



The major chain terminating steps include:



The reaction sequence for O_3 production involves converting NO to NO_2 at a rate sufficiently high to maintain a NO_2/NO ratio to sustain the observed background levels of O_3 .



In general, reactions (15) through (17) govern the ozone concentration levels present in the sunlight irradiated well-mixed atmosphere at any instant and to a first approximation the steady state relationship, Leighton (1961).

$$\frac{(\text{NO}_2) k_{15}}{(\text{NO}) k_{17}} = (\text{O}_3)$$

provides an accurate estimate of ozone given the ratio of $(\text{NO}_2)/(\text{NO})$ and k_{15}/k_{17} . The photolytic rate constant k_{15} is directly related to the integrated actinic solar flux over the wavelength range 290 - 430 nm.