Dear Anonymous Reviewer #2:

Thanks so much for you constructive comments. Here, we have fixed these comments point by point. And reference to page and line numbers is for the revised manuscript with trace changes.

Comments: Introduction is proper, but it should be ended by formulation of one aim and few objectives.

Response: Very good suggestion. We have formulated the introduction by ending with aims and four hypotheses (Page 7, Line 10-20).

Comments: In methods chapter I have to advise to add the soil schematic description, because there are not a lot of information published about the soils of Inner Mongolia. Please provide name of soil horizons, their thickness and color according to Munsell color chart.

Response: Thanks for the detailed comments. We have added the soil schematic description as Figure 1 (Page 8, Line 10). And information about the name of soil horizons, their thickness and color was added (Page 8, Line 10).

Comments: Data on DOC and DIN are interesting and statistically approved. But it is necessary also to provide data on total organic carbon and nitrogen both in the bulk and in the fine earth of aggregate fractions.

Response: Thanks for the critical comment. We have added total organic carbon (SOC) and nitrogen (TN) of control plots in Table 1. With regret, the data of SOC and TN concentrations within bulk soil and soil aggregates in treatment plots has been published in Wang et al. (2014, Plant Soil paper and 2015, SSSAJ paper). Thus, we did not show these data in this manuscript.

Comments: The most serious comment about the correlation of pH values and elemental ratio. pH is logarithmic value and there is no possibility to correlate it with measured soil values in mg/kg. It is necessary to compare hydrogen concentration in soil solution with DOC:DIN ratio. This should be correct, but not pH with DOC and DIN, this is an artifact.

Response: Thanks for the critical comments. However, we do not agree with view

that relationship between pH and the ratio of DOC:DIN (or other ratios) is an artifact. To confirm this, we converted soil pH values into H^+ concentration in soil solution; and did the regression analyses. When doing regression analyses in SPSS, we chose 'Regression→ Curve Estimation→ Logarithmic model' to determine the relationships. It turned out to be that two ways of analyses (pH *vs.* ratios, and H^+ *vs.* ratios) showed exactly the same results (for both *R* square and *P* values). Also, utilizing pH values to do correlation or regression analyses with other soil parameters is actually accepted and commonly used by the researchers (e.g. Pennanen et al. 1998, doi: 0099-2240/98/$04.0010, AEM; Rousk et al. 2010, doi:10.1016/j.soilbio.2009.11.026 , SBB). Thus, we might want keep the original analyses of pH *vs.* ratios in the text. We are hoping that our explanation is reasonable for you. Here is the regression of H^+ *vs.* ratios: