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Supplementary Material

Gas-phase kinetic and mechanism study of the reactions of O₃, OH, Cl and NO₃ with unsaturated acetates

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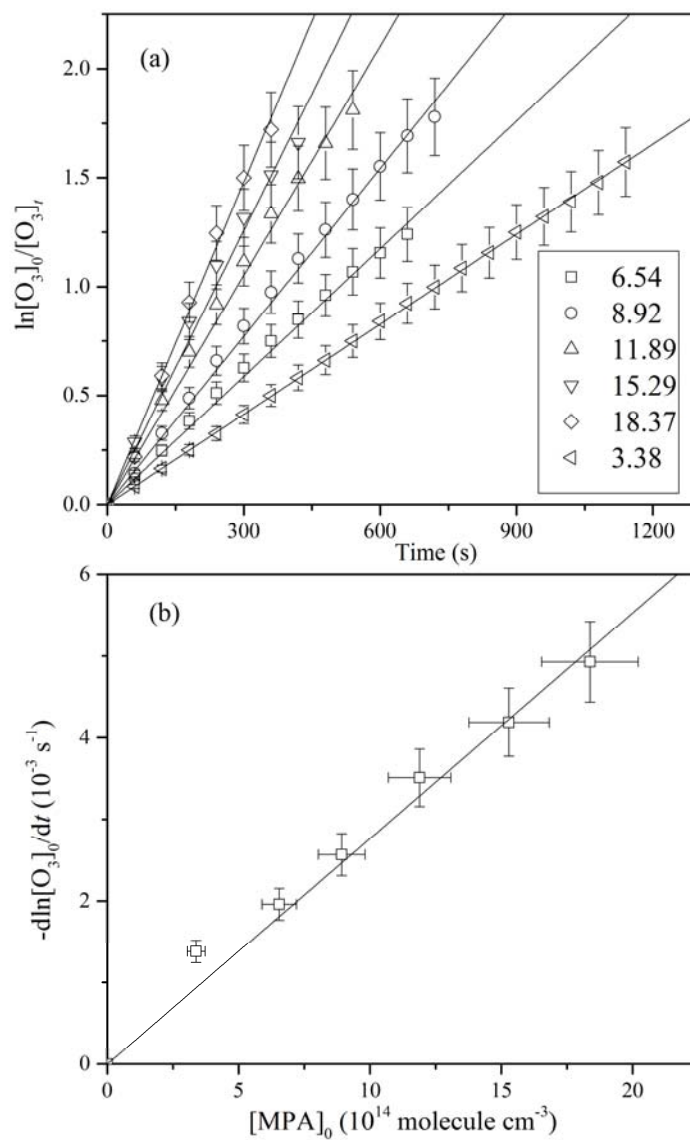


Figure S1. (a) Pseudo-first-order plots for O_3 reactions with different initial concentrations of MPA (units in $10^{14} \text{ molecule cm}^{-3}$), (b) plot of $-\frac{d\ln[O_3]}{dt}$ versus the initial MPA concentration.

