List of the composition of standards used in electron microprobe analyses:

**Hakone Anorthite**

Si = 20.57 % Al = 18.98 % Ca = 13.71 % Na = 0.44 %

Fe = 0.38 % O = 46.08. %

Total = 100.21 %

**Chromite - USNM 117075**

Cr = 41.39 % Fe = 10.14 % Mg = 9.17 % Al = 5.25 %

Mn = 0.09 % Ca = 0.09 % O = 33.00 %

Total = 99.13 %

**Rockport Fayalite**

Fe = 52.24 % Si = 13.84 % Mn = 1.55 % Zn = 0.38 %

Ca = 0.21 % Mg = 0.06 % Al = 0.05 % Ti = 0.01 %

O = 31.54 %

Total = 99.79 %

**Orthoclase OR-1**

Si = 30.10 % K = 12.39 % Al = 9.83 % Ba = 0.73 %

Na = 0.08 % Sr = 0.03 % Rb = 0.03 % Fe = 0.02 % H = 0.01 % O = 46.04 %

Total = 99.98 %

**San Carlos Olivine**

Mg = 30.33 % Si = 19.13 % Fe = 6.36 % Ni = 0.32 %

Mn = 0.09 % Ca = 0.07 % Al = 0.02 % O = 43.74 %

Total = 100.06 %

**Rhodonite 104791**

Mn = 36.14 % Si = 21.66 % Ca = 2.69 % Fe = 2.10 %

Al = 0.02 % Ti = 0.01 % Mg = 0.58 % O = 37.28 %

Total = 100.48 %

**Crete Albite**

Si = 31.96 % Al = 10.39 % Na = 8.77 % K = 0.02 %

Fe = 0.01 % O = 48.72 %

Total = 99.88 %

**Synthetic fluorapatite**

Ca = 39.74 % P = 18.43 % F = 3.77 % O =38.07 %

Total = 100.01 %

**Natural Rutile (Ti)**

Ti = 59.93 % O = 40.06 %

Total = 99.99 %