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A comparative and experimental study of the reactivity with nitrate radical of two terpenes: α-terpinene and γ-terpinene

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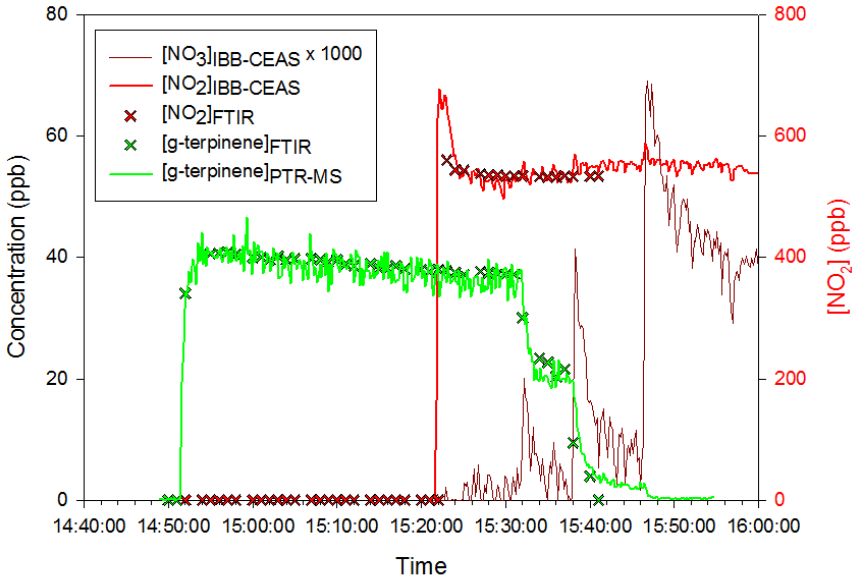

Figure S1: Typical time profiles of an absolute rate determination experiment (2017/01/30) of signals measured by PTR-MS (lines) and FTIR (crosses).

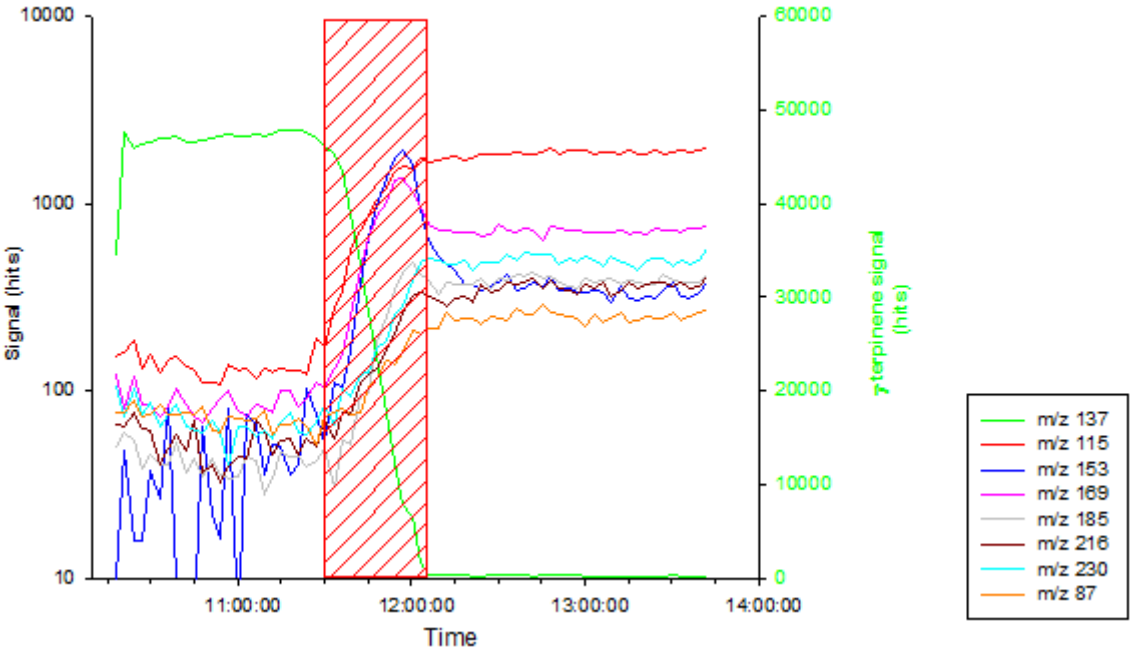

Figure S2 : Example of typical time profiles of γ-terpinene and products detected with PTR-MS for the experiment of the 2017/25/04

