

Important Metamorphic Minerals

For the following minerals memorize the formulas and know a common protolith.

Andalucite	Al_2SiO_5	orth	
Sillimanite	Al_2SiO_5	orth	
Kyanite	Al_2SiO_5	tricl	
Almandine (garnet)	$\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3$	iso	
Spessartine (garnet)	$\text{Mn}_3\text{Al}_2(\text{SiO}_4)_3$	iso	
Grossular (garnet)	$\text{Ca}_3\text{Al}_2(\text{SiO}_4)_3$	iso	
Andradite (garnet)	$\text{Ca}_3\text{Fe}_2(\text{SiO}_4)_3$	iso	
Biotite	$\text{K}(\text{Mg,Fe})_3(\text{Al,Fe})\text{Si}_3\text{O}_{10}(\text{OH})_2$	mono	
Muscovite	$\text{KAl}_2(\text{AlSi}_3)\text{O}_{10}(\text{OH})_2$	mono	
Albite	$\text{NaAlSi}_3\text{O}_8$	tricl	
Anorthite	$\text{CaAl}_2\text{Si}_2\text{O}_8$	tricl	
Cordierite	$\text{Mg}_2\text{Al}_4\text{Si}_5\text{O}_{18}$	orth	
Diopside	$\text{CaMgSi}_2\text{O}_6$	mon	
Jadeite	$\text{NaAlSi}_2\text{O}_6$	mon	
Wollastonite	$\text{Ca}_2\text{Si}_2\text{O}_6$	tricl	
Enstatite	$\text{Mg}_2\text{Si}_2\text{O}_6$	orth	
Hypersthene	$(\text{Mg,Fe})_2\text{Si}_2\text{O}_6$	orth	
Tremolite	$\text{Ca}_2(\text{Mg,Fe,Al})_5(\text{Si,Al})_8\text{O}_{22}(\text{OH})_2$	mono	
Actinolite	$\text{Ca}_2(\text{Mg,Fe,Al})_5(\text{Si,Al})_8\text{O}_{22}(\text{OH})_2$	mono	
Hornblende	$\text{Ca}_2(\text{Mg,Fe,Al})_5(\text{Si,Al})_8\text{O}_{22}(\text{OH})_2$	mono	

Forsterite	Mg_2SiO_4	orth
Fayalite	Fe_2SiO_4	orth
Brucite	$\text{Mg}(\text{OH})_2$	hex
Talc	$\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$	mon
Serpentine	$(\text{Mg,Fe})_6\text{Si}_4\text{O}_{10}(\text{OH})_8$	mon
Chlorite	$(\text{Mg,Fe})_6(\text{Al,Si})_4\text{O}_{10}(\text{OH})_8$	mon
Epidote	$\text{Ca}_2(\text{Al,Fe})_3\text{Si}_3\text{O}_{12}(\text{OH})$	mon
Zoisite	$\text{Ca}_2\text{Al}_3\text{Si}_3\text{O}_{12}(\text{OH})$	orth
Prehnite	$\text{Ca}_2\text{Al}_2\text{Si}_3\text{O}_{10}(\text{OH})_2$	orth
Titanite	CaTiSiO_5	mon
Calcite	CaCO_3	trig
Aragonite	CaCO_3	orth
Dolomite	$\text{CaMg}(\text{CO}_3)_2$	trig
Magnetite	Fe_3O_4	cub
Hematite	Fe_2O_3	trig
Ilmenite	FeTiO_3	trig
Corundum	Al_2O_3	trig
Periclase	MgO	cub