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Interactive comment on "Sources and fluxes of organic nitrogen in precipitation over the southern East/Japan Sea: potential impacts on marine productivity" by G.Yan and G.Kim

Anonymous Referee #2

General comments:

This manuscript deals with the atmospheric deposition of nitrogen, particularly the organic fraction, from northwestern Pacific. The data provide new information in key regions where organic N has not previously been measured and help to better evaluate the role of organic N in the global biogeochemical cycle of atmospheric N. The authors acknowledge in their manuscript that "The results presented might be subject to large uncertainties, such as those associated with spatial variations of depositional fluxes across the EJS, the proportions of organic nitrogen in dry deposition, and the bioavailability of organic nitrogen in the atmosphere", however I believe that this study is a step forward to better understand the role of atmospheric organic N in marine environments. Here are some minor comments that may help the authors to improve their manuscript.

Specific comments:

Page 5, line 12: Please indicate the number of samples.

Page 7, line 4: I wonder how the author estimate the detection limit of DON, since there is no analytical method to measure it directly. Please comment.

Page 7, line 5: Please refer what kind of analytes you certified by using the reference materials.

Page 9: The discussion in section 3.1.2 is based on the classification of air mass origin. I suggest to change the title as follows: Potential source regions based on air mass origin.

Page 12, line 1-11: Maybe it is worth to comment the correlation founded between DON and NH_4^+ .

Page 37, Fig.4: It would be better, if in this figure you included also the number of samples corresponded to each air mass sector.

Technical corrections:

Page 11, line 17:.... indicates *that* crustal contribution....

Page 35, Table 4: Please replace "pus" with "plus"