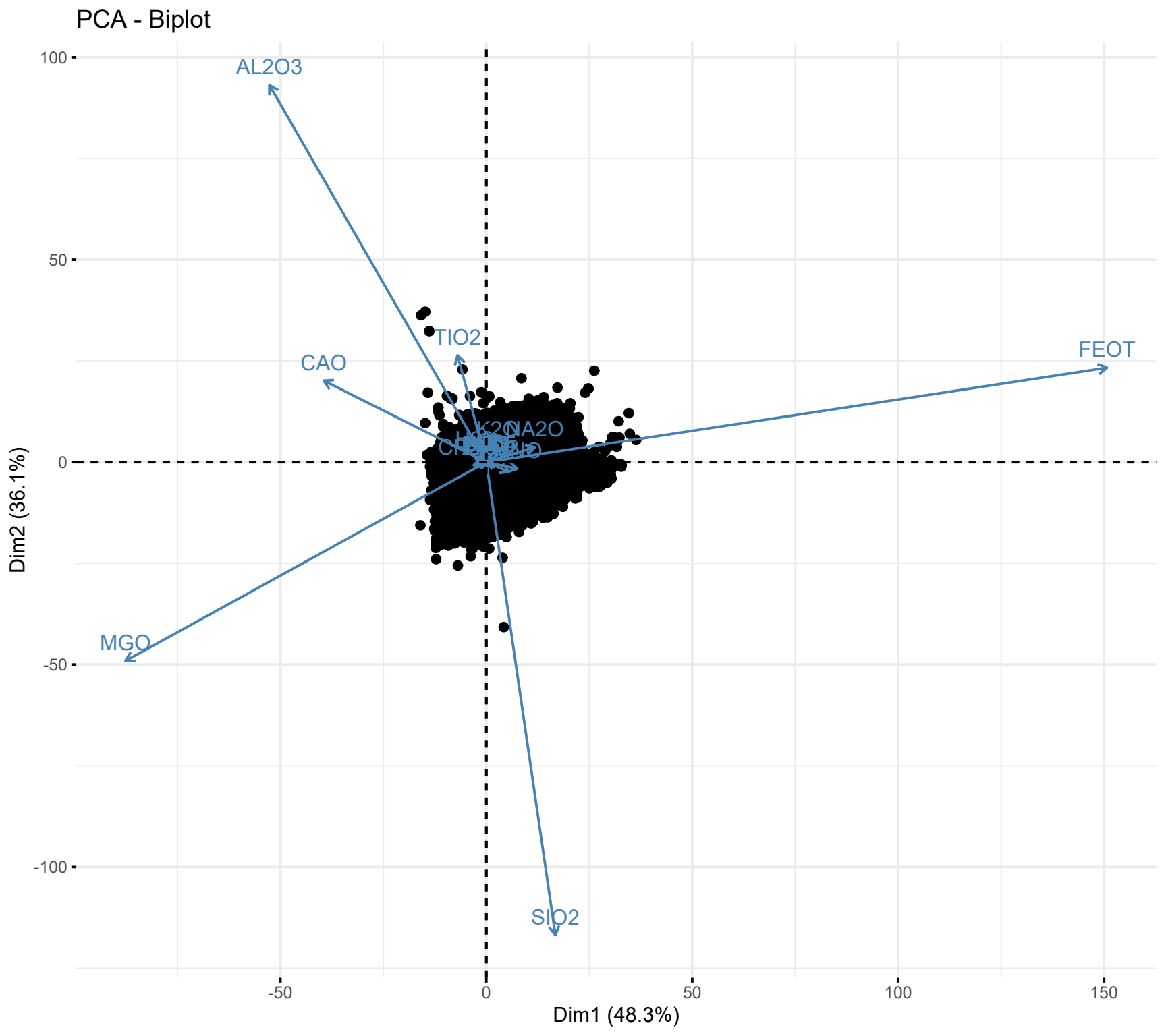
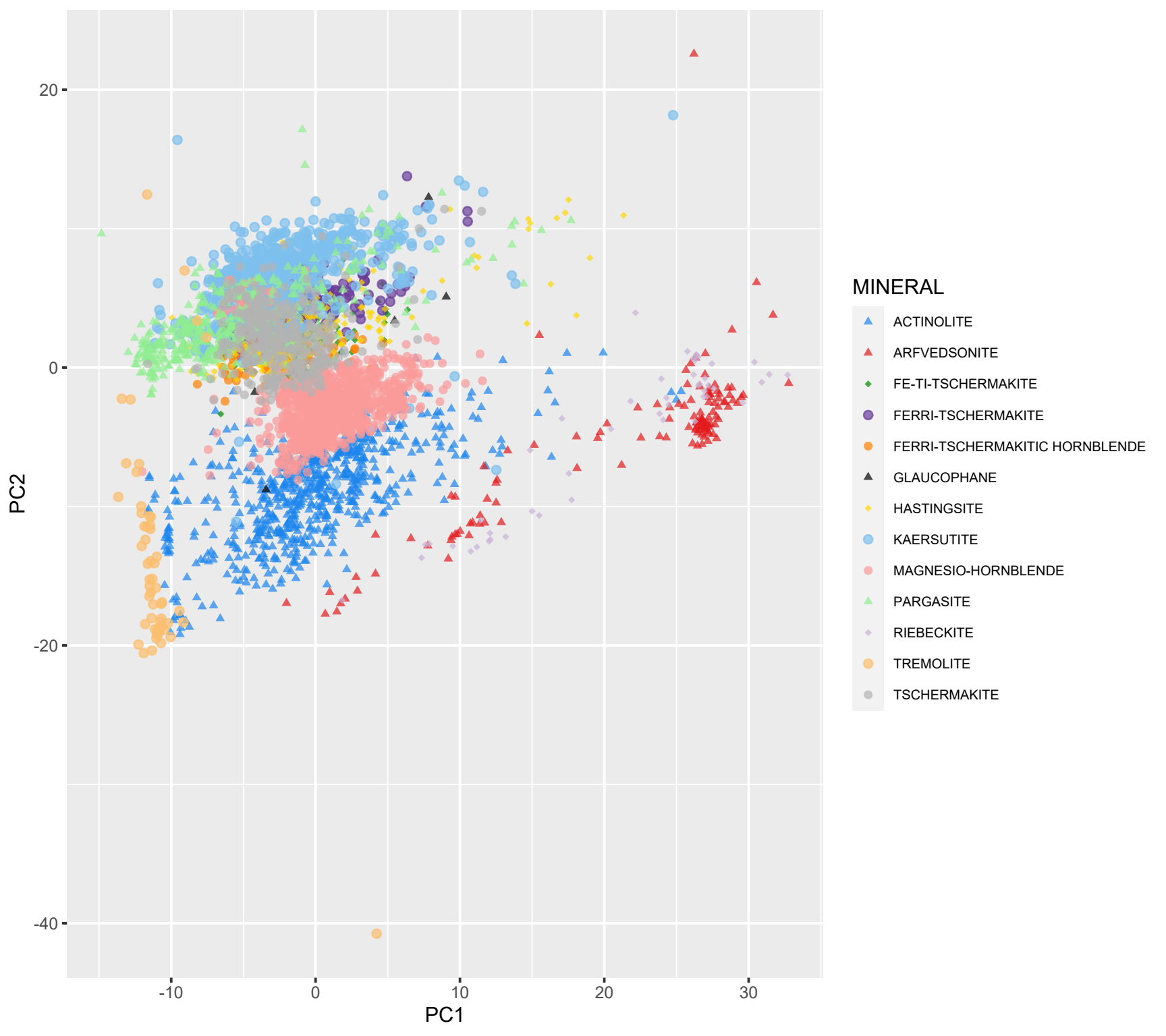
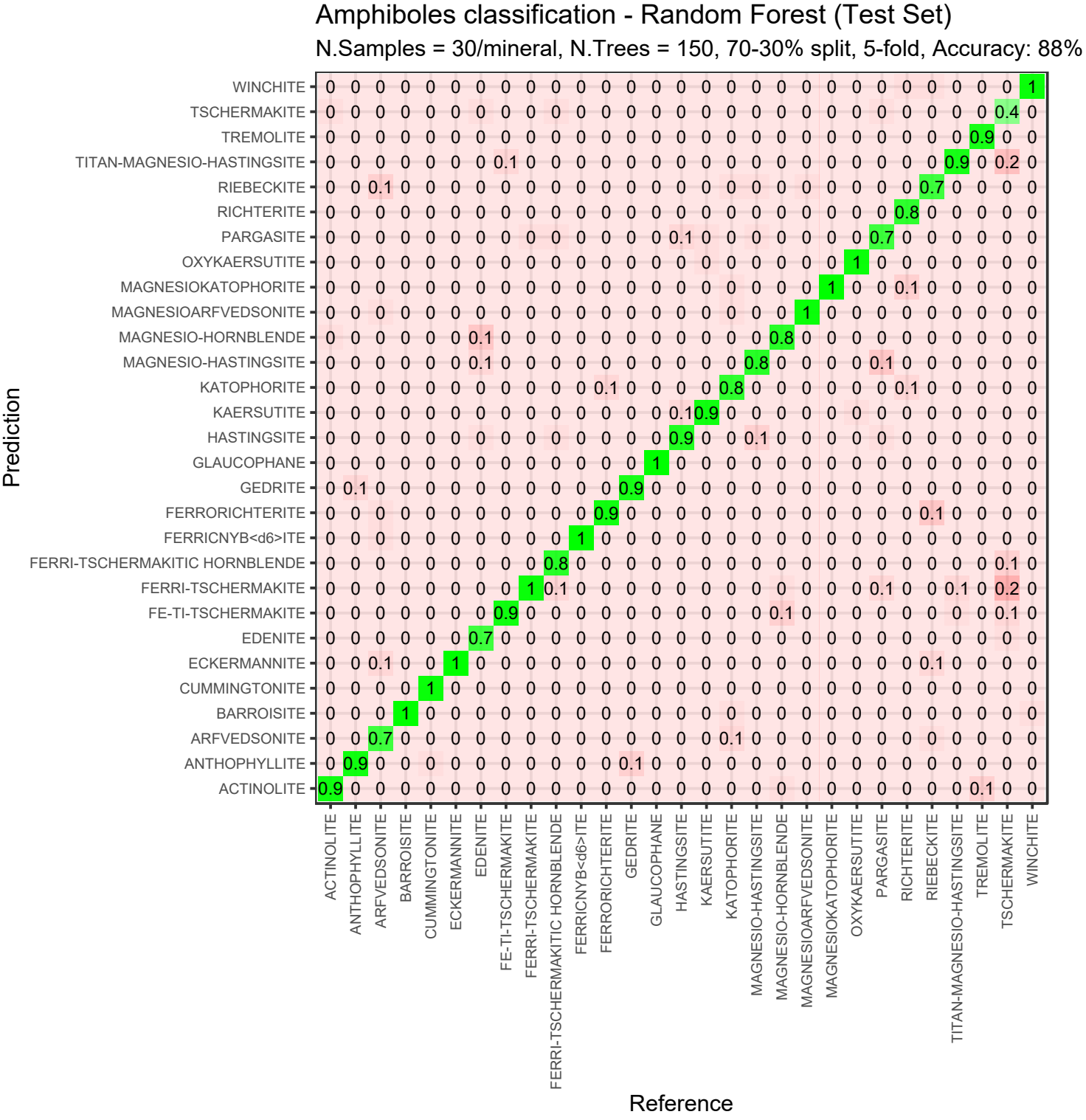

PCA - Biplot
AL2O3
TIO2
CAO
FEOT
K2O
NA2O
MGO
SIO2
100
50
0
-50
-100
-50
0
50
100
150
Dim2 (36.1%)
Dim1 (48.3%)


20
0
-20
-40
PC2
-10
0
10
20
30
PC1
MINERAL
ACTINOLITE
ARFVEDSONITE
FE-TI-TSCHERMAKITE
FERRI-TSCHERMAKITE