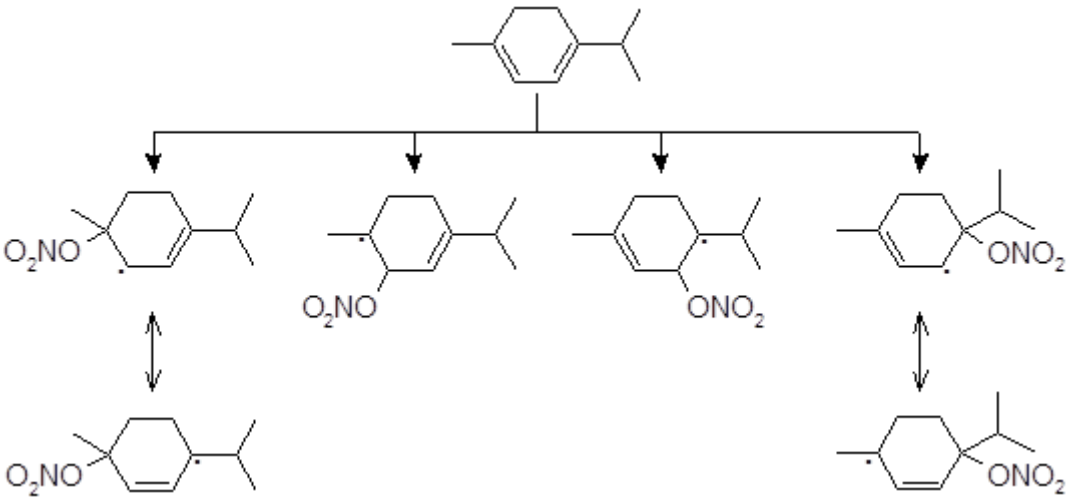

Figure S3: The 4 nitro-alkyl radicals and the two limit forms generated by the reaction between α-terpinene and NO_3 radical.