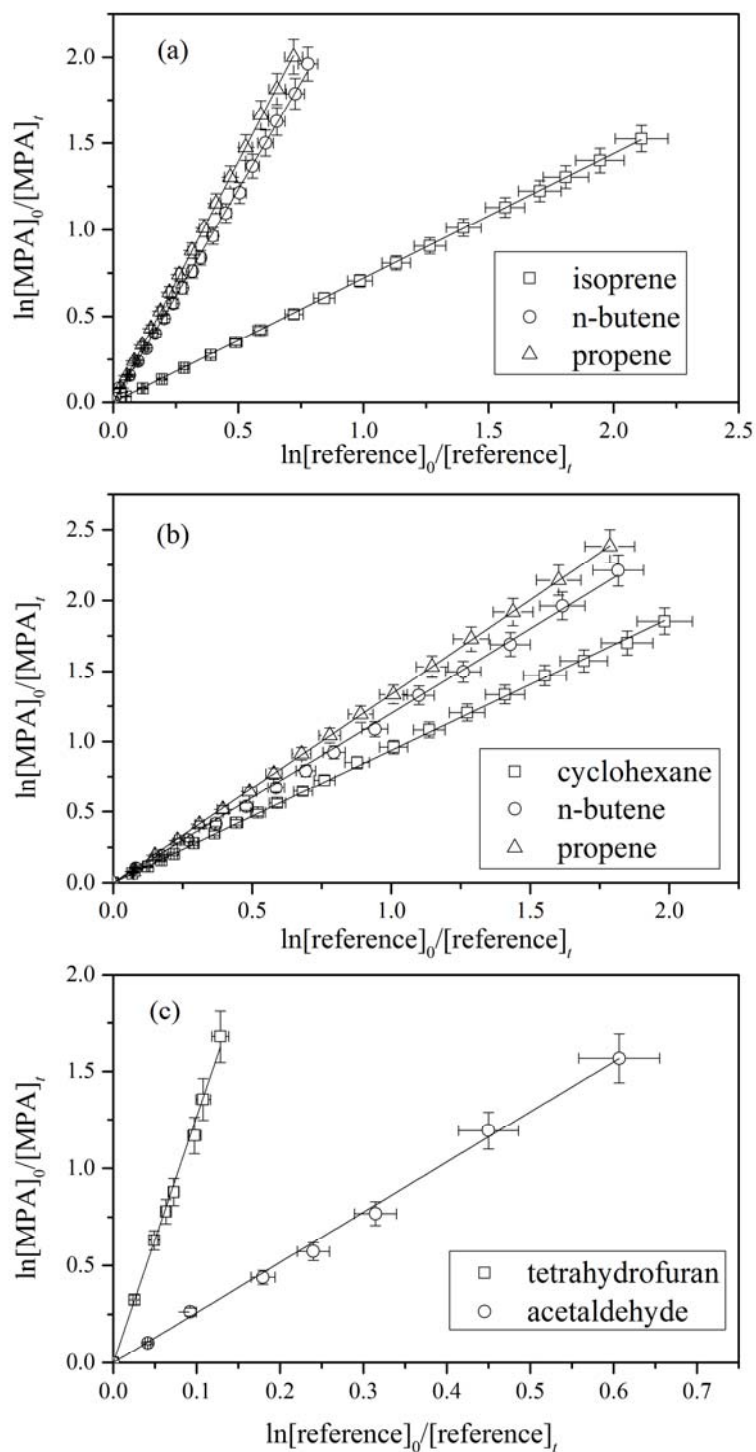
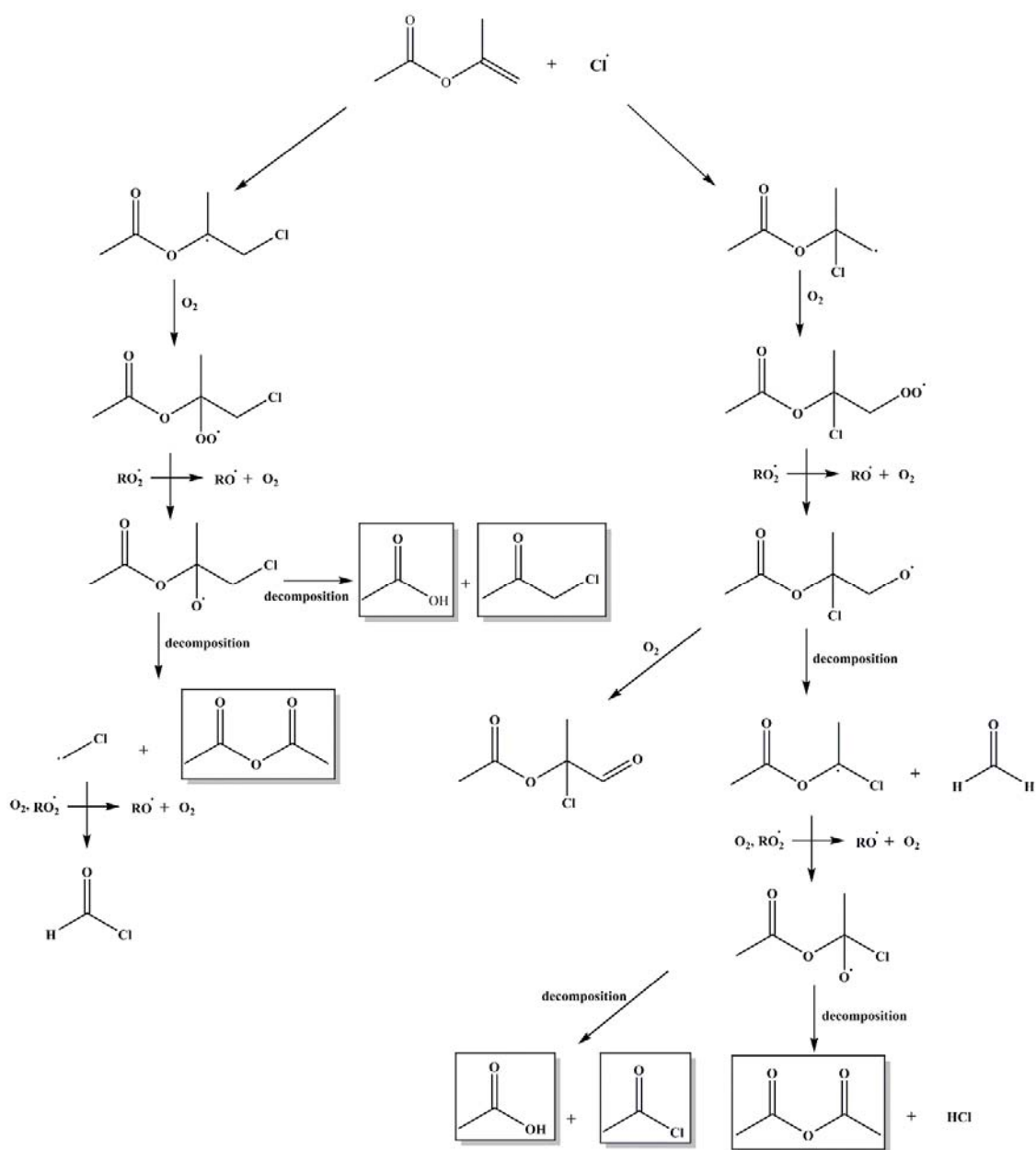
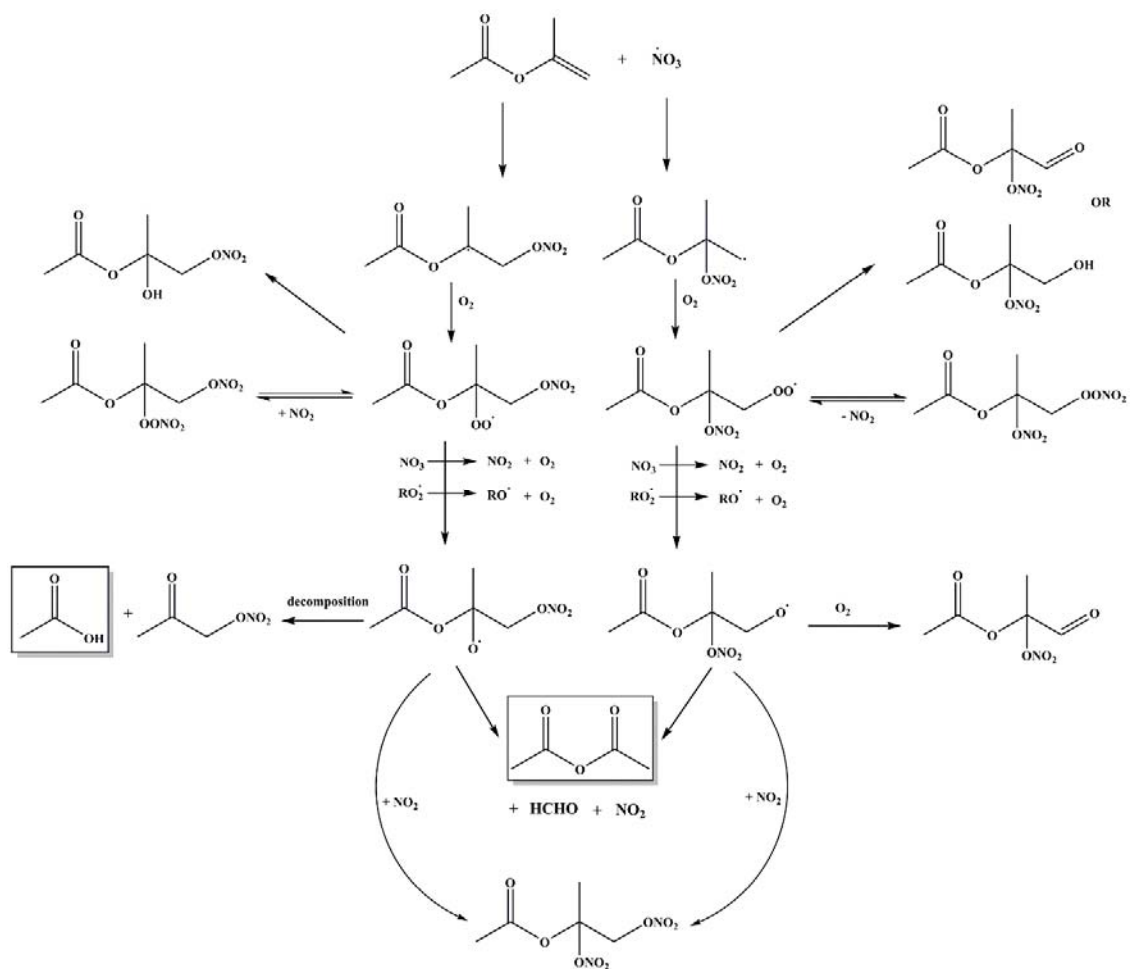


