

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 #2

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General comments This paper presents an advance in the analysis of soil water. Maybe not a giant leap but surely an interesting technique. The text is understandable and sufficient and the reader is able to get a fairly complete idea of the work done. However, some important points should be discussed. How easy is it for the farmer to prepare samples for analysis in a reproducible way? No explanation is given on how the estimation of Figure 5 has been obtained.

Specific comments The authors state that “the polynomial calibration equation for nitrate must be site-specific”. This can be a limitation to a system that should be used by “farmers who are focused on food production in large scale agricultural setups”.

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Five soil samples can be few to represent all possible real situations. What is the accuracy of the value of Table 1? The authors state that “An important advantage of DOC fluorescence spectroscopy is that it is not affected by the presence of nitrate in the solution.” Sure? Why? It would have been better a version of Figure 3 where the nitrate prediction is based on the DOC measurement made with the fluorescence technique. Please explain why only the points of Figure 3b are vertically aligned.

Technical corrections The correct spelling is “humus” and not “hummus”. Line 168, “Figure 3” is again “Figure 2”. Line 172, “x” should be the multiplication sign.

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