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Interactive Comment

Interactive comment on "Protein analysis in dissolved organic matter: what free proteins from soil leachate and surface water can tell us – a perspective" by W. Schulze

Anonymous Referee #2

Received and published: 11 February 2005

General comments This paper deals with interesting application of proteomics in dissolved organic matter in soils. This certainly will add new knowledge in the existing understanding bases of the functional structure and diversity of DOM.

Specific comments: 1) The author used extract method, instead of concentration or filtration, so the extraction, soluble DOM, may be different from DOM in waters in composition, structure and also by definition, and this method may change the structure. The author should clearly mention this fact. I suggest that the author adds and compares it with some data of surface DOM if possible. 2) In the literature review in Line 6-10, the author may have to mention that quite lot work had shown the existence of proteins of DOM in terrestrial environments particularly using molecular fluoroscopy and chemical analysis, for example, Biogeochemsitry, 2003, 65, 245-257; Chemical

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Geology, 2002,184, 139-149; ES&T, 2003, 37, 3687-3693. 3) It would be interesting that these data can be compared with huge current existing data of DOM using general chemical analyses (molecular weight, chemical components), as the goal of this project is to not only show the potential of this new method, but also to explore the nature of DOM; and the comparison may provide some new insights.

Interactive comment on Biogeosciences Discussions, 1, 825, 2004.

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