

Stratospheric Chemistry: The Ozone Layer

Topics covered

- Review-Gas Laws & Thermodynamics Principles
- UV radiation and its impact
- Chemical reactions induced by light
- The Ozone Layer

Note: The class website is <http://www.nd.edu/~pkamat/chem20204.html>

- All lecture notes and homework assignments will be posted on the web
- We will cover Ozone formation and depletion in the stratosphere in 3 classes. Read Chapter 1 and 2 before the start of next class and complete the assignment 1 posted on the website. The chemistry of the stratosphere is complex. It is important that you know the basic aspects covered in Chapter 1 and 2.
- The demonstrations in today's class show how light can transfer energy and initiate photochemical processes.

Keypoints to remember:

Ideal gas law  $PV = nRT$  -useful for determining concentrations

$E$  (kJ/mole) =  $hc/\lambda = 119627/\lambda$  or  $E$  (eV) =  $1240/\lambda$  (nm)

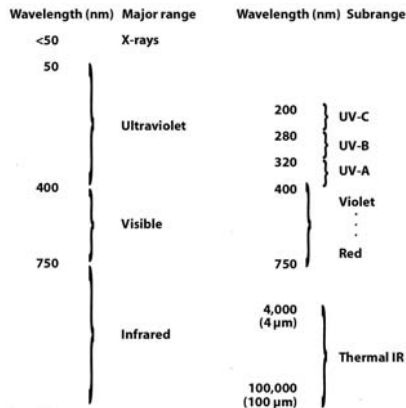
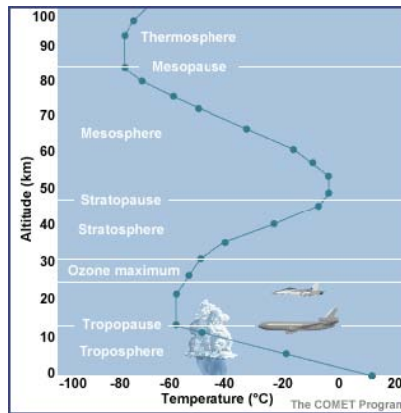


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Formation and destruction of ozone

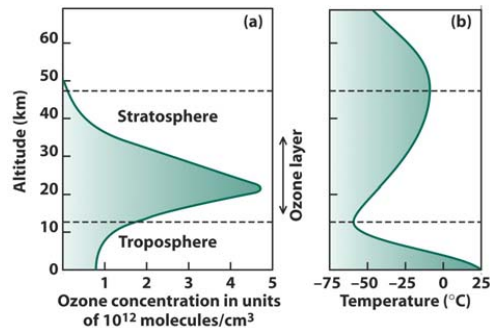
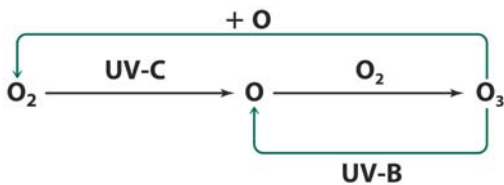


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