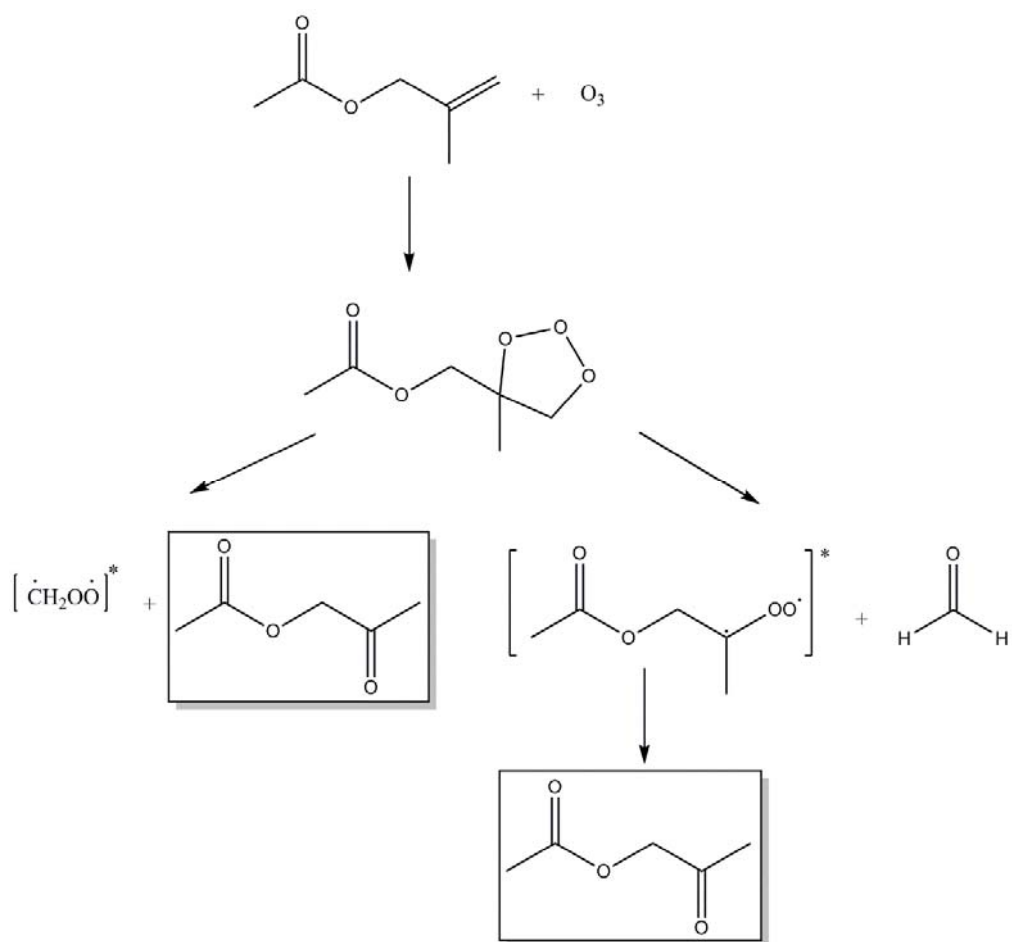
Figure S2. Relative loss of MPA versus reference compounds in the presence of (a) OH, (b) Cl and (c) NO₃.



