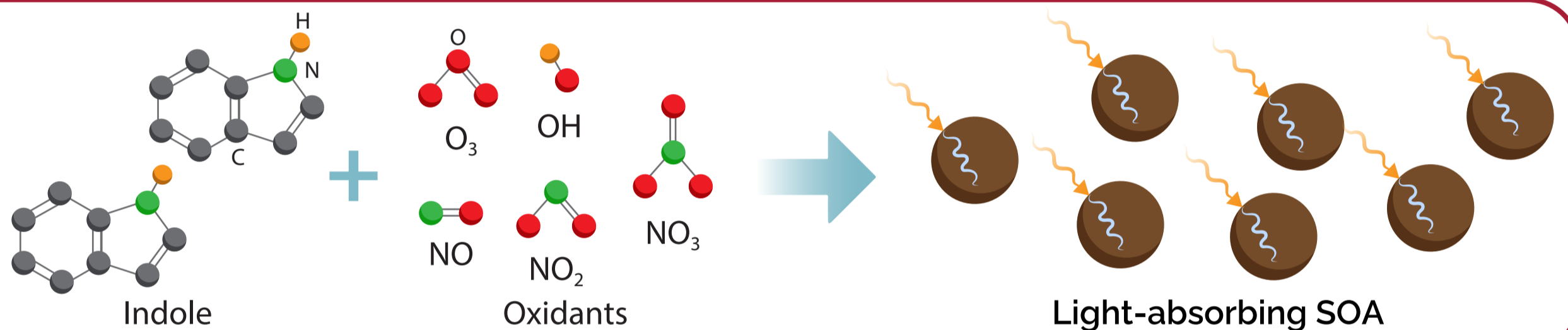


Stressed plants and animal husbandry facilities emit large amounts of indole, a volatile organic compound that, when oxidized, forms secondary organic aerosols (SOA) that absorb light

What is the effect of the resulting SOA and relative humidity on air quality and visibility?

Oxidizing indole at different levels of relative humidity (<2%, 25%, and 50%)

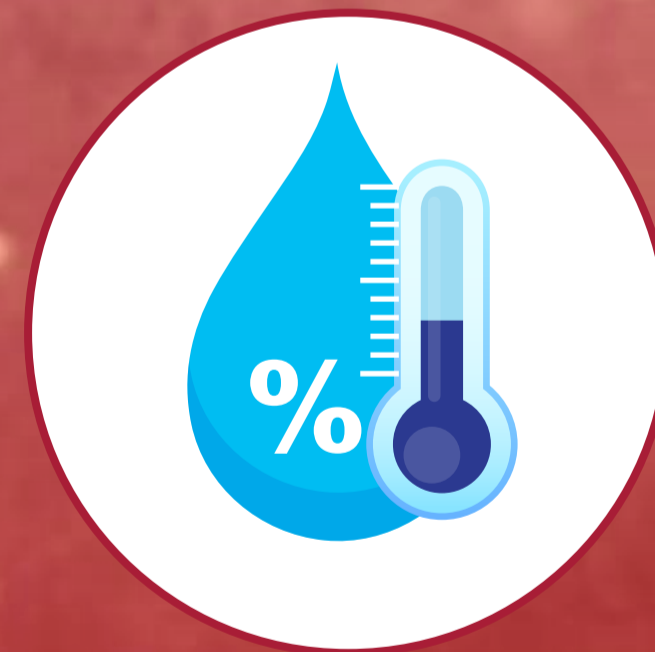


Degradation of visibility



Indole-produced SOA absorbs sunlight more strongly than SOA from other volatile organic compounds

Effect of relative humidity



Different indole oxidation products form under dry and humid conditions

Relative humidity plays a role in the formation of SOA, which contributes to the degradation of air quality and visibility