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# The role of soil pH on soil carbonic anhydrase activity

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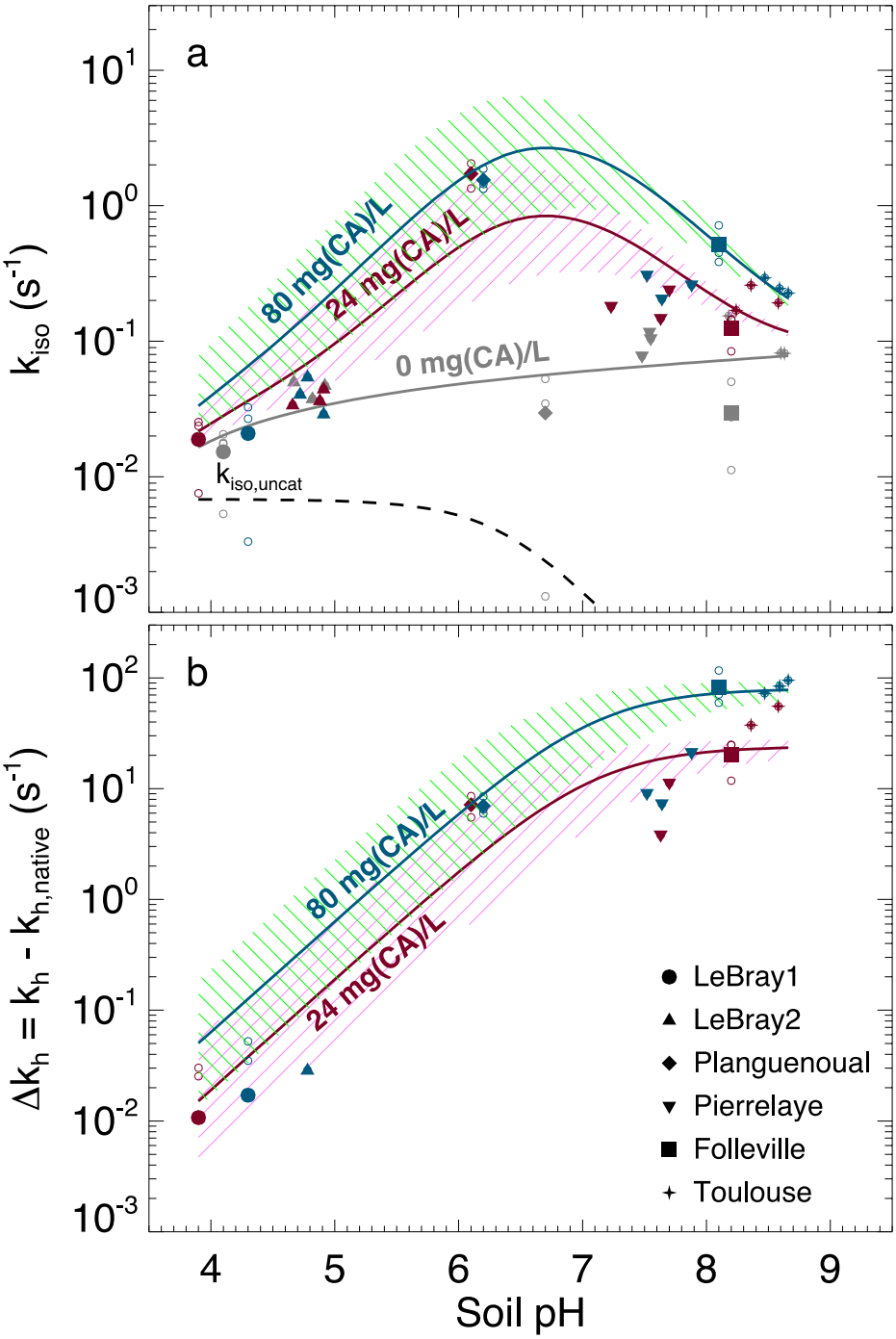
Figure S1: same as Fig. 6 but with kiso values retrieved from the non-steady state model as described in the main text.



| Soil name | CA treatment | $<\delta_{sw}>$ | $<\delta_{sw\text{-}eq}>$ | *n* | *t*-test |
|---|---|---|---|---|---|
| Le Bray 1 | 0 | -11.97 | -7.31 | 1 | - |
| Le Bray 1 | 24 | -11.24 | -6.88 | 1 | - |
| Le Bray 1 | 80 | -9.57 | -7.59 | 1 | - |
| Le Bray 2 | 0 | -13.56 [a] | -8.79 [b] | 3 | $P < 0.05$ |
| Le Bray 2 | 24 | -13.31 | -8.95 | 3 | $P < 0.05$ |
| Le Bray 2 | 80 | -13.35 | -9.41 | 3 | $P < 0.05$ |
| Planguenoual | 0 | -7.95 | -7.31 | 1 | - |
| Planguenoual | 24 | -5.50 | -7.83 | 1 | - |
| Planguenoual | 80 | -5.97 | -6.40 | 1 | - |
| Pierrelaye | 0 | -11.88 | -9.48 | 3 | $P < 0.05$ |
| Pierrelaye | 24 | -11.40 | -9.73 | 3 | $P < 0.05$ |
| Pierrelaye | 80 | -10.97 | -9.61 | 3 | $P < 0.05$ |
| Folleville | 0 | -8.31 | -7.87 | 1 | - |
| Folleville | 24 | -6.58 | -7.59 | 1 | - |
| Folleville | 80 | -6.95 | -8.11 | 1 | - |
| Toulouse | 0 | -11.03 | -9.68 | 3 | $P < 0.05$ |
| Toulouse | 24 | -10.90 | -9.57 | 3 | $P < 0.05$ |
| Toulouse | 80 | -10.71 | -9.68 | 3 | $P < 0.05$ |

Table S2: Mean $\delta_{sw}$ measured over the entire soil column and weighted by soil moisture content and corresponding mean $\delta_{sw\text{-}eq}$ for each soil and CA treatment. For LeBray1, Planguenoual and Folleville, one single microcosm was measured over three consecutive gas-exchange sequence, which did not allow us to test for significance differences between the two means. For the other soils, three different microcosms were measured for each treatment, and care was taken to maintain a relatively homogeneous soil water isotopic composition (Fig. 5) so that statistical tests for significant differences could be performed using the open-source software R v.3.3.1 (R Core Team, 2015).