

**Figure 1.** The relationship between the turnover rate for the Rubisco carboxylase reaction ( $k_{\text{cat}}^c$ ) with (A) the Michaelis–Menten affinity constant for  $\text{CO}_2$  ( $K_c$ ) and (B) the  $\text{CO}_2/\text{O}_2$  specificity factor ( $S_{c/o}$ ). Filled symbols correspond to  $\text{C}_3$  species at 15 °C ( $\blacktriangle$ ), 25 °C ( $\bullet$ ) and 35 °C ( $\blacktriangledown$ ); open symbols correspond to  $\text{C}_4$  species at 15 °C ( $\triangle$ ), 25 °C ( $\circ$ ) and 35 °C ( $\triangledown$ ). Each symbol represents the average value of a single species per temperature interaction.

