Oxidation and reduction reactions

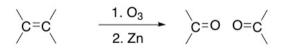
Reduction adds electrons Oxidation removes electrons

Reduction Reaction

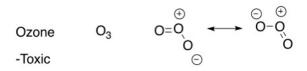
| Reduction Reaction | | |
|----------------------------------|----------------|---|
| H ₂ C=CH ₂ | H ₂ | н н н-с-с-н |
| 12 e ⁻ outer shell | | H H 14 e ⁻ outer shell |
| | | |

As there is an increase in the electron count in the outer shell, this is a reduction of ethylene.

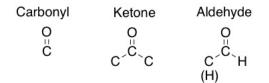
Ozonolysis



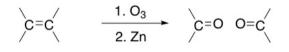
Ozonolysis (lysis = cleavage)



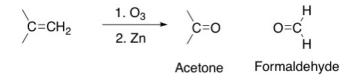
Examples of carbonyl groups (part of many functional groups)



Reaction scheme of ozone



Example



Ozonolysis Mechanism (lysis = cleavage)

