Atmospheric Water Soluble Organic Nitrogen (WSON) over marine environments: a global perspective
by Violaki et al.

This manuscript deals with the atmospheric deposition of water soluble organic nitrogen from a global viewpoint, using data from various oceanic provinces (i .e. various land-based influences and various trophic states), and considering two different granulometric populations (fine and coarse particles).
The evaluation of the water soluble pool of organic N is crucial regarding the chemical limitation of primary production, insofar as this pool is a potential indirect source of N for microorganisms. This manuscript provides major tools to better understand the role of N in chemical limitation of primary production. Indirectly, this study also helps to better assess the role of mineral dust, biomass burning, anthropogenic inputs, or biological activity.
The data set is significant useful data, and the technical approach seems rigorous and appropriate.

I recommend this manuscript for publication in *Biogeosciences*, under the reserve of minor changes. Here are my comments:
- Chemical analysis: Detection limits and blanks are not expressed in the same units.
- Partitioning between nss- and ss-ions:
    a) if I am not wrong, those acronyms are introduced in the text ;
    b) the authors do not explain how they discriminate nss- and ss-ions
- I am a bit surprised by the use of BC concentrations to characterise continental influences. To my knowledge, this is not usual, and might not be appropriate, because BC emissions from ships are very significant (e.g., ships tracks can be easily detected over marine areas by BC concentration plumes).

Christophe MIGON

Manuscript Evaluation Criteria

Scientific significance:	Good
Scientific quality:	Excellent
Presentation quality:	Good (apart, maybe, the use of correct English, but I am not the best person to evaluate it - English is not my native tongue)

Qucik Report

1. Does the paper address relevant scientific questions within the scope of BG? **YES**
2. Does the paper present novel concepts, ideas, tools, or data? **YES**
3. Are substantial conclusions reached? **YES**
4. Are the scientific methods and assumptions valid and clearly outlined? **YES**
5. Are the results sufficient to support the interpretations and conclusions? **YES**
6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)? **YES**
7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution? **YES**
8. Does the title clearly reflect the contents of the paper? **YES**
9. Does the abstract provide a concise and complete summary? **YES**
10. Is the overall presentation well structured and clear? **YES**

11. Is the language fluent and precise? **YES, although I feel English should be improved**
12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used? **YES**
13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated? **NO**
14. Are the number and quality of references appropriate? **YES**
15. Is the amount and quality of supplementary material appropriate?