

Interactive comment on “A novel analytical approach for the simultaneous measurement of nitrate and DOC in soil water” by Elad Yeshno et al.

Anonymous Referee #1

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General Comments

This is a very well written and well done study that should be of broad international interest. The methods were clear and the Results and Discussion nicely done on the whole. I believe that this paper is suitable for publication after minor revision.

Specific Comments

1) Concentrations of nitrate and DOC are expressed as ppm, which is not a SI unit. My preference would be to change concentrations to units of mg/l throughout the paper (including tables and figures) and supplementary material. Such units are also better for flux calculation in case one were so inclined.

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2) In the Methods, I wonder if iron caused any interference in the UV absorption measurements. If not, please state as such. If so, please explain how this was handled.

3) In the Methods, I also think that a photograph or diagram of the experimental set-up would be useful for readers. Please add.

4) I understand that this paper is about soilwater. However, it struck me as I was reading this paper, if it was worth mentioning in the Introduction and/or Discussion how such techniques have been used to measure DOC and nitrate concentrations in streamwater. Otherwise, one might not know that such techniques have been used elsewhere in hydrology. I think it is important to provide the reader with some context on other measurements of DOC and nitrate for sake of completeness and context. I am only asking for a nod to such work. A paper by Vaughan et al (2017) shows streamflow DOC and nitrate concentrations in streamwater for forested, agricultural, and urban watershed (see: <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2017WR020491>). Such a paper might be worth mentioning with regard to the above but there are many other options.

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