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Interactive comment on "Evaluation of NO^+ reagent ion chemistry for on-line measurements of atmospheric volatile organic compounds" *by* Abigail R. Koss et al.

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Our group has reported product ions and their relative intensities of C3-C13 n-alkanes and C4-C10 iso-alkanes measured by NO+ CIMS (see Table A1 of the Supplementary Data in Yamada et al. (2015)). The present results are generally similar to ours. But it seems that the ratios of fragment ions to [M-H]+ ions are larger in the present study than ours. I think that the strength of the electric field of the drift tube (i.e., E/N ratio) cannot be the reason of this difference because the ratios are similar in both the studies (60 Td in the present study and 67 Td in our study). We also showed that O2+ ionization of alkanes produces the same fragment ions as NO+ ionization (see Table A1 of the Supplementary Data in Yamada et al. (2015)). Therefore, we subtracted the con-

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tribution of O2+ ionization from ion signals in order to report the detection sensitivities of alkanes by NO+ CIMS. Did the authors consider the contribution of O2+ ionization when they measured alkanes by NO+ CIMS?

Yamada, H., Inomata, S., and Tanimoto H.: Evaporative emissions in three-day diurnal breathing loss tests on passenger cars for the Japanese market, Atmos. Environ., 107, 166-173, 2015.

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