

Interactive comment on “Relationships between leaf $\delta^{15}\text{N}$ and leaf metallic nutrients” by Chongjuan Chen et al.

Anonymous Referee #2

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Chen and coauthors investigated the relationships between leaf $\delta^{15}\text{N}$ and metallic nutrients across a large number of sites from northeast to southwest China. They found leaf $\delta^{15}\text{N}$ was positively correlated with leaf K, Ca, Mg and Zn but negatively correlated with leaf Fe, and these correlations were not affected by vegetation and soil type. However, the relationship between $\delta^{15}\text{N}$ and Mn was dependent on vegetation and soil type. This is an interesting study which examined the relationships between leaf $\delta^{15}\text{N}$ and leaf metallic nutrients for the first time. I have no major concerns with the content of the manuscript. However, the paper needs a strong hand in English editing. The language is often not precise/exact, sometimes appears to be ordinary and has grammatical errors. I strongly suggest to critically check the grammars, read and polish the manuscript using exact language. I listed some examples below but more need to

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be revised. I would recommend for publishing if this and the following comments could be addressed.

Specific comments: Line 15: “Calcium” should be “calcium”. Line 25: metetallic → metallic Line 29: Should be attention. Attention is an uncountable noun. Line 29-32: Need to be rephased. Delete “deemed as”. This sentence is too long. Split to two sentences. Line 34: Change to “Revealing the potential factors that influence leaf $\delta^{15}\text{N}$ and investigating the relationships between them could help improve our current understanding of N cycling”. Line 37: Should be “Much attention has”. Line 43: Change “have exposed” to “demonstrated”. Line 46-47: To our knowledge, no report exists for the relationships... Line 55: “plays a vital” Line 52-66: This paragraph is poorly written and needs to be revised. Line 80-88: Where is the description for soil sampling? Line 164: should be “positively correlated to leaf K...” Line 161-175: Check the use of “while” and “whereas”. Both of them are conjunction and should connect two sentences. Line 224: “Whereas” → “Nevertheless” Line 255: “but also served as ...” Line 261: “leaf and roots, and then...” Line 277-278: Are there any correlations among metallic nutrients? The different relationships observed for Zn, Mn, Fe are very interesting and deserve further discussion. Line 290-292: ...leaf metallic nutrients almost did not change..., which suggested ...

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