Name : Phosphorus

Symbol : P

Atomic number (Z) : 15

Atomic mass : 30.973761998

Group : 15

Period : 3

block : p

Color : Colorless

Phase :solid

Oxidation states : 5, 4, 3, 2,1, -1, -2, -3

Electronegativity : Pauling scale: 2.19

Melting point :

Boiling point :

Density at stp : white: 1.823 g•cm-3

red: ˜ 2.2–2.34 g•cm-3

violet: 2.36 g•cm-3

black: 2.69 g/cm3

Triple point :

Critical point :

Heat of fusion : white: 0.66 kJ/mol

Heat of vaporization : white: 51.9 kJ/mol

Molar heat capacity : white: 23.824 J/(mol•K)

Ionization energies : 1st: 1011.8 kJ/mol

Covalent radius : 107±3 pm

Van der Waals radius : 180 pm

Speed of sound :

Crystal structure : body-centred cubic (bcc)

Magnetic ordering : diamagnetic

Discovery : Hennig Brand (1669)