2nd Referee report on "Characterization of aerosol particles at Cape Verde close to sea and cloud level heights - Part 2: ice nucleating particles in air, cloud and seawater" by Xianda Gong et al.

The authors have addressed most of the comments and improved the manuscript. However, I would like to suggest some further edits to improve the manuscript before it can continue the review process.

General comments:

The **abstract** is somewhat fragmented and could be constructed better to describe the work that has been conducted and highlight the outcomes. The section from line 8-17 on page 1 is mixing information of range, absolute INP concentration and potential nature of INPs. Also, in the last section page 2, line 1ff the first sentence seems disconnected from the rest.
Page 2, line 17, you mention a "feasible way to link N_{INP} in air, ocean and cloud water". Do you mean here by determining and comparing NaCl masses in these compartments? If this is the case, please clarify this by adding a sentence.

Active surface site density. Could ns be estimated more accurate if you use the information that 80% of detected INPs are super-micron particles? If there are compelling reasons not to consider this information, it could be explained here.

CVAO PM10. Page 12, Line 13ff describes correlation of N_{INP} at different temperatures. It seems trivial that a cumulative INP concentration is almost the same in a narrow temperature range for one sample. The authors need to explain and formulate more clearly how they reach the conclusion in the last sentence of this paragraph.

3.3.2. Connecting INPs in the cloud water with these in the air. The authors give information on the percentage of cloud time, sampling time and collected water volume. The flow rate through a CASCC2 can be found in Demoz et al., 1996 to be 5.8m^3/min. With this information it is straight forward to calculate the volume of cloud water per volume of air from the information given in Tab. S5:

$$F_{cloud\_air} = \frac{V_{water}}{sampling\ duration \cdot fraction\ in\ cloud \cdot flow\ rate}$$

Please confirm the results in this section by using this more direct estimation of F_{cloud_air}.

Specific Comments:

Page 1, Line 3ff.: I suggest reformulating this sentence: "In this work, we examined N_{INP} at Cape Verde in different environmental compartments: namely, the ocean sea surface microlayer, underlying water, cloud water and the atmosphere close to both sea and cloud level."

Page 5, Line 18: delete "was"

Page 8, Line 17: "First,..." is not followed by Second in the following. Delete.

Page 8, Line 27: Replace "This provides an opportunity" by "PNSDs were used"

Page 10, Line 8: delete "in" before "herein".

Page 10, Fig.2: I recommend to directly use Fig.S3 that includes the uncertainty estimation, instead of Fig.2.

Page 12, Line 22: replace “observation” by “inspection”.

Page 12, Line 26: The data provides information on the abundance of INP at different temperatures and not INP efficiencies for individual particles. Replace “efficient” with “abundant”.

Page 12, Line 31: replace “PM10” with “PM1”.

Page 16, Fig.6 caption: Consider reformulating to: “N_{INP} in cloud water as a function of temperature…Previous field measurements of N_{INP} in cloud water by Joly et al. (2014) are shown as red box for comparison.”