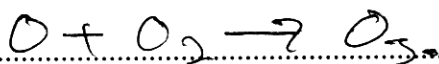


Question 21 (7 marks)

Evaluate the impact of industrial sources of sulfur dioxide and nitrogen oxides on the environment, making use of appropriate chemical equations.

7

Sulfur dioxide and nitrogen oxides released into the atmosphere from combustion, ~~and~~ and other sources has a detrimental effect on the environment. When the SO_2 and NO_x goes up into the atmosphere it is split up in the troposphere by UV light $\text{SO}_2 + \text{light} \rightarrow \text{SO} + \text{O}$. This produces oxygen free radicals which are detrimental to the atmosphere. They can combine with oxygen to produce ozone which can be a lower atmosphere pollutant.



Ozone is detrimental to human health when inhaled or exposed to.

The sulfur and nitrogen oxides are however stable so they are washed out of the atmosphere by the rain. There aren't indications of significant build up of either.