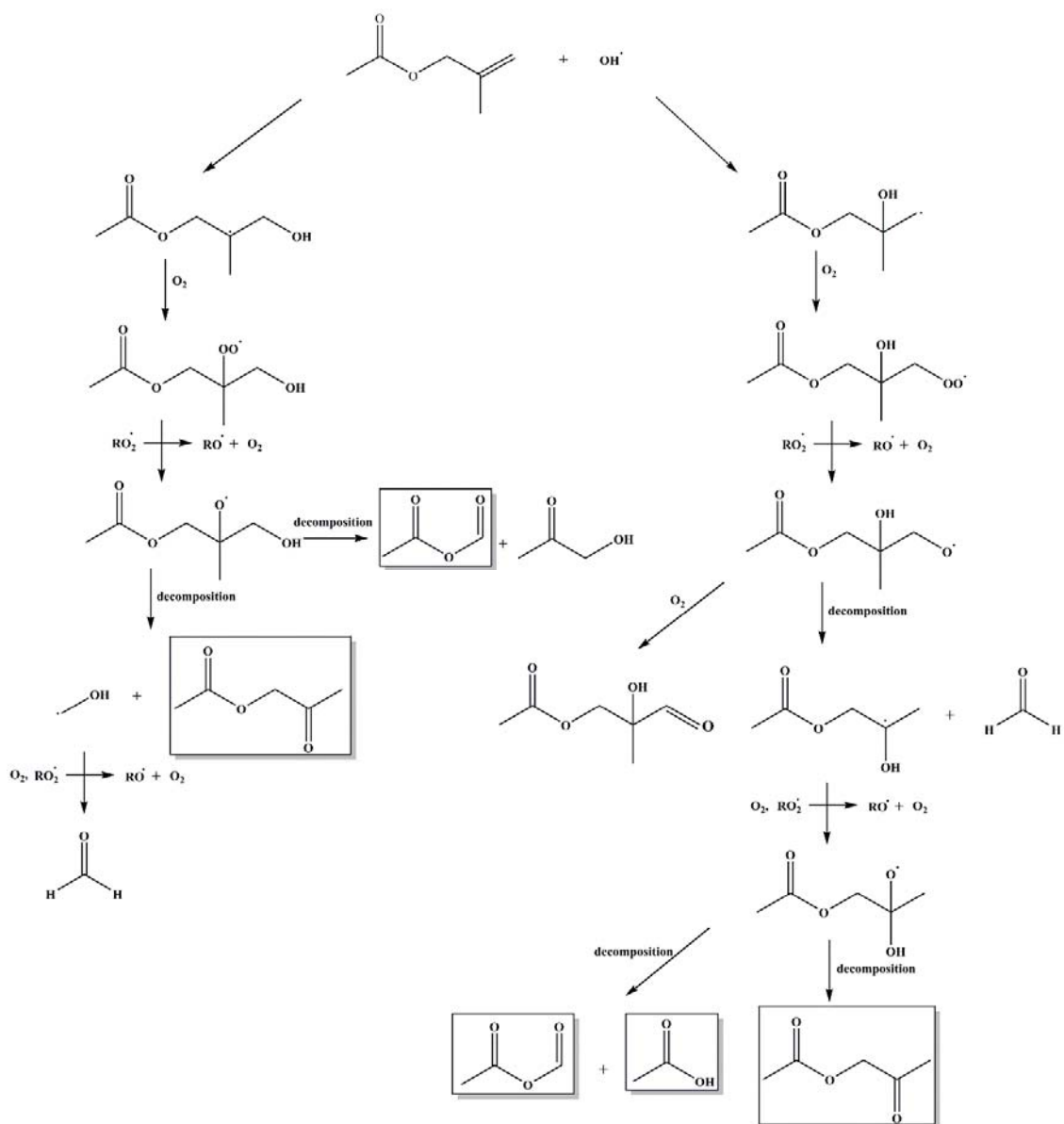
Scheme S1. Proposed reaction pathways for the reaction of IPA with Cl.



