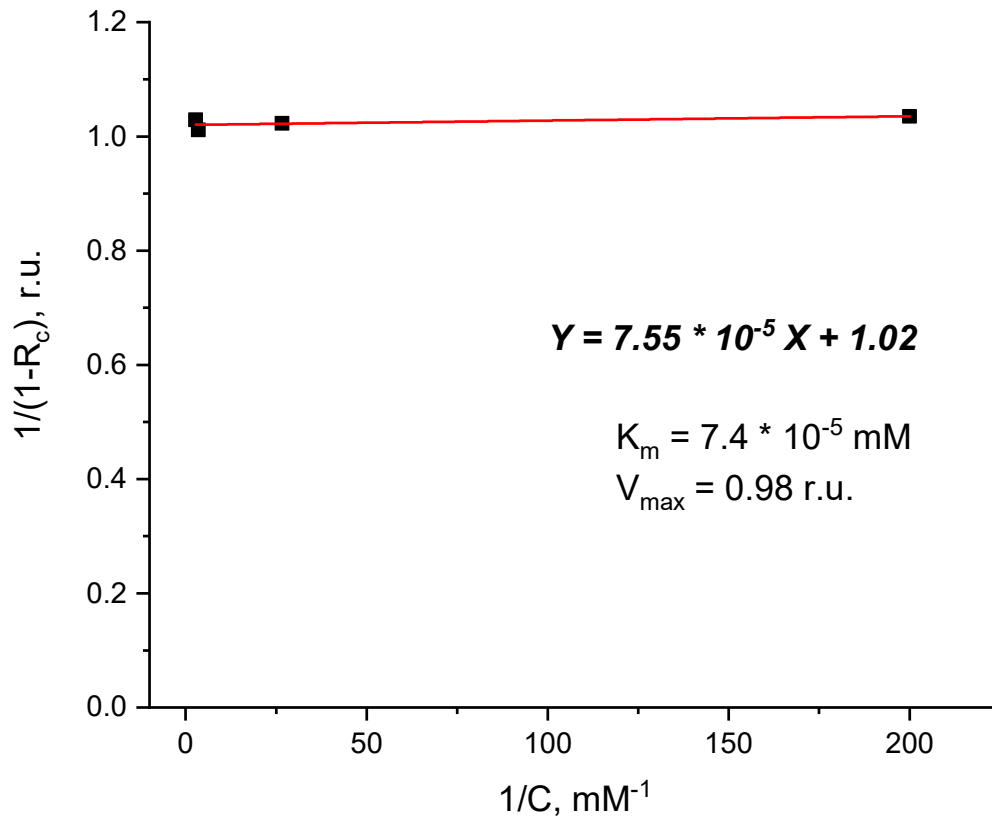


Figure S2. **The Lineweaver and Burk plot for the rate  $1-R_c$  (400-800 ms) of O-J-I-P transient vs the substrate ( $\text{HCO}_3^-$ ) concentration, obtained for thylakoids preparation.** The concentrations of bicarbonate (C) in the sample were 5, 38, 288 and 365  $\mu\text{M}$ . I used the equation of the line plot to calculate  $K_m$  and  $V_{\text{max}}$  (which are also shown in Table 2 in the main text). The final concentration of thylakoids preparation was 10 ( $\mu\text{g Chl}$ ) $\cdot\text{mL}^{-1}$ . Each point was an average of at least 3 separate experiments with calculated SD.

