

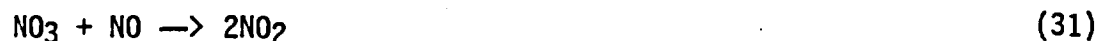
Dinitrogen pentoxide which is in equilibrium with nitrogen trioxide and nitrogen dioxide can dissociate or react with water to form nitric acid (HONO₂):



Additional reactive pathways that can take place between oxygen atoms and NO₂ and NO include:



Also, NO and NO₃ can react to regenerate NO₂:



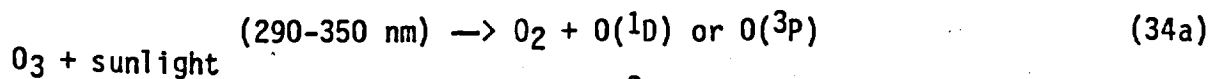
Nitrous acid is produced by:



and may react bimolecularly to regenerate the original reactants:



The unexcited and first excited electronic state of the oxygen atom are produced by ozone photolysis in sunlight:



The singlet-D oxygen [O(¹D)] atom is much more reactive than the ground state triplet-P oxygen [O(³P)] atom. For example, it reacts