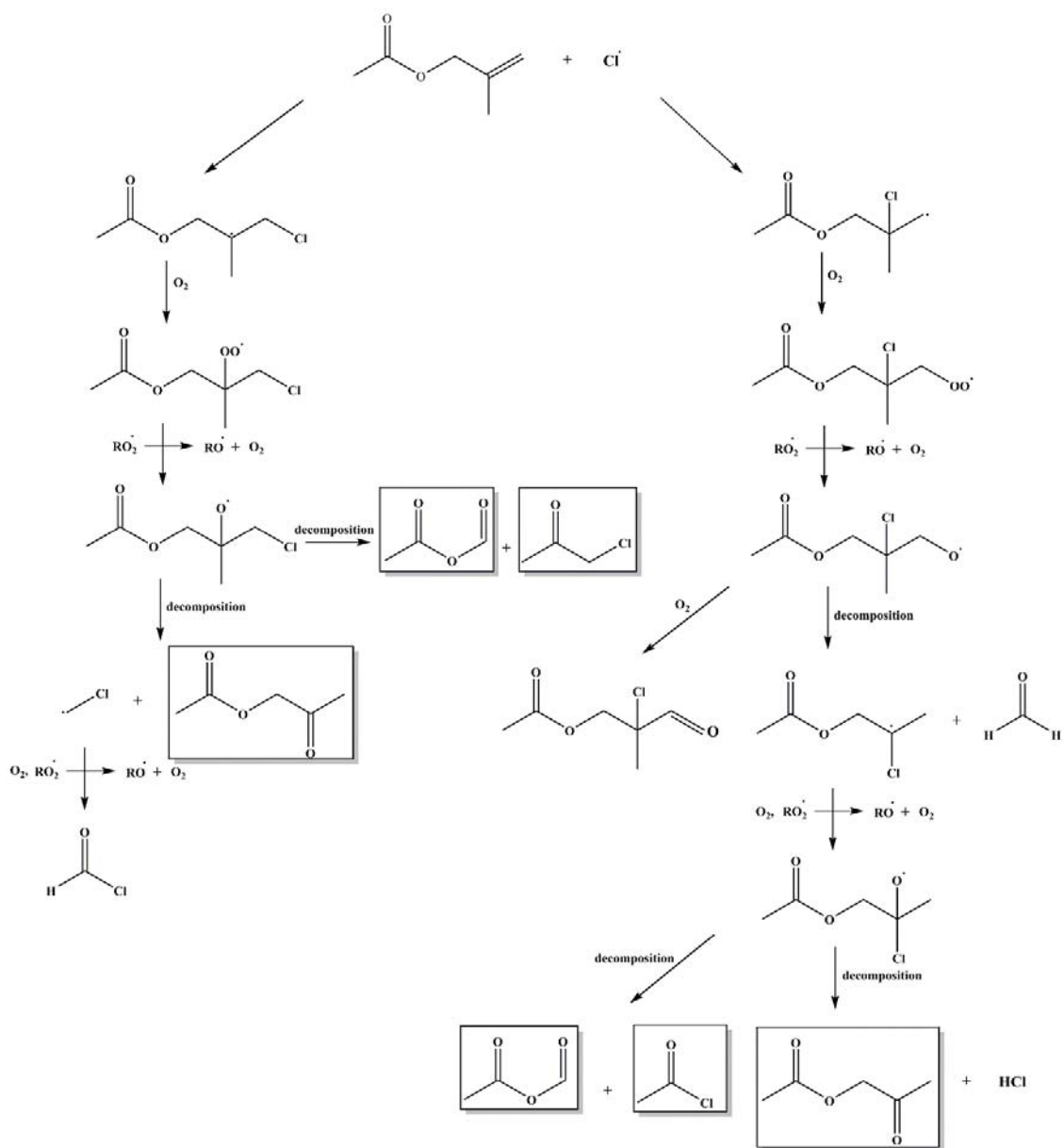
Scheme S2. Proposed reaction pathways for the reaction of IPA with NO_3 .