FERRI-TSCHERMAKITIC HORNBLENDE
GLAUCOPHANE
HASTINGSITE
KAERSUTITE
MAGNESIO-HORNBLENDE
PARGASITE
RIEBECKITE
TREMOLITE
TSCHERMAKITE


Amphiboles classification - Random Forest (Test Set)
N.Samples = 30/mineral, N.Trees = 150, 70-30% split, 5-fold, Accuracy: 88%
Prediction
Reference
WINCHITE
TSCHERMAKITE
TREMOLITE
TITAN-MAGNESIO-HASTINGSITE
RIEBECKITE
RICHTERITE
PARGASITE
OXYKAERSUTITE
MAGNESIOKATOPHORITE
MAGNESIOARFVEDSONITE
MAGNESIO-HORNBLENDE
MAGNESIO-HASTINGSITE
KATOPHORITE
KAERSUTITE
HASTINGSITE
GLAUCOPHANE
GEDRITE
FERRORICHTERITE
FERRICNYB<d6>ITE
FERRI-TSCHERMAKITIC HORNBLENDE
FERRI-TSCHERMAKITE
FE-TI-TSCHERMAKITE
EDENITE
ECKERMANNITE
CUMMINGTONITE
BARROISITE
ARFVEDSONITE
ANTHOPHYLLITE
ACTINOLITE