

Crystal Colors by Transition Element (All oxidation states, organo-metallic and coordination single transition element complexes)\*

Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
Colorless	Red	Green	Yellow	Yellow	Red	Red	Green	Blue	Colorless
Yellow	Yellow	Red	Red	Colorless	Orange	Orange	Red	Green	Yellow
Red	Orange	Blue	Green	Brown	Yellow	Brown	Brown	Red	Red
Orange	Colorless	Brown	Orange	Red	Brown	Blue	Blue	Colorless	Orange
Brown	Green	Yellow	Brown	Orange	Green	Green	Yellow	Brown	Brown
Blue	Brown	Orange	Blue	Green	Colorless	Yellow	Orange	Yellow	Green
Green	Blue	Violet	Violet	Blue	Blue	Violet	Violet	Orange	Blue
Violet	Violet	Colorless	Colorless	Violet	Violet	Colorless	Colorless	Violet	Violet

  

Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
Colorless	Yellow	Red	Red	Red	Red	Yellow	Yellow	Colorless	Colorless
Yellow	Colorless	Yellow	Yellow	Yellow	Yellow	Red	Colorless	Yellow	Yellow
Red	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Red	Red
Orange	Red	Brown	Brown	Brown	Brown	Brown	Red	Orange	Orange
Brown	Brown	Green	Green	Green	Green	Green	Brown	Brown	Brown
Green	Green	Colorless	Colorless	Colorless	Colorless	Colorless	Green	Green	Green
Blue	Blue	Blue	Blue	Blue	Blue	Blue	Violet	Blue	Blue
Violet	Violet	Violet	Violet	Violet	Violet	Violet	Blue	Violet	Violet

Note : Ranked by decreasing occurrence in the Cambridge Crystallographic Database (Ver. 5.31, 2010; Allen, F. H. and R. Robin Taylor (2004). "Research applications of the Cambridge Structural Database (CSD)." *Chemical Society Reviews* **33**: 463-475). Colorless compounds may appear pale yellow under phosphorescence or incandescent lamps.

\*Crystal Color reported in the Cambridge Crystallographic Database. Only standard colors are listed only for single transition metal complexes.