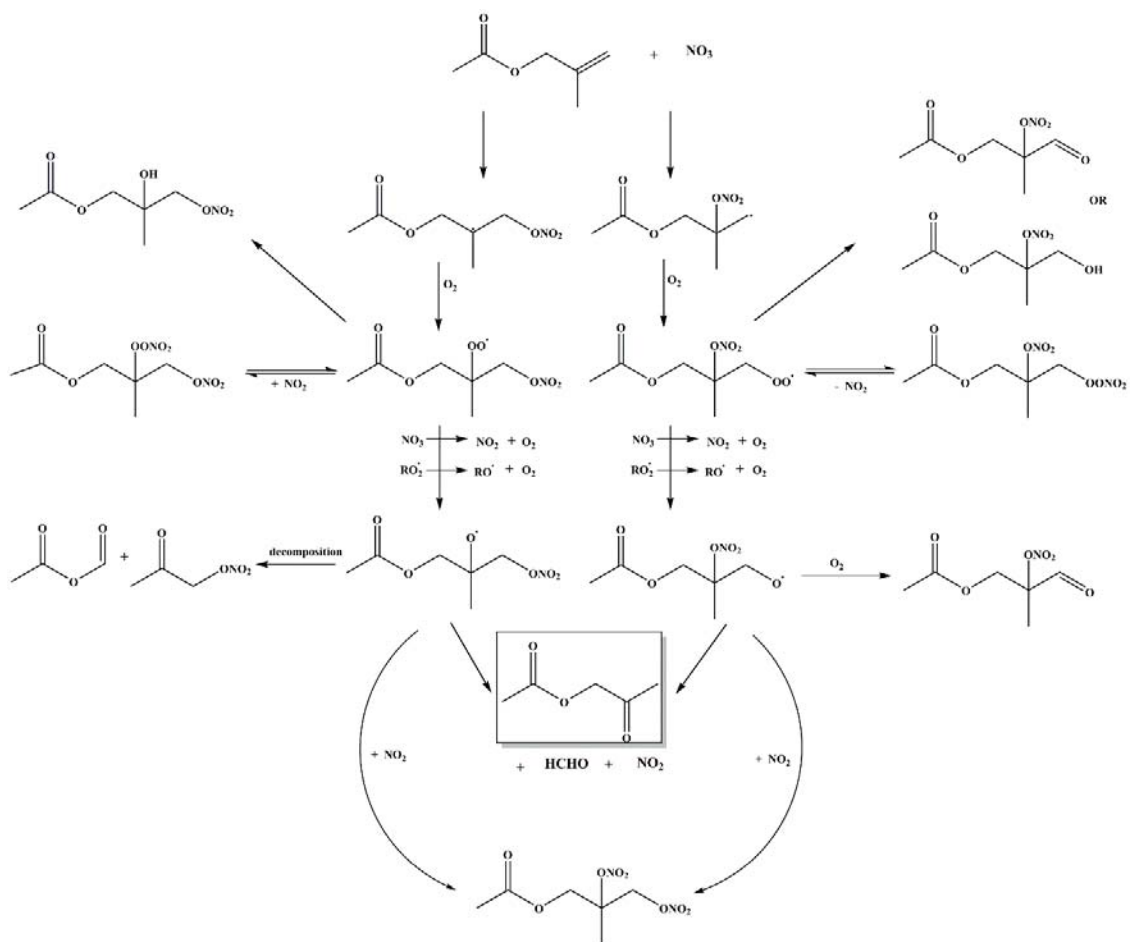
Scheme S3. Proposed reaction pathways for the reaction of MPA with O₃.