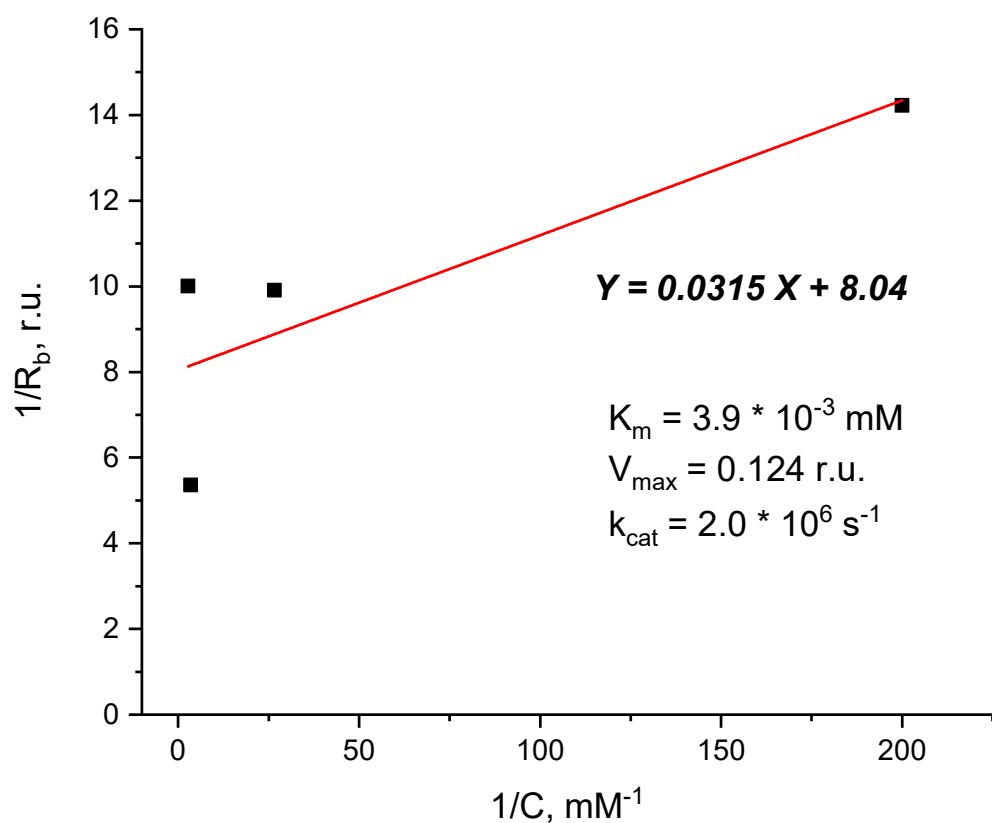


Figure S3. **The Lineweaver and Burk plot for the rate  $R_b$  (6-30 ms) of O-J-I-P transient vs the substrate ( $\text{HCO}_3^-$ ) concentration, obtained for BBY preparation.** The concentrations of bicarbonate (C) in the sample were 5, 38, 288 and 365  $\mu\text{M}$ . I used the equation of the line plot to calculate  $K_m$  and  $V_{\text{max}}$  (which are also shown in Table 2 in the main text). The final concentration of BBY preparation was 10 ( $\mu\text{g Chl}$ ) $\cdot\text{mL}^{-1}$ . Each point was an average of at least 3 separate experiments with calculated SD.

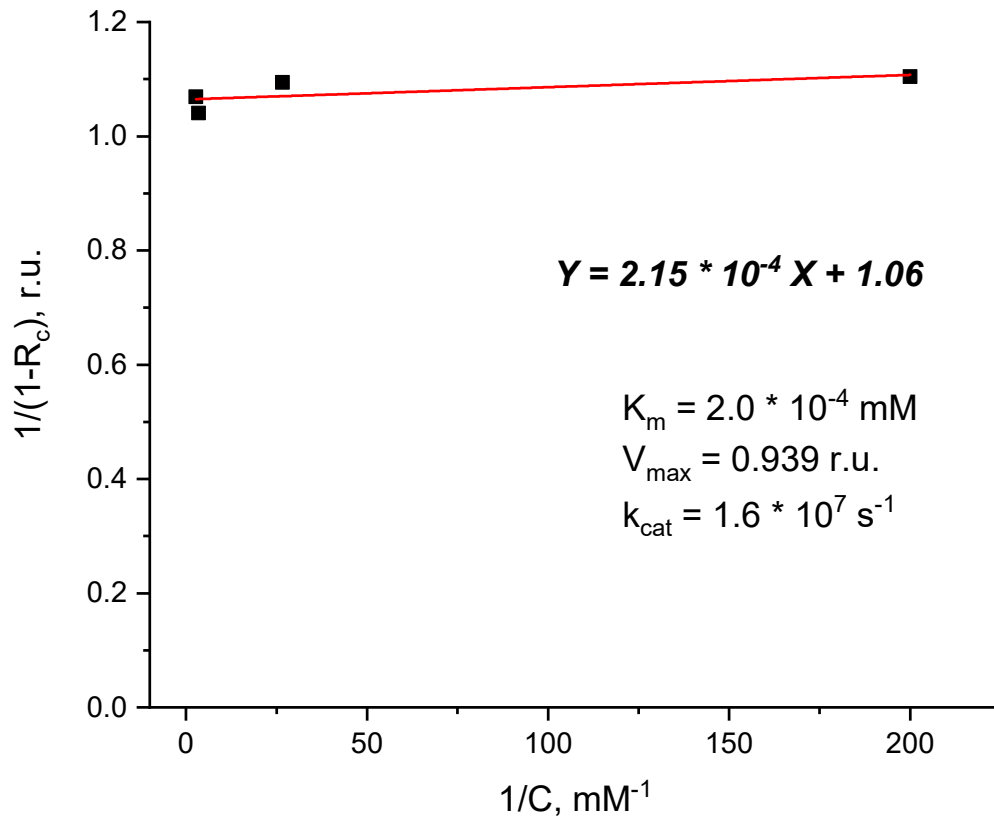


Figure S4. **The Lineweaver and Burk plot for the rate  $1-R_c$  (400-800 ms) of O-J-I-P transient vs the substrate ( $\text{HCO}_3^-$ ) concentration, obtained for BBY preparation.** The concentrations of bicarbonate (C) in the sample were 5, 38, 288 and 365  $\mu\text{M}$ . I used the equation of the line plot to calculate  $K_m$  and  $V_{\max}$  (which are also shown in Table 2 in the main text). The final concentration of BBY preparation was 10 ( $\mu\text{g Chl}$ ) $\cdot\text{mL}^{-1}$ . Each point was an average of at least 3 separate experiments with calculated SD.