

Table 5. Conversion of SO₂ in Power Plant and Smelter Plumes (cont.)

Source	SO ₂ Oxidation Rate (% h ⁻¹)	Comments
Garber et al. (1980)	<1	<ul style="list-style-type: none"> -Northport oil-fired power plant (41°N) -a wide range of meteorological conditions were examined. The data suggest a weak positive correlation of conversion rate with temperature, water partial pressure and isolation
Hegg and Hobbs (1980)	0 to 5.7	<ul style="list-style-type: none"> -five coal-fired power plants, W. and Midwest U.S.A. -various times of year -evidence of photochemical reactions; conversion depended on u.v. light intensity
Gillani et al. (1980)	rate = 0.03 R.H.O ₃ R = solar radiation H = mixing height O ₃ = background ozone	<ul style="list-style-type: none"> -plumes from Labadie, Cumberland and Johnsonville power plants -for dry conditions only
Chan et al. (1980)	<0.5	<ul style="list-style-type: none"> -Sudbury smelter plume (47°N) -no correlation of rate with temperature, relative humidity
Eatough et al. (1980)	<0.5 to 6	<ul style="list-style-type: none"> -Western U.S. smelter and power plant plumes -positive temperature dependence of oxidation rate; data are consistent with a homogeneous mechanism