Scheme S4. Proposed reaction pathways for the reaction of MPA with OH.



Scheme S5. Proposed reaction pathways for the reaction of MPA with Cl .



Scheme S6. Proposed reaction pathways for the reaction of MPA with NO_3 .

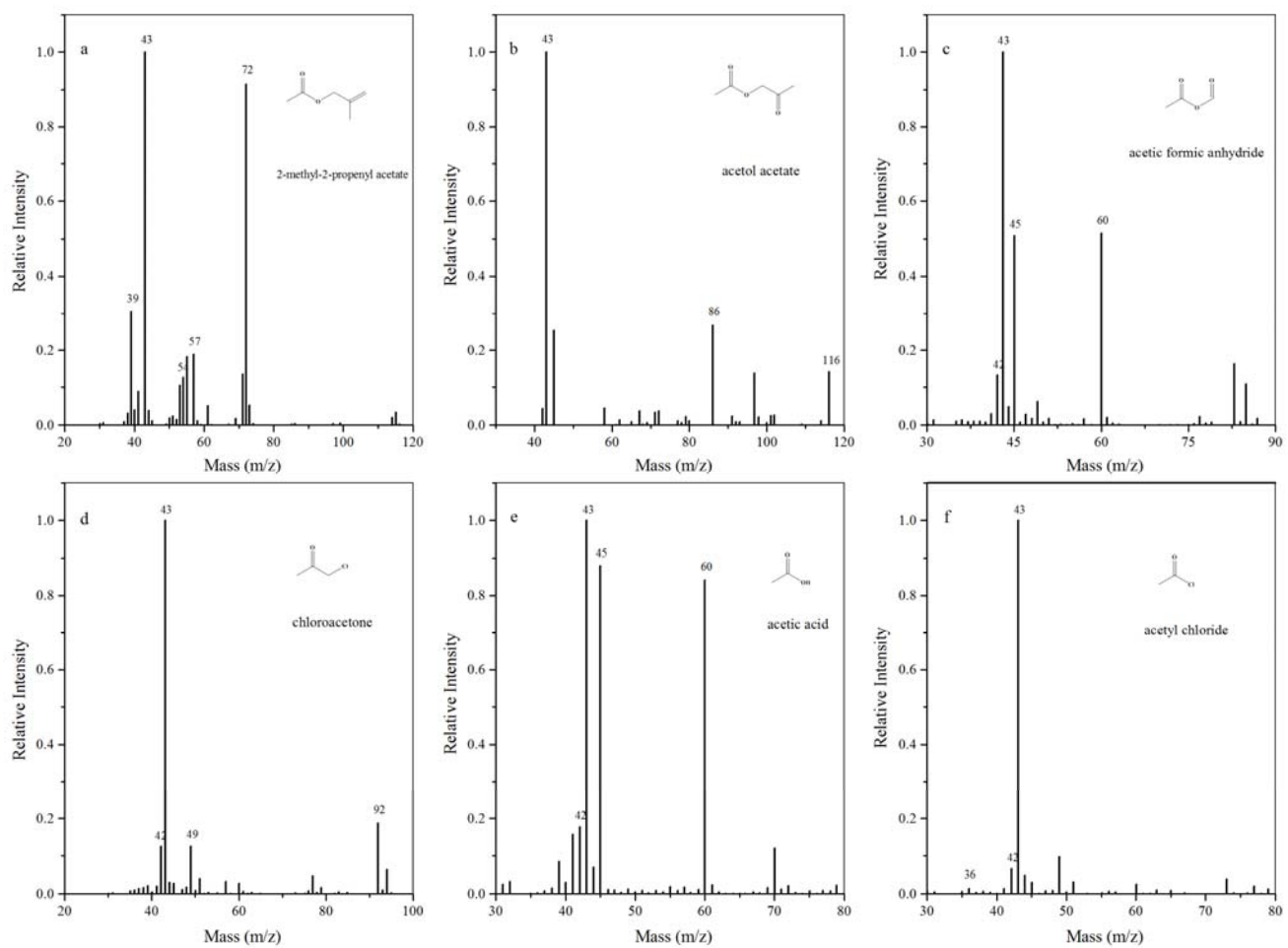


Figure S3. Mass spectra of the products of the reactions of MPA (a) with O₃, OH, NO₃ and Cl.

