

We thank the editor for his comments on our manuscript. The comments are reproduced in full below in bold text and our response follows.

**Focused on the interpretation of mass spectrum information, this manuscript introduced the generalized Kendrick analysis as an improved visualization method of mass spectrum with minimal information of the composition. This manuscript did a fine job by including a tunable factor to alter the mass defect spacing to encourage its application in visualization and peak identification processes within the field of atmospheric chemistry. Overall, authors made well-considered changes by addressing all the comments from each referee and provided solid and convincing arguments.**

**There are a few minor comments:**

**1. Line 118, typo I believe, change “we” to “were”.**

We did not find the typo, however, to improve readability, we have changed this sentence as follows (changes in red):

We then discuss in general terms the principles of the mechanisms by which the mass defect space is expanded. We demonstrate its application for visualization of atmospheric trace gas composition, describe how choices of  $R$  and  $X$ , ~~which we term scaling factor when used in GKA,~~ will affect the visualization, show how the technique can aid in molecular formula assignment to unknown ions, and describe an open-source graphical user interface (GUI) for performing the analysis. **In GKA, we refer to  $X$  as the scaling factor.**

**2. Section 3.3, it will be better to clarify the source of data in Figure 3.**

We have modified the caption of Figure 3 to read:

Figure 3 ~~(a)~~ GKA plot of data obtained from Vocus ambient measurements **(same data as Figure 1)** with base of  $^{16}\text{O}$ , and (a)  $X = 20$  (b)  $X = 17$ . The points are colored by the number of hydrogens in the assigned formula and sized by the log of the measured intensity. Fig. S4 shows this same transformation but zoomed into a small section to show how the chemical formulas of the ions in a horizontal line are related.

**3. The figure captions in section 3.1, 4.1, and 4.2 were incorrect, please fix them.**

We have fixed the superscripts and italicized  $X$  in all the figure captions.