

## ***Interactive comment on “Evidence of ketene emissions from petrochemical industries and implications for ozone production potential” by Chinmoy Sarkar et al.***

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I am posting a quick comment for saving some time to the reviewers.

I think the assignment of the  $m/z$  43.018 ( $\text{CH}_3\text{CO}^+$ ) signal to ketene is incorrect. We flew our PTR-TOF-MS instrument on the NASA DC-8 during KORUS-AQ, and we also observed a high  $m/z$  43.018 signal over the Daesan petrochemical complex. The signal was highly correlated with the  $m/z$  87.044 ( $\text{C}_4\text{H}_7\text{O}_2^+$ ) signal and a laboratory study confirmed that the signal ratio was the same as for vinyl acetate. Vinyl acetate produces a strong acetylium ion fragment upon protonation in the PTR-MS analyzers, especially under the PTR-MS operating conditions (high  $E/N$ ) the authors were using.

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Vinyl acetate is expected to be emitted from the ethylene vinyl acetate (EVA) plants at Daesan.

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