

Interactive
Comment

Interactive comment on “CO₂ enrichment increases nutrient leaching from model forest ecosystems in subtropical China” by J. X. Liu et al.

Anonymous Referee #2

Received and published: 5 September 2008

1. General comments

This MS examines leaching from model forests receiving factorial combinations of CO₂ fumigation and N addition. Although there have been many studies examining how N deposition affects leaching, quite few studies have examined how leaching is affected by elevated CO₂. Thus, the ms has reported some quite interesting and novel research findings about the effect of high atmospheric CO₂ alone and together with N addition on the dynamics of mineral nutrients, particularly on the nutrient leaching losses in the model forest of subtropical China.

The ms is generally well written and should be published as soon as possible. It would

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also be very important that this interesting research could be continued to assess the longer term impacts on the soil - plant processes.

I would recommend the publication of the ms in the journal after some minor revisions could be made in response to the following specific comments.

2. Specific comments

Abstracts: “N-NO₃⁻” should be written as “NO₃⁻-N”, and similarly “N-NH₄⁺” as “NH₄⁺-N”; these changes should be made throughout the abstract, methods, results and discussion sections (including in the tables and figures); Page 1 Line 14: it should be changed to “. . . greater amounts of leaching water.”; P1 L18 – to “. . . subtropical China might suffer from nutrient limitation and reduction in plant biomass . . .”;

Introduction: OK

Materials and methods: P2 L24 – to “. . . solar radiation of 23.1 MJ m⁻² in the . . .”; P3 L 16 – see comments for the abstract;

Results: P4 L42-51 – see comments for the abstract on the expression of “NO₃⁻-N” and “NH₄⁺-N”;

Discussion: P6 L10-26 - see comments for the abstract on the expression of “NO₃⁻-N” and “NH₄⁺-N”;

Tables 2 and 3 - see comments for the abstract on the expression of “NO₃⁻-N” and “NH₄⁺-N”;

Figures 3 and 4 - see comments for the abstract on the expression of “NO₃⁻-N” and “NH₄⁺-N”;

All the pages should be numbered for the ease of reading and commenting.

Interactive comment on Biogeosciences Discuss., 5, 2679, 2008.

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