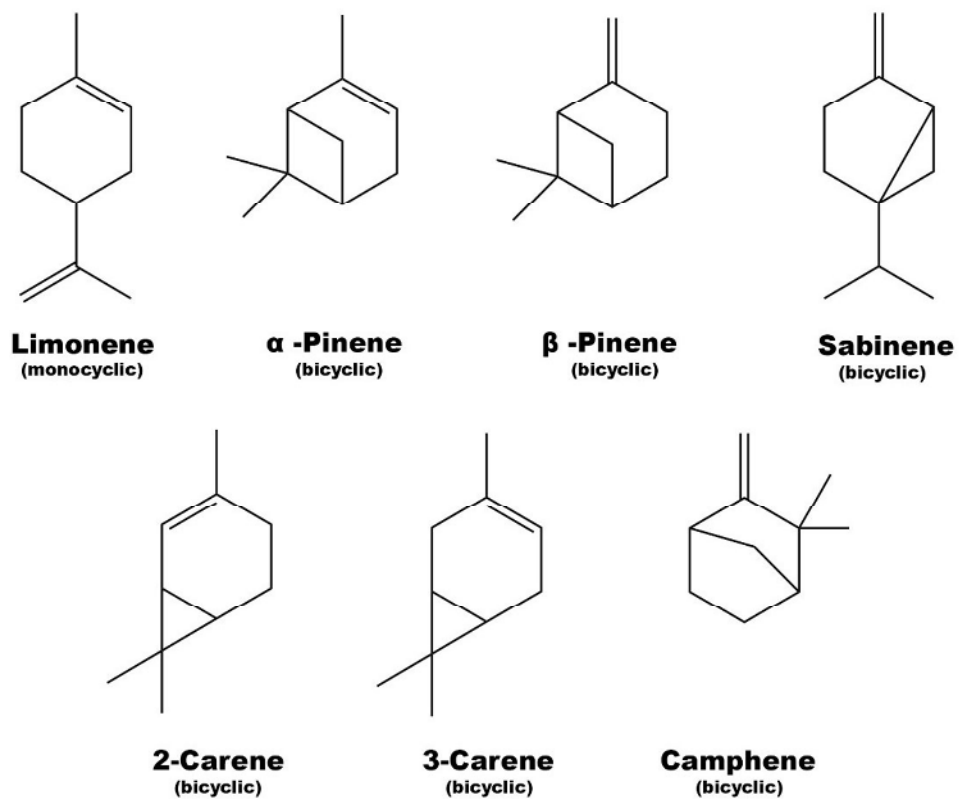




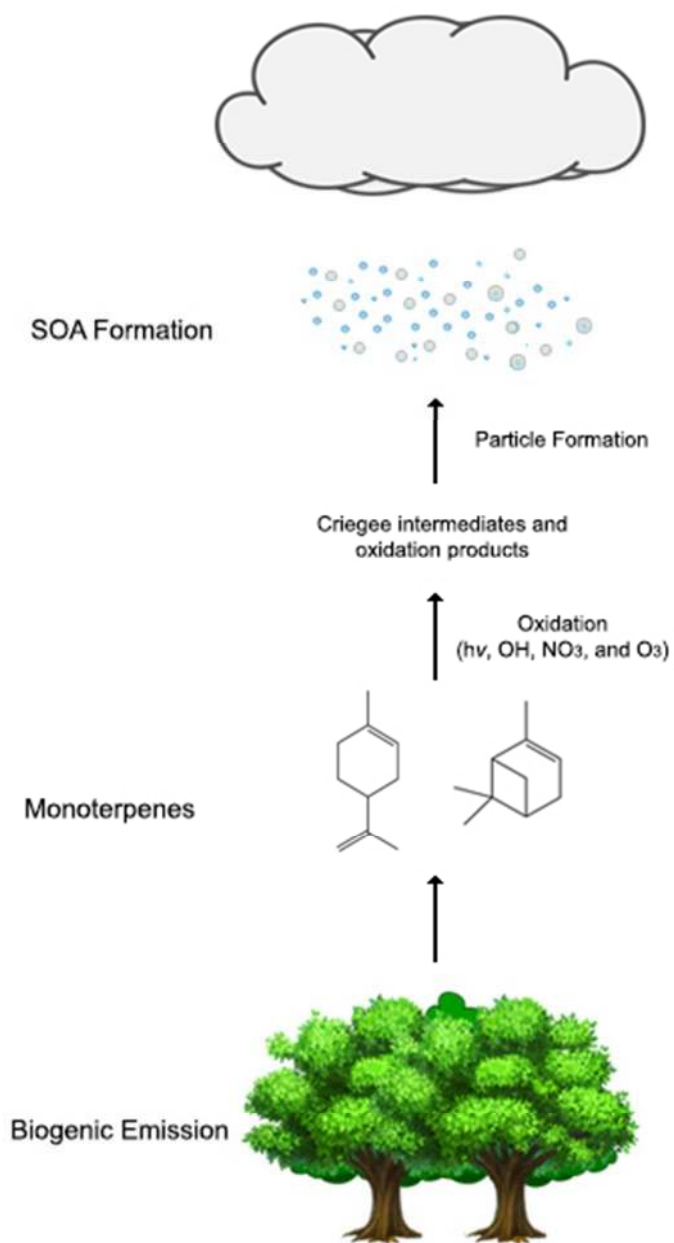
## The Ozonolysis of Cyclic Monoterpenes: A Computational Review

