Name : Ruthenium

Symbol : Ru

Atomic number (Z) : 44

Atomic mass : 101.07

Group : 8

Period : 5

block : d

Color : Silver

Phase : Solid

Oxidation states : -4, -2, 1, 2, 3, 4, 5, 6, 7, 8

Electronegativity : Pauling scale: 2.2

Melting point : 2607 K (2334 °C, 4233 °F)

Boiling point : 4423 K (4150 °C, 7502 °F)

Density at stp : 12.45 g/cm3

Triple point :

Critical point :

Heat of fusion : 38.59 kJ/mol

Heat of vaporization : 619 kJ/mol

Molar heat capacity : 24.06 J/(mol•K)

Ionization energies : 1st: 710.2 kJ/mol

Covalent radius : 146±7 pm

Van der Waals radius :

Speed of sound : 5970 m/s (at 20 °C)

Crystal structure : hexagonal close-packed (hcp)

Magnetic ordering : paramagnetic

Discovery : Karl Ernst Claus (1844)

Naming : after Ruthenia (Latin for: medieval Kyivska Rus' region