

Properties of Metals

Most elements are metals. Metals exhibit the following properties:

- usually solid at room temperature (mercury is an exception)
- high luster (shiny)
- metallic appearance
- good conductors of heat and electricity
- malleable (can be bent and pounded into thin sheets)
- ductile (can be drawn into wire)
- corrode or oxidize in air and sea water
- usually dense (exceptions include lithium, potassium, and sodium)
- may have very high melting point
- readily lose electrons

Properties of Metalloids or Semimetals

Metalloids have some of the properties of metals and some nonmetallic characteristic.

- dull or shiny
- usually conduct heat and electricity, though not as well as metals
- often make good semiconductors
- often exist in several forms
- often ductile
- often malleable
- may gain or lose electrons in reactions

Properties of Nonmetals

Nonmetals exhibit very different properties from metals.

Nonmetals display some or all of the following characteristics:

- dull appearance
- usually brittle
- poor conductors of heat and electricity
- usually less dense, compared to metals
- usually low melting point of solids, compared with metals
- tend to gain electrons in chemical reactions