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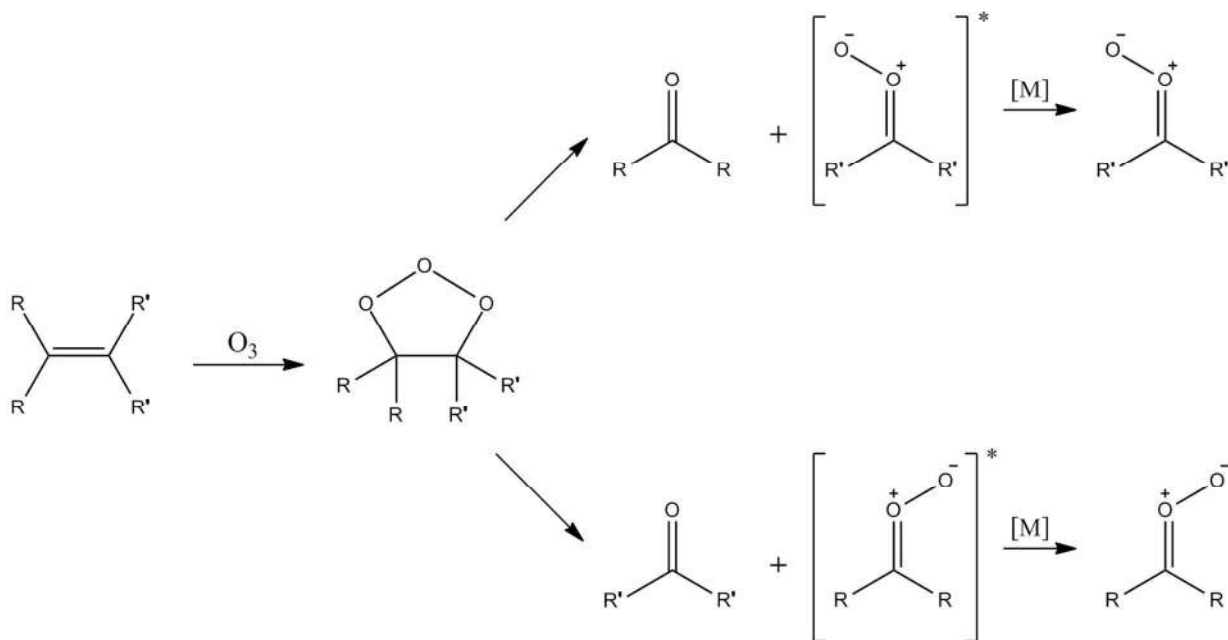
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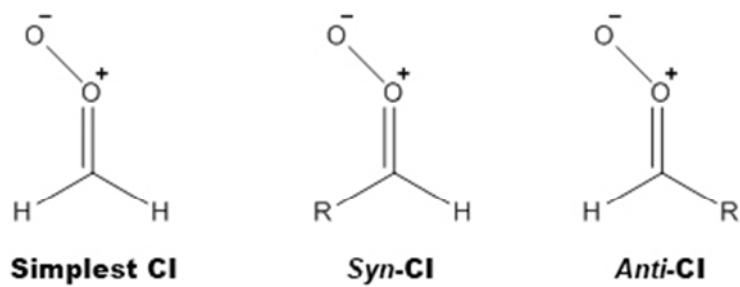
**Fig. 1** Structures of selected monoterpenes.



