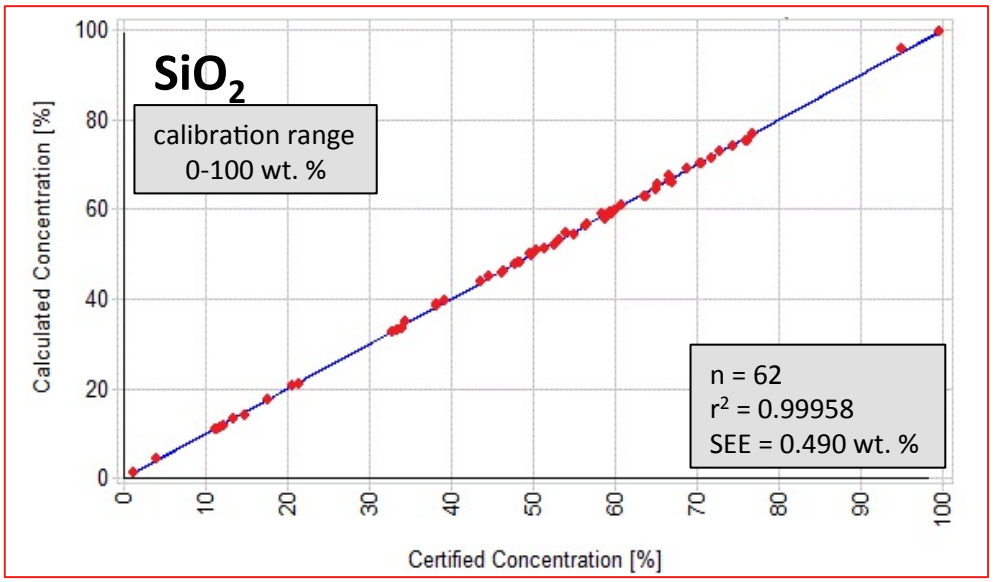
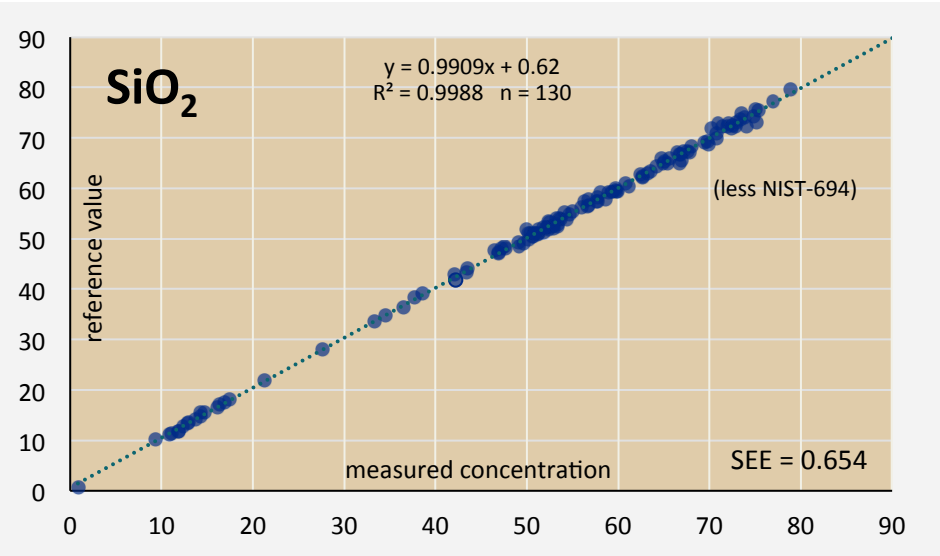
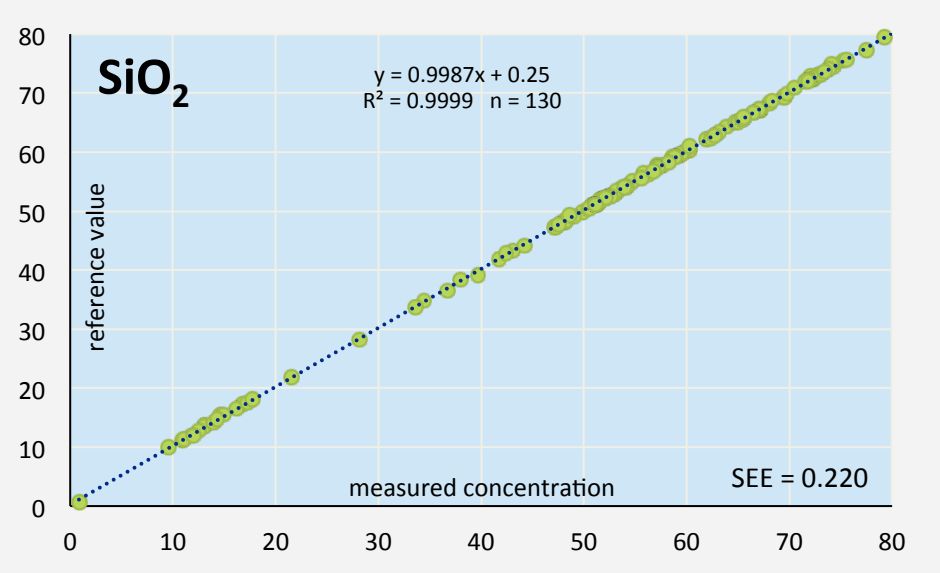
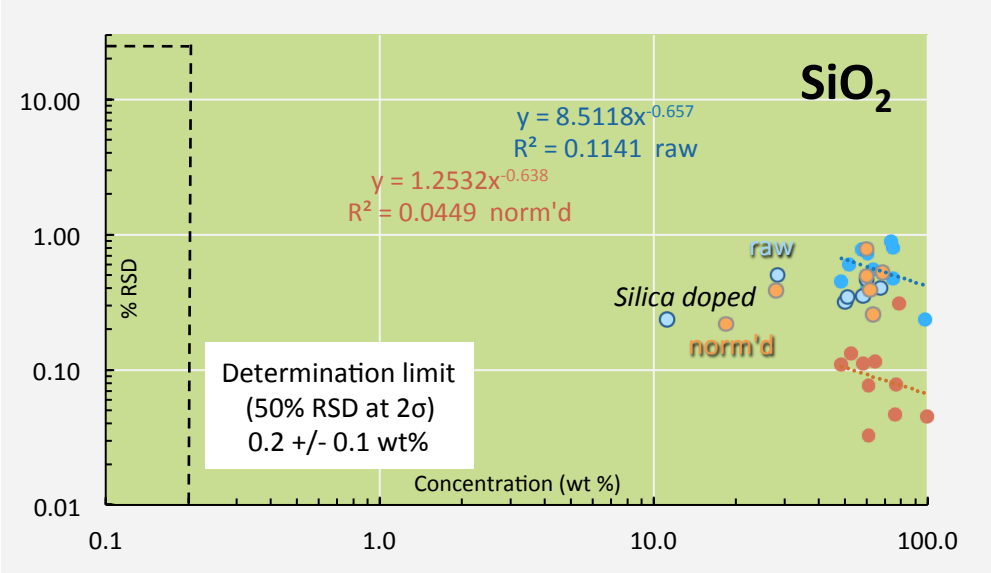
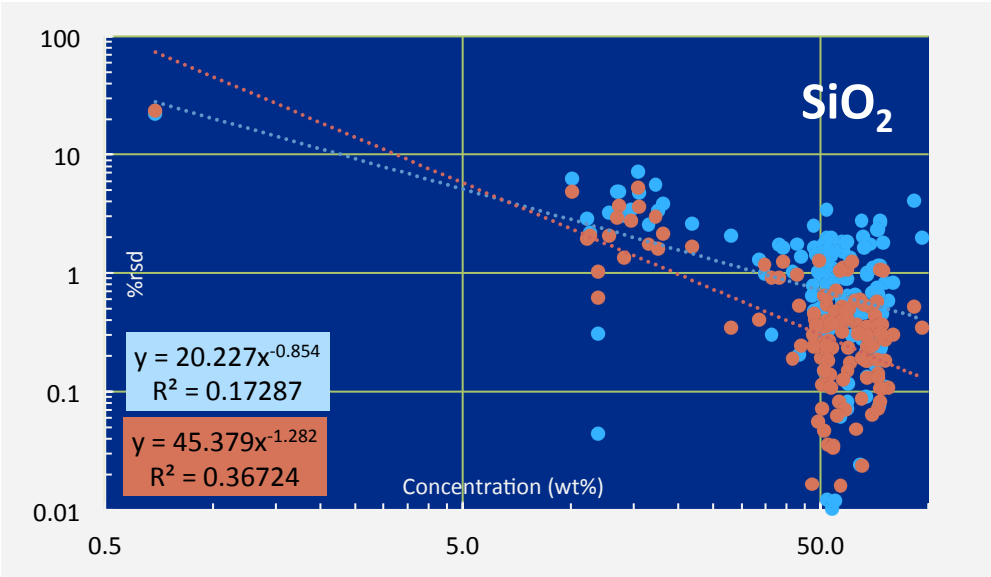
