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The authors describing experimental results of the OH radical initiated oxidation of different trimethylbenzenes carried out in a flow-through apparatus at atmospheric pressure in air. OH has been produced via 254 nm photolysis of ozone in presence of water vapour. Qualitative results of end product analysis are provided from three mass spec techniques. The authors chose relatively high initial reactant concentrations, $(3.5 - 5.2) \times 10^{12}$ molecules cm^{-3}, with a reactant conversion of 62.3 % each within the overall residence time of 80 s. Nothing is said regarding the RO_2 radical profiles in the experiments. It can be assumed from the stated reaction parameters that RO_2 levels are substantially higher than atmospheric. Consequently, especially RO_2 self- and cross reactions are favoured, which are of less importance for the RO_2 fate under atmospheric conditions. Thus, it´s not so surprising that a very big fraction of C_{18} products has been detected. And that´s my main concern: Are the observed product distributions from these experiments relevant for the atmosphere? Some other points that should be considered:

- Line 137 – 141: Why did the authors take nitrous oxide as precursor for NO and NO_2? And again here: What is the NO and NO_2 profile in the experiments? One example from modelling should be given in the manuscript in order to allow the readership to get an impression for this.
- Line 197 – 203: From kinetic perspective, secondary chemistry, i.e. OH + product steps, cannot be neglected for a reactant conversion of 62.3 % in this system. What does it mean "one oxidation lifetime"?
- Table 1: The authors also used huge ozone concentrations in their runs, $(1.7 - 9.6) \times 10^{13}$ molecules cm^{-3}. After first OH attack the trimethylbenzene loses its aromaticity forming a series of unsaturated closed-shell products. What about the possible ozonolysis of these products?
- Schemes: It should be clarified what the authors mean with "stabilized products".
- Figure 5: A C_{18} product fraction of more than 50% is very surprising for me. This finding should be discussed in respect of rates of the competing steps R5 – R8.