Atmospheric Chemical Mechanisms: Tackling the Greatest Uncertainties

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From Tonnesen, UC-Riverside
OH propagation path

Ozone formation path

Radical termination, VOC-rich, NOx-limited

From Tonnesen, UC-Riverside
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Nitroaromatics + hv → HONO

HNO₃ + organic (night) → HONO
HNO₃ + surfaces + hv (day) → HONO
NO₂ + soot + hv → HONO

From Tonnesen, UC-Riverside
OH Propagation = \( (f_{\text{OH+HC}})(f_{\text{HO}_2+\text{NO}}) \)

From Tonnesen, UC-Riverside
a. The simplified form:

OH + hydrocarbon (e.g., isoprene)  \rightarrow  HO2, RO2
b. The complex form:

\[ \text{OH} + \text{isoprene} \]
c. The Carbon Bond 6 form: condensed from the complex form; more sophisticated than the simple form.