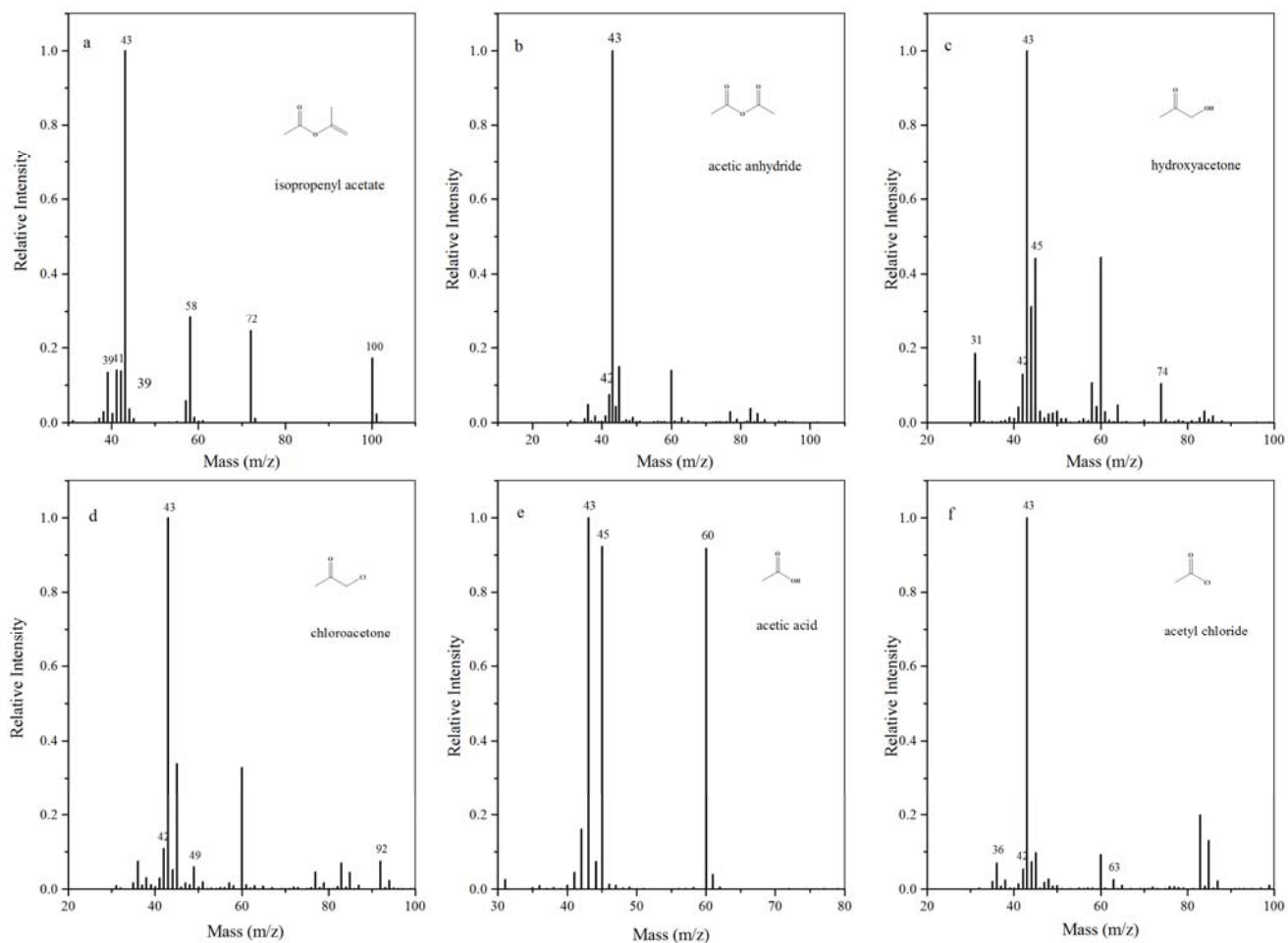


Figure S4. Mass spectra of the products of the reactions of IPA (a) with O₃, OH, NO₃ and Cl.