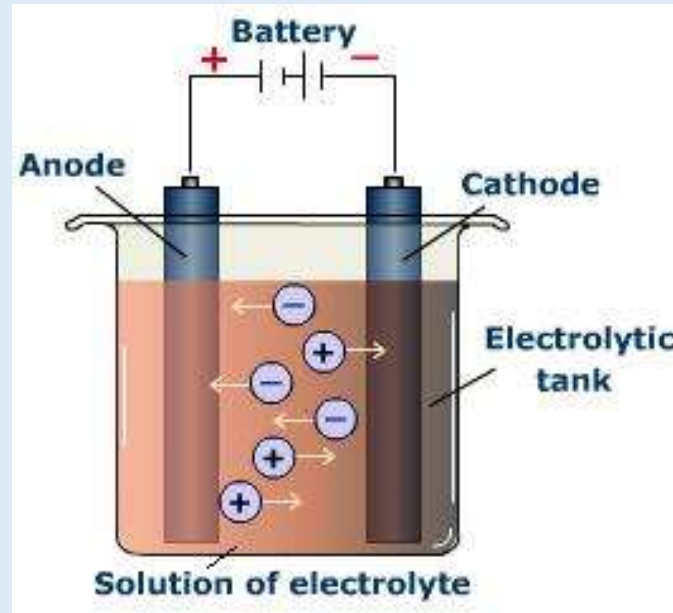


Aluminium Smelter an overview

by

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Electrolytic process



- DC to drive an otherwise non-spontaneous chemical reaction.
- Electrolysis is commercially important as a stage in the separation of elements from naturally occurring sources such as ores using an electrolytic cell.

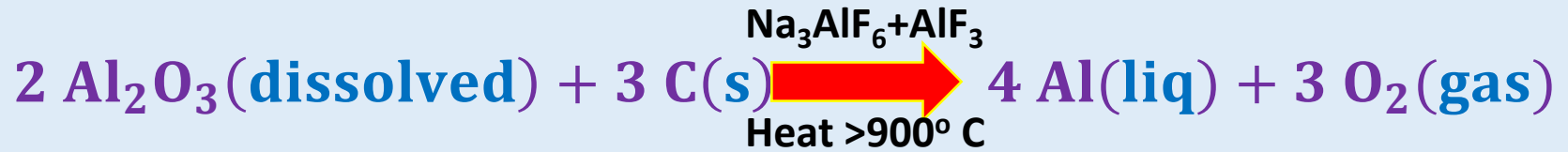
Smelter

- Extraction of metals from its ore
- Production of silver, iron, copper, aluminium etc.
- Smelting uses
 - Heat
 - A chemical [reducing agent](#) to decompose the ore
- Driving off other elements as gases or [slag](#)
- Reducing agent is commonly a source of [carbon](#) such as [coke](#)
- The carbon (or carbon monoxide derived from it) removes [oxygen](#) from the ore, leaving behind the elemental metal

Aluminium smelter



The real process



Electrolytic reduction not aqueous electrolyte process

Requirement-

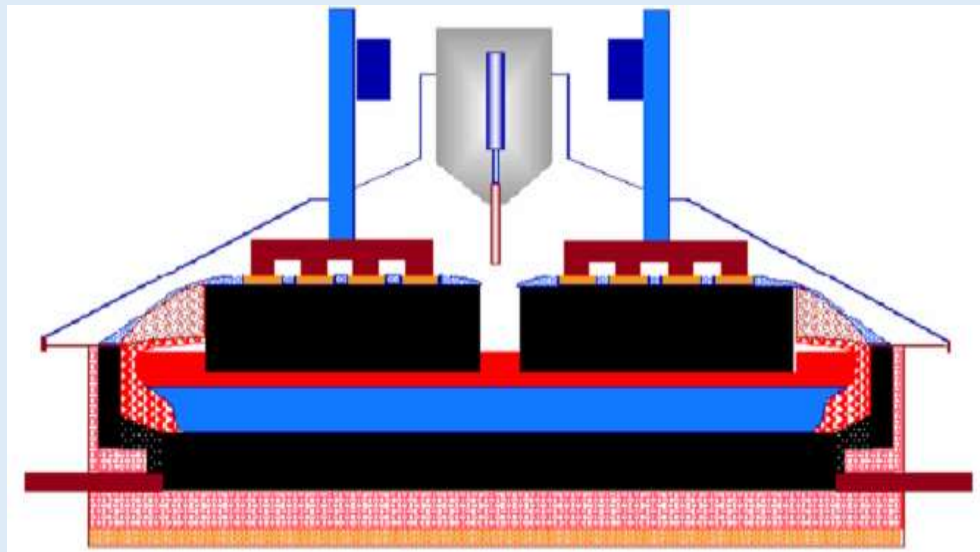
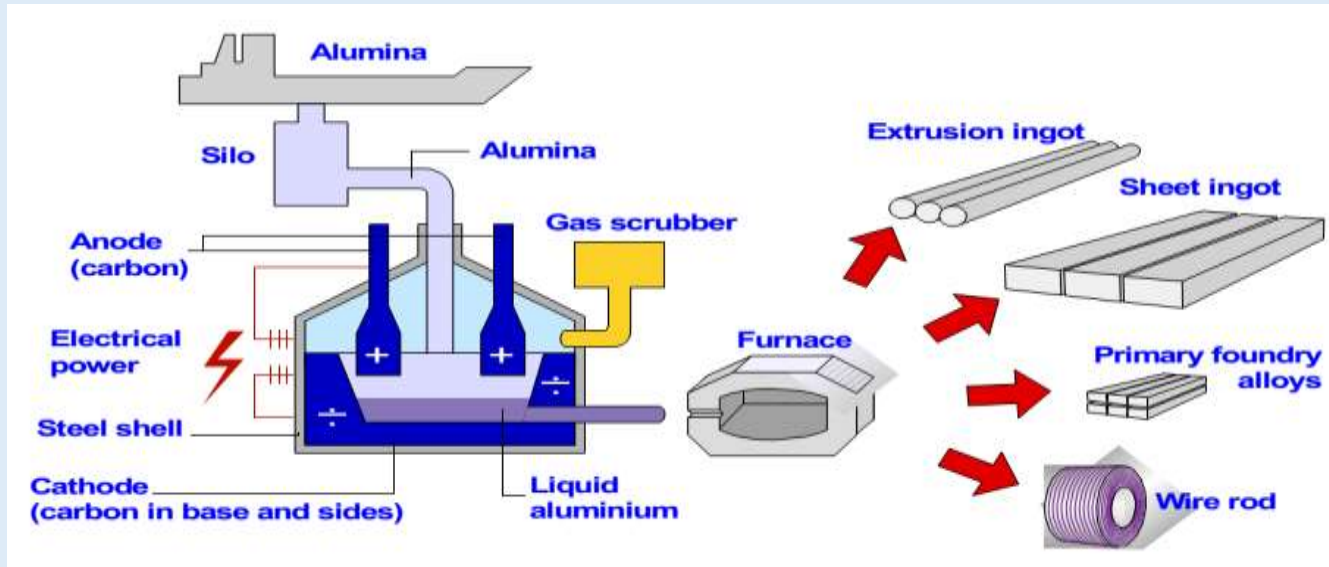
Electrolyte

Anode

Cathode

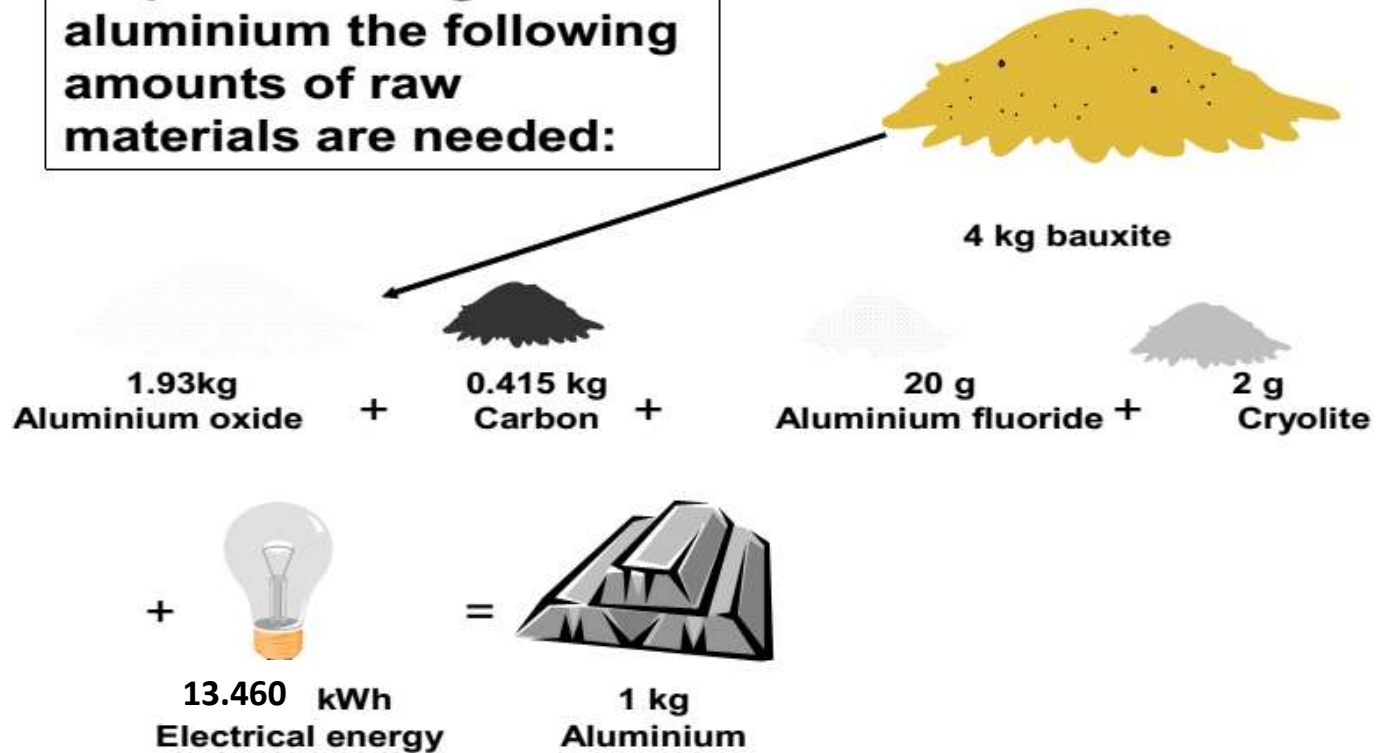


Graphical info.



Details of production

To produce 1 kg of aluminium the following amounts of raw materials are needed:



Real image



End product

