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BGD

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Interactive Comment

Interactive comment on "The fate of N₂O consumed in soils" *by* B. Vieten et al.

Anonymous Referee #2

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The reduction of N2O by nitrogenase is a known phenomenon, but the affinity of nitrogenase for N2O is really poor (km= 24kPa = 0.24 atm!). This implies that the concentration of N2O has to be orders of magnitude higher than that experienced by root nodules or free living organsims, for this process to be of quantitative importance. The auhtors have tested the significance of this process in soil columns where nitrogenase activity is unknown, but probably extremely low. The absence of evidence is seldom the evidence for absence, and in this case sertainly not. It may prove the absence of other pathways of reduction of N2O to NH3, whatever that should be.

Interactive comment on Biogeosciences Discuss., 4, 3331, 2007.



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Interactive Discussion