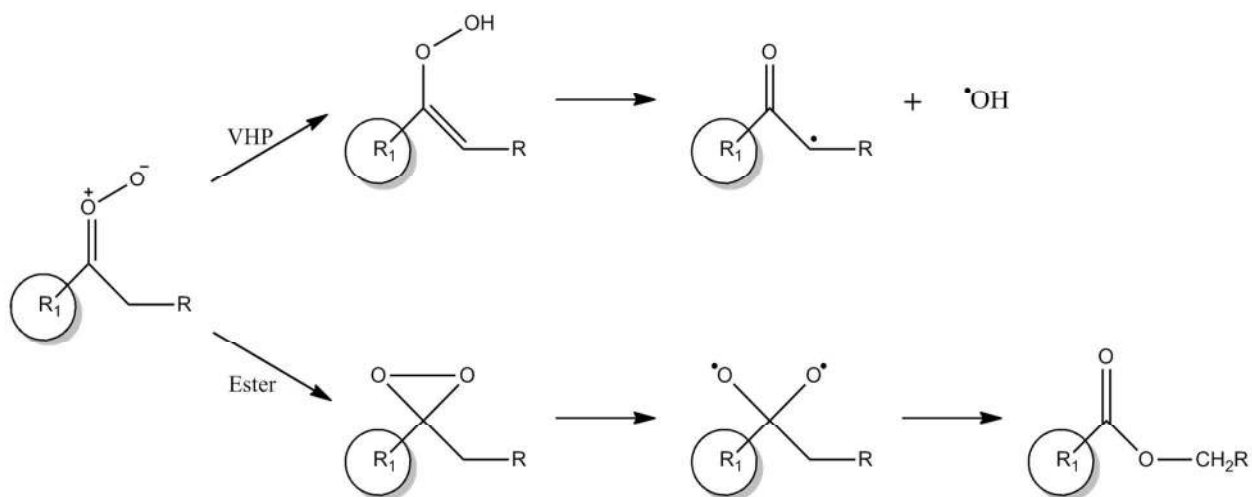
**Fig. 2** SOA formation from interactions of monoterpenes with oxidative species.