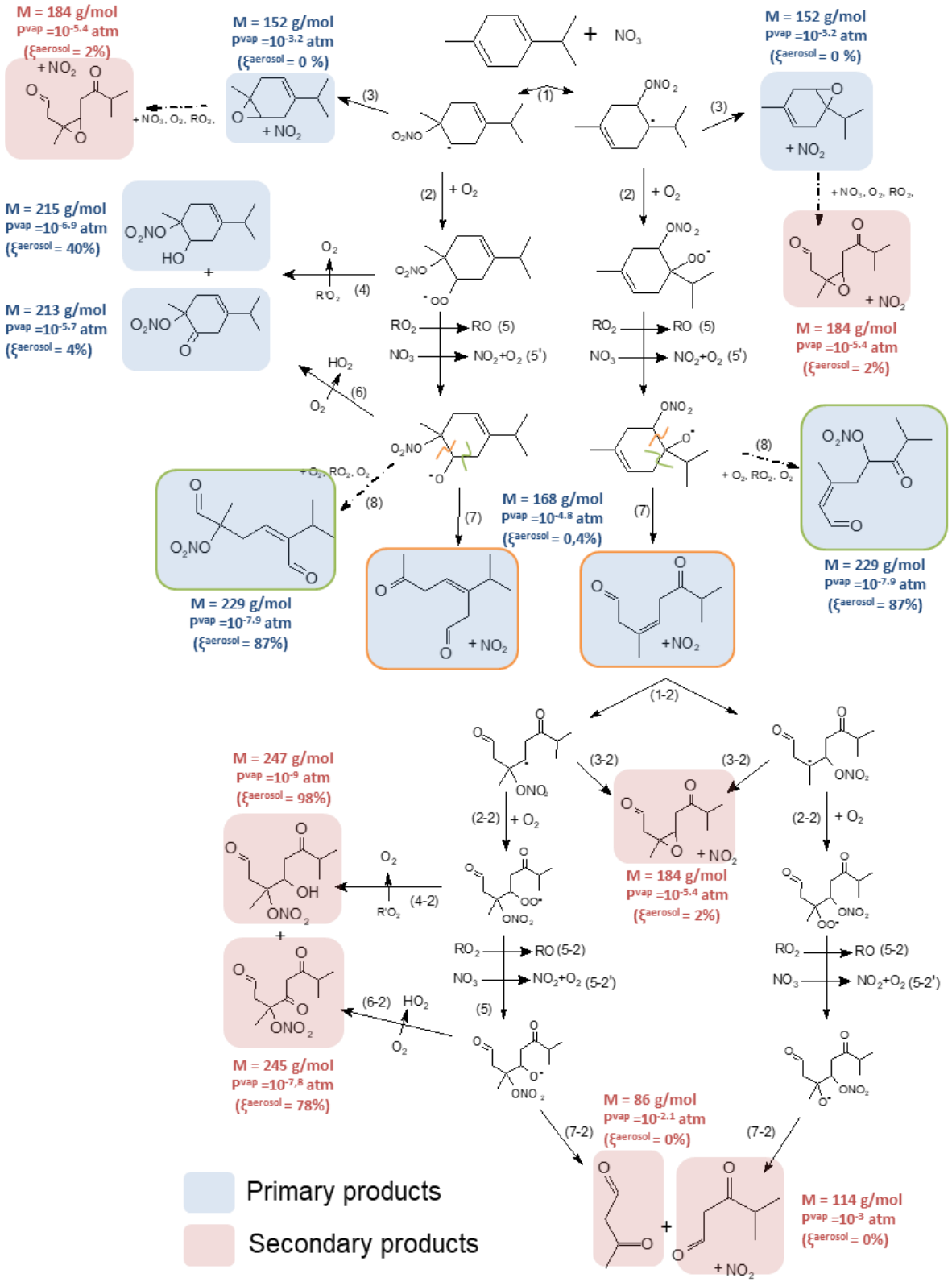

Figure S4: Proposed mechanism for γ-terpinene. First generation products are squared in blue and second generation ones in red. Alkoxy fragmentation products are squared according to the location of the fragmentation. Molecular weight, vapor pressures and the gas/particle partition are shown next to the molecules.

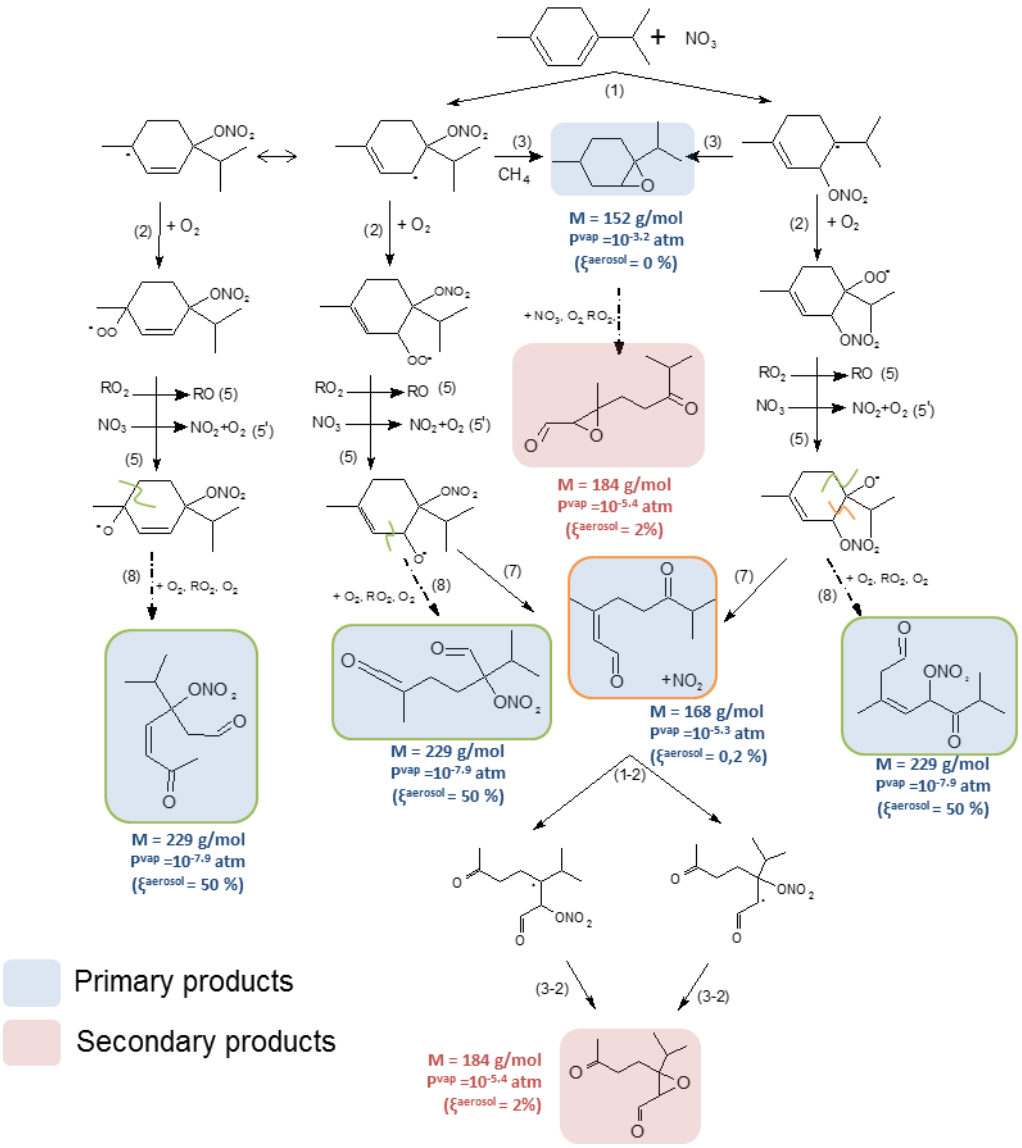

Figure S5: Proposed mechanism for α-terpinene. First generation products are squared in blue and second generation ones in red. Alkoxy fragmentation products are squared according the location of the fragmentation. Molecular weight, vapor pressures and the gas/particle partition are shown next to the molecules. The reaction of the primary epoxide product is shown in the black square.