

- CO₂ and N₂ are desorbed from catalyst surface

MONITORING ENVIRONMENTAL POLLUTION

- Infrared spectroscopy

2.4.2 GREEN CHEMISTRY

PRINCIPLES OF CHEMICAL SUSTAINABILITY

- Less hazardous chemicals
- High atom economy
- Using renewable resources
- Seeking alternative energy sources
- Non-toxic wastes

USING RENEWABLE RESOURCES

- Plant-based substances
- Solar energy
- Rather than finite resources that will eventually run out

SAVING MONEY

- Less hazardous waste to treat
- Using fewer chemicals
- Less energy
- Using catalysts

PREVENTING WASTE

- Fewer materials used
- Recycled waste
- Used as a useful by-product

MAXIMISING ATOM ECONOMY

- Designing synthetic methods
- Maximise all materials used

RECYCLING AND BIODEGRADABILITY

- Materials should be recycled
- Should be easily broken down in environment

INTERNATIONAL TREATIES TO REDUCE HAZARDOUS CHEMICALS

- Montreal Protocol (protects ozone layer)
- Stockholm Convention on Persistent Organic Pollutants (POPs)
- Rio Declaration on Environment and Development (sustainable development)

USING CO₂

- CO₂ waste can be collected and used

CO₂ IN FOAM