3d BRAVAIS LATTICES

7 Lattice Systems; 14 Bravais Lattices

Triclinic

$\alpha, \beta, \gamma \neq \pi/2$; $a \neq b \neq c$

a = b = c

Rhombohedral

$\alpha = \beta = \gamma \neq \pi/2$; $a = b = c$

$\alpha = \beta = \pi/2$

Monoclinic $\beta = \gamma = \pi/2; \alpha \neq \pi/2$

$\alpha = \beta = \gamma = \pi/2$

Hexagonal

$\alpha = \pi/3$
$\beta = \gamma = \pi/2$
$a = c \neq b$

$\alpha = \pi/3; \beta = \gamma = \pi/2$

Orthorhombic

$\alpha = \beta = \gamma = \pi/2;$

$a \neq b \neq c$

$a = b \neq c$

Tetragonal $\alpha = \beta = \gamma = \pi/2;$

a = b = c

Cubic $\alpha = \beta = \gamma = \pi/2;$ $a = b \neq c$