



*Fig. 1.* Diagram of the model for oxygen evolution rate as a function of Photosystem II excitation rate.  $k_{ij}$  denotes the rate constants for transition from state  $S_i$  to state  $S_j$ .  $k_{01}$ ,  $k_{12}$ ,  $k_{23}$  and  $k_{34}$  are all equal to the excitation rate  $I_a$ .