**Fig. 3** Criegee mechanism,  $R$  and  $R'$  are arbitrary functional groups.

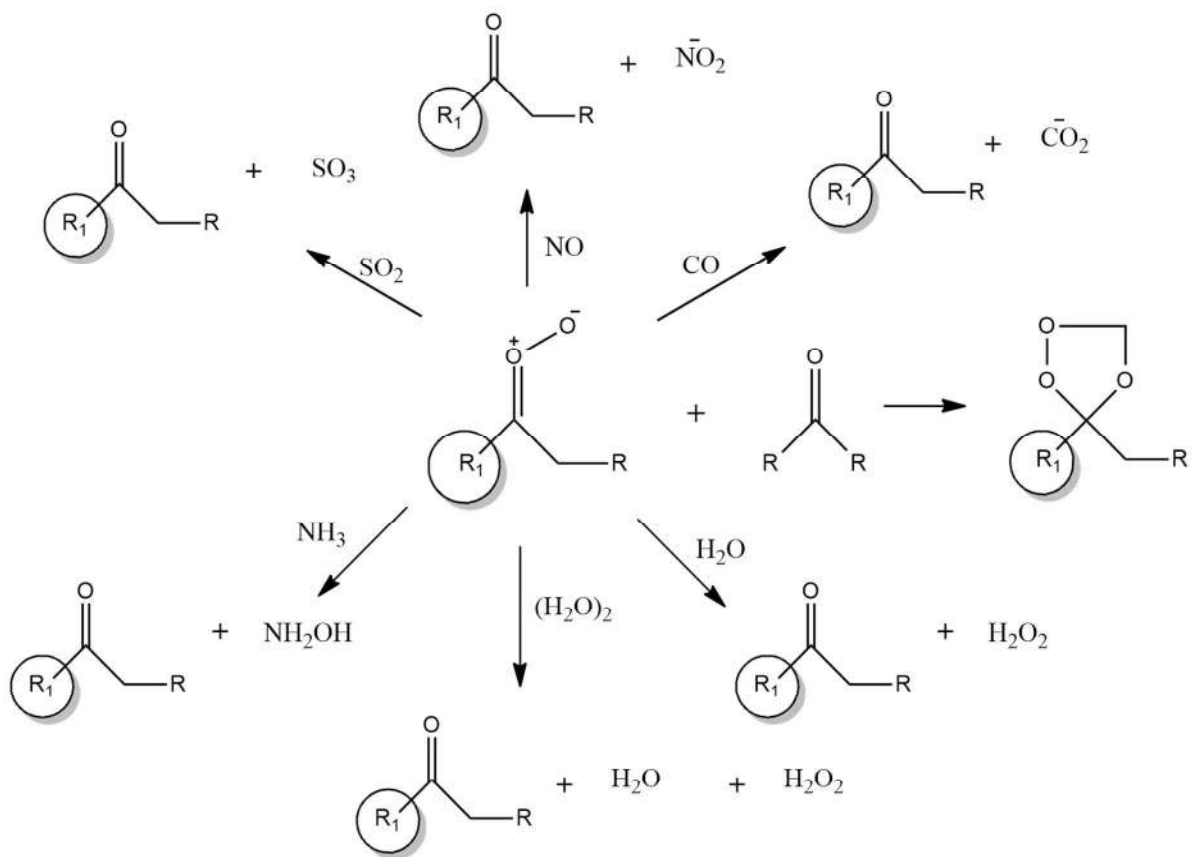


**Fig. 4** Structures of the Criegee intermediate, ' $R$ ' is an arbitrary functional group.

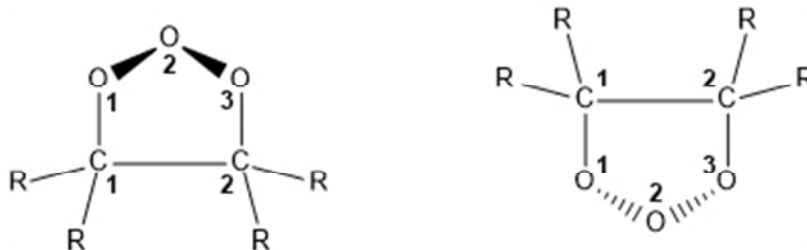


**Fig. 5** Proposed unimolecular (VHP and Ester) mechanistic pathways of the CI, 'R<sub>1</sub>' is a cyclic group.

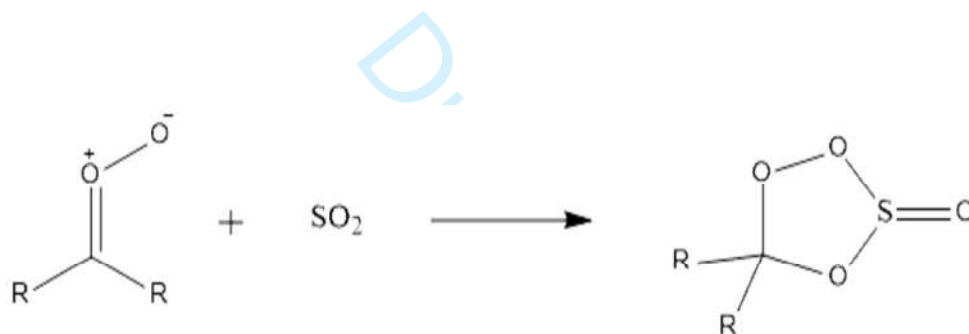
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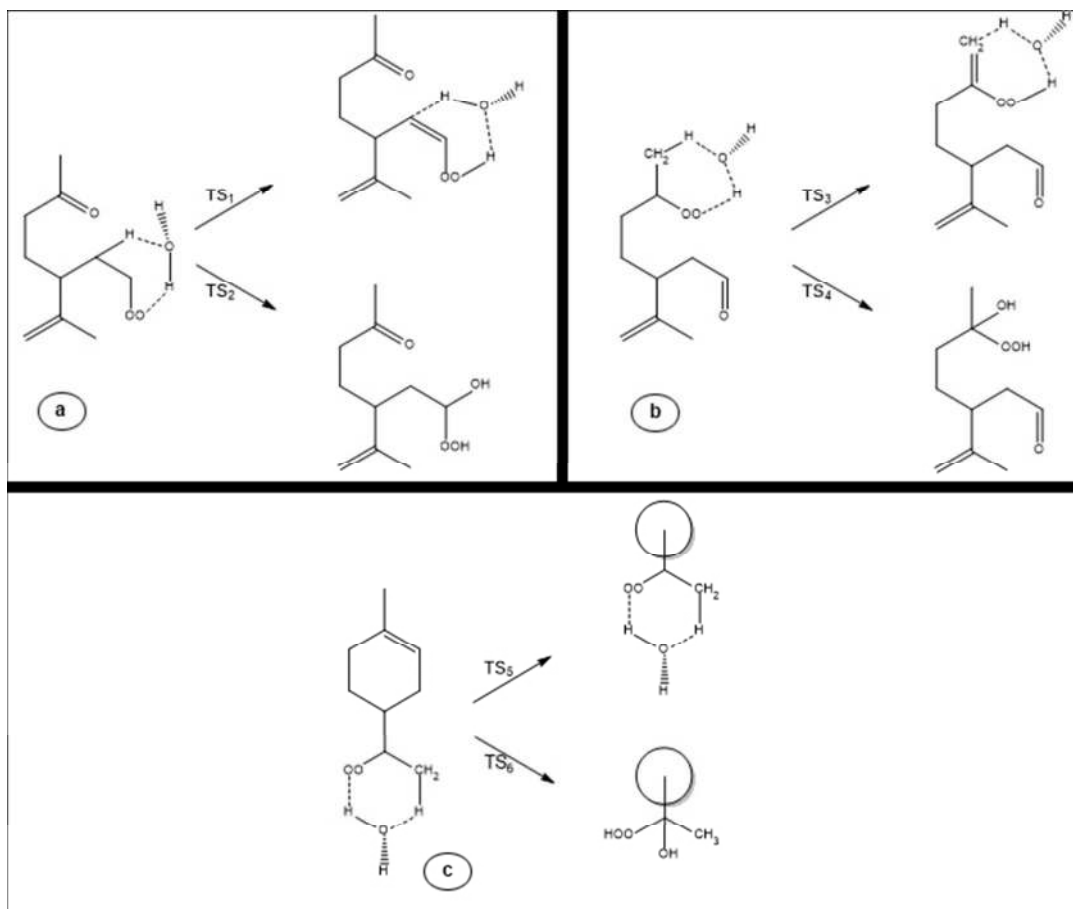
**Fig. 6** Proposed pathways for the bimolecular reactions of the CI, ' $R_1$ ' denotes a cyclic group.



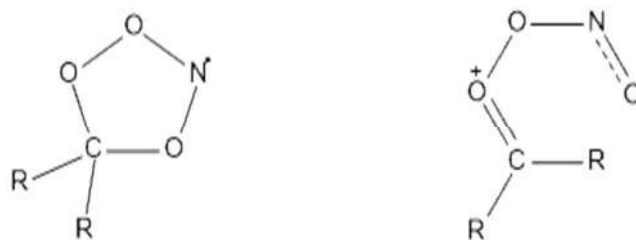
**Fig. 7** Upward and downward additions and POZ.



**Fig. 8** Bimolecular reactions of SCI with  $\text{SO}_2$  via the formation of a cyclic adduct.



**Fig. 9** Pathways for the SCI + H<sub>2</sub>O reactions. These SCI result from the endo and exo double bonds ozonolysis of limonene, a, b and c are *anti*-CI, *syn*-CI and another *syn*-CI, respectively.<sup>49</sup>



**Fig. 10** Cyclic and acyclic addition of NO to CI.