

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.

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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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