## Metallurgist

Metallurgist's research, control and develop processes that are used in extracting minerals from ore (rock) for refining metals.



## Overview

Metallurgists are mineral experts specialising in the extraction of metals from their ores. They oversee, develop and test processes used in metal extraction and in the alloying and casting of materials to produce commercial metal products. Metallurgists work at mines, mineral processing sites, laboratories, research centres or offices.



## Day-to-day

- Design processes to separate valuable minerals from ores and to reduce minerals to metals and alloys
- Design and operate plants to produce concentrated mineral products and metals
- Supervise sampling from various stages of processing for laboratory analysis and testing
- Modify and develop processes to improve recovery and quality as well as to reduce waste and costs
- Develop and operate processes to meet environmental requirements
- Advise operators on production methods and quality control systems
- Communicate with other professionals (such as geologists, mining engineers, chemists, administrators and managers) to improve efficiencies
- Control expenditure and prepare budgets and technical reports

## To become a Metallurgist

A bachelor's degree in science or Engineering with a major in metallurgical or chemical engineering is required to become a Metallurgist.

Graduate Metallurgists often start their careers as Metallurgical Technicians before moving into roles as Metallurgists.

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