

CIE Chemistry IGCSE

Topic 12 - Sulfur

Flashcards



Name some of the sources of sulfur



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- Volcanic emissions
- Metal ores like copper pyrite and zinc blende
- Hot springs
- Hydrothermal vents



What is the Contact Process?

(extended only)



What is the Contact Process? (extended only)

An industrial process used to make sulfuric acid. It is made by oxidising sulfur dioxide in the presence of a solid catalyst. Sulfur trioxide is then reacted with water to form sulfuric acid.



What conditions are required for the Contact Process? (extended only)



What conditions are required for the Contact Process? (**extended only**)

Temperature around 450°C

Vanadium oxide catalyst (V_2O_5)

Pressure of 2 atm



Write the chemical equations for the reactions that takes place in the Contact Process
(extended only)



Write the chemical equations for the reactions that takes place in the Contact Process?

(extended only)



How is sulfur used in the manufacture of sulfuric acid?



How is sulfur used in the manufacture of sulfuric acid?

Sulfur is burned in air to form sulfur dioxide. This is converted into sulfur trioxide by reacting it further with oxygen. Sulfuric acid is produced when sulfur trioxide reacts with water.



What are the uses of sulfur dioxide?



What are the uses of sulfur dioxide?

- Bleach in the manufacture of wood pulp for paper.
- Food preservative as it kills bacteria.



What are the properties of sulfuric acid?
(extended only)



What are the properties of sulfuric acid? (extended only)

- Strong acid (fully dissociates in solution, releasing H^+ ions).
- Corrosive.
- Good electrolyte.
- Colourless liquid.



What are the uses of sulfuric acid?
(extended only)



What are the uses of sulfuric acid? (extended only)

- Production of fertilisers.
- Processing metals.
- Manufacture of chemicals (e.g. paints, detergents, explosives, drugs, sulfate salts).
- Washing impurities out of gasoline in petroleum refining.

