

## ***Interactive comment on “Silicon isotope fractionation and uptake dynamics of three crop plants: laboratory studies with transient silicon concentrations” by Daniel A. Frick et al.***

**Daniel A. Frick et al.**

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Dear Anonymous Reviewer # 2

Regarding your comment:

**I think that what is actually demonstrated is that silicon as silicic acid follows water and that this is only a passive process. See attached.**

We do not agree with your observation. Our results, comparing the theoretical and the actual amount of Si that plants taken up during growth (Fig. 1c), show a clear evidence that active, metabolism-driven processes or mechanisms must have been involved for

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wheat. There is no other explanation for the 2-fold excess of the theoretically taken up amount of Si which we observe for wheat. Of course, this does not mean that the sub-processes you have indicated did not also occur passively.

We will discuss shortly your and our arguments in the revised manuscript.

Best regards on behalf of all co-authors,

Daniel A. Frick

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Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2020-66>, 2020.

**BGD**

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