# S9 Text. Sensitivity analysis estimate *V*cmax to *R*d

The aim of this supplementary text is to investigate to what extent the estimate of *V*cmax is affected by *R*d. We used the model to estimate *V*cmax for a range of values for *R*d (1.0 μmol m-2 s-1 <*R*d <5.0 μmol m-2 s-1; Δ*R*d = 0.5 μmol m-2 s-1) for each scenario; (photo)respiratory CO­2 is either released in the inner cytosol, the outer cytosol or in the cytosol gaps. Table A shows the estimates of *V*cmax for each combination of *R*d value and scenario:

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| **Table A:** Estimates of *V*cmax and their standard errors for different assumed values of *R*d and different scenarios (i.e. (photo)respiratory CO2 release in inner cytosol, outer cytosol or in cytosol gaps).  |
| *R*d(μmol m-2 s-1) | Estimated *V*cmax (μmol m-2 s-1)  |
|  |  |  |  |
|  | Inner cytosol | Outer cytosol | Cytosol gaps |
| 1.0 | 153 ± 37 | 177 ± 160 | 190 ± 34 |
| 1.5 | 158 ± 35 | 177 ± 179 | 198 ± 31 |
| 2.0 | 162 ± 33 | 177 ± 198 | 205 ± 29 |
| 2.5 | 166 ± 32 | 177 ± 218 | 212 ± 28 |
| 3.0 | 170 ± 30 | 177 ± 237 | 220 ± 28 |
| 3.5 | 175 ± 28 | 177 ± 257 | 228 ± 30 |
| 4.0 | 178 ± 27 | 177 ± 277 | 236 ± 32 |
| 4.5 | 183 ± 25 | 178 ± 297 | 244 ± 36 |
| 5.0 | 187 ± 24 | 179 ± 318 | 252 ± 40 |