

2. The initial rates may be large, but quickly approach zero.

3. Except for the carbon (soot) reaction, solid surface reactions do not appear to be effective pathways for H_2SO_4 formation in the troposphere.

2.3.6 Estimates of SO_2 Oxidation

It is of interest at this point to compare the rates of SO_2 oxidation by the more important reactions identified in the previous sections of Chapter 2. The important reactions for gas-phase and aqueous-phase oxidation are listed in Table 2-11, and rates of SO_2 oxidation for an assumed set of conditions are present. These calculations ignore the non-homogeneous nature of the troposphere and assume that all of the reactants are well-mixed. (The more general case is treated in Section 2.3.7).