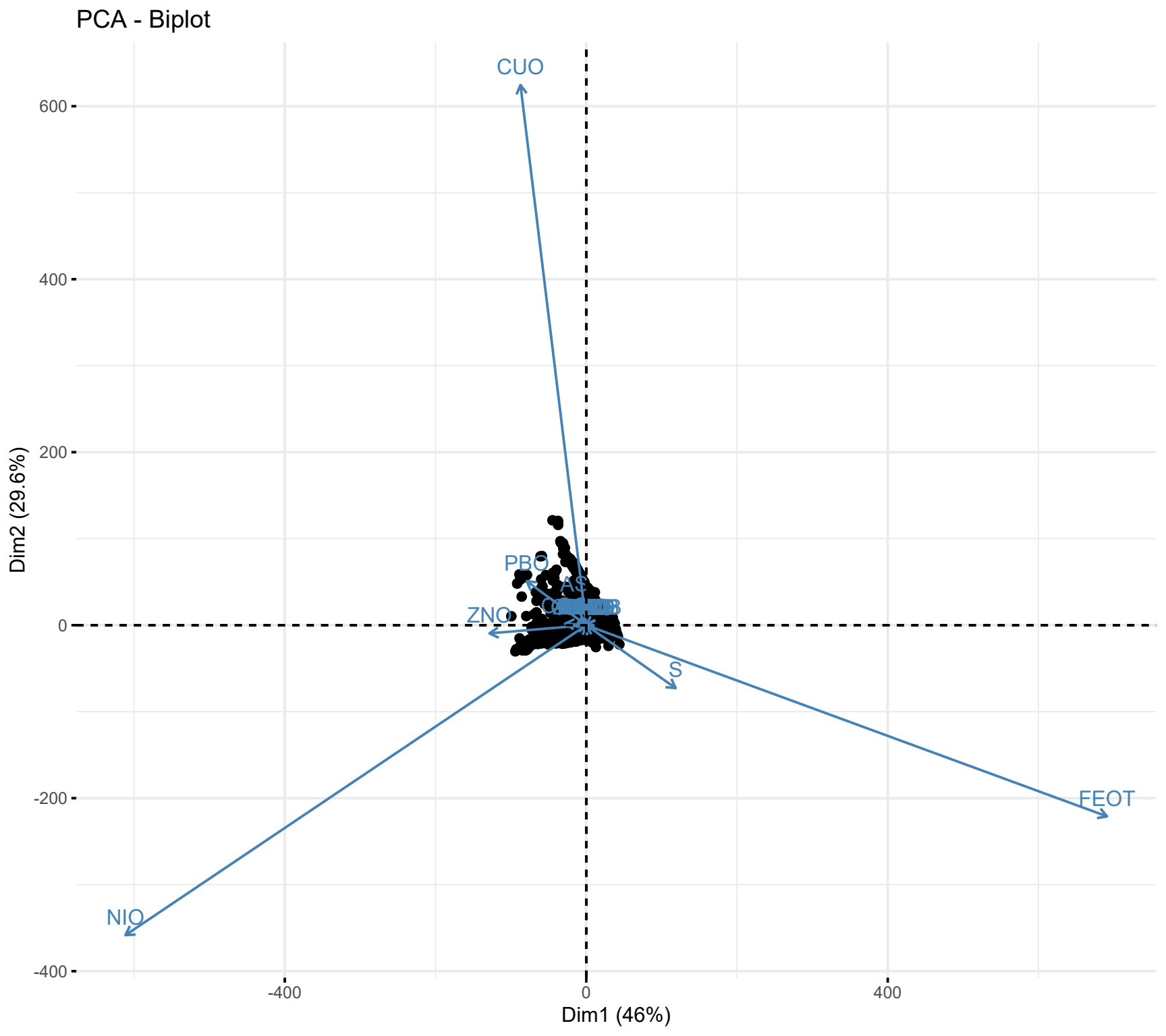
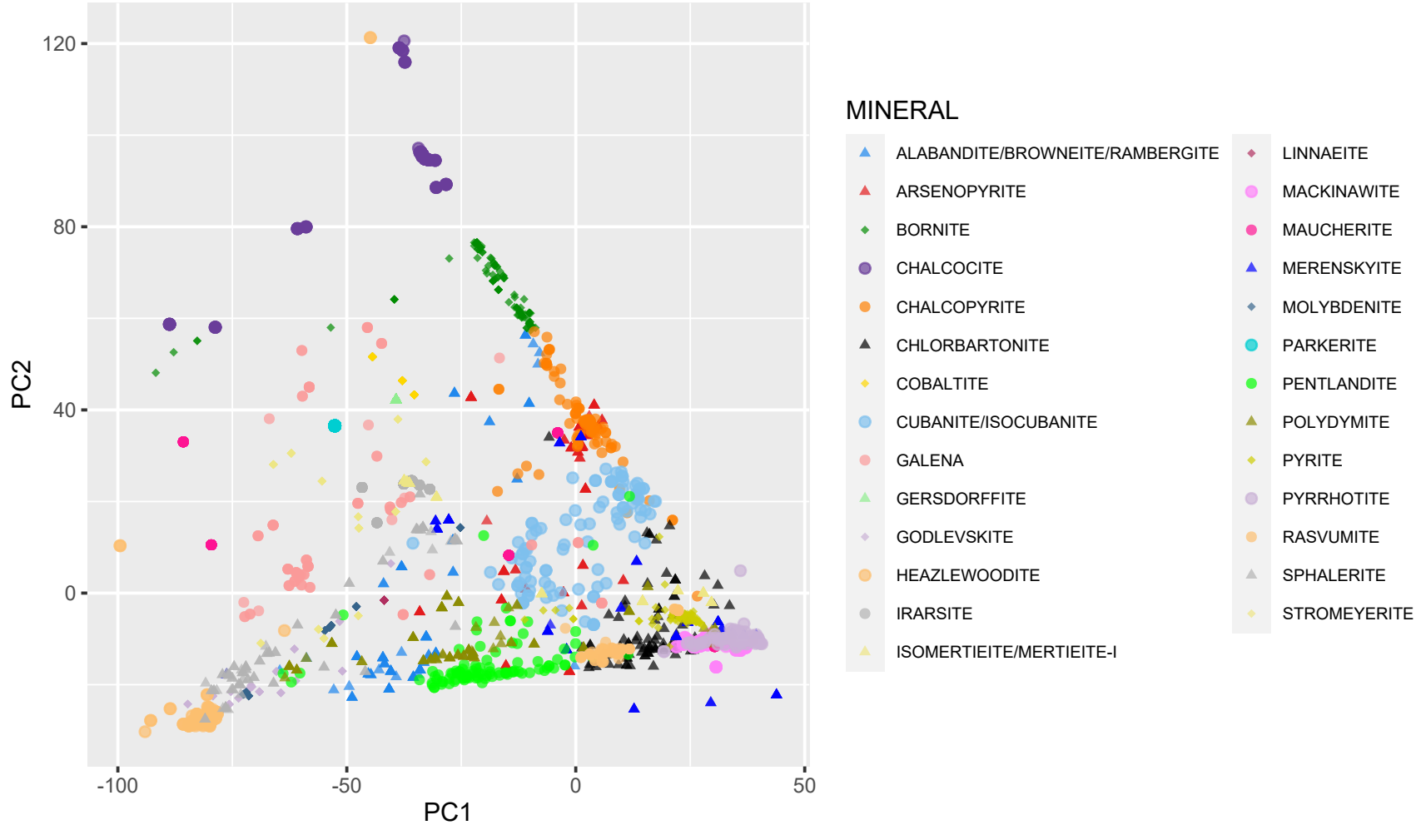
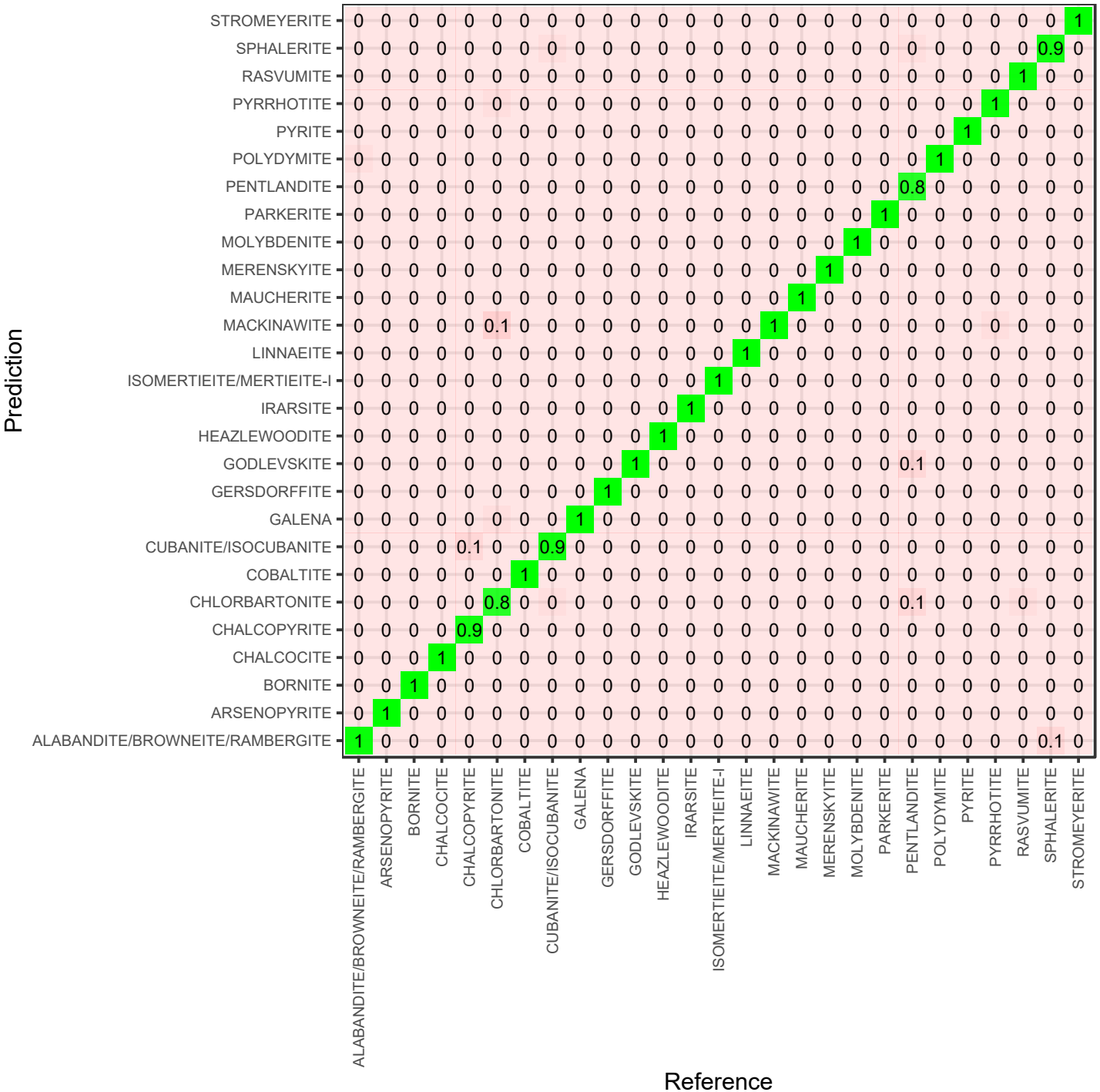

PCA - Biplot
CUO
PBO
AS
ZNO
S
FEOT
NIO
600
400
200
0
-200
-400
-400
0
400
Dim2 (29.6%)
Dim1 (46%)


120
80
40
0
PC2
-100
-50
0
50
PC1
MINERAL
ALABANDITE/BROWNEITE/RAMBERGITE
ARSENOPYRITE
BORNITE
CHALCOCITE
CHALCOPYRITE
CHLORBARTONITE
COBALTITE
CUBANITE/ISOCUBANITE
GALENA
GERSDORFFITE
GODLEVSKITE
HEAZLEWOODITE
IRARSITE
ISOMERTIEITE/MERTIEITE-I
LINNAEITE
MACKINAWITE
MAUCHERITE
MERENSKYITE
MOLYBDENITE
PARKERITE
PENTLANDITE
POLYDYMITE
PYRITE
PYRRHOTITE
RASVUMITE
SPHALERITE
STROMEYERITE


Sulfides classification - Random Forest (Test Set)
N.Samples = 30 for each mineral, N.Trees = 150, 70-30% split, 5-fold, Accuracy: 98
Prediction
Reference
STROMEYERITE
SPHALERITE
RASVUMITE
PYRRHOTITE
PYRITE
POLYDYMITE
PENTLANDITE
PARKERITE
MOLYBDENITE
MERENSKYITE
MAUCHERITE
MACKINAWITE
LINNAEITE
ISOMERTIEITE/MERTIEITE-I
IRARSITE
HEAZLEWOODITE
GODLEVSKITE
GERSDORFFITE
GALENA
CUBANITE/ISOCUBANITE
COBALTITE
CHLORBARTONITE
CHALCOPYRITE
CHALCOCITE
BORNITE
ARSENOPYRITE
ALABANDITE/BROWNEITE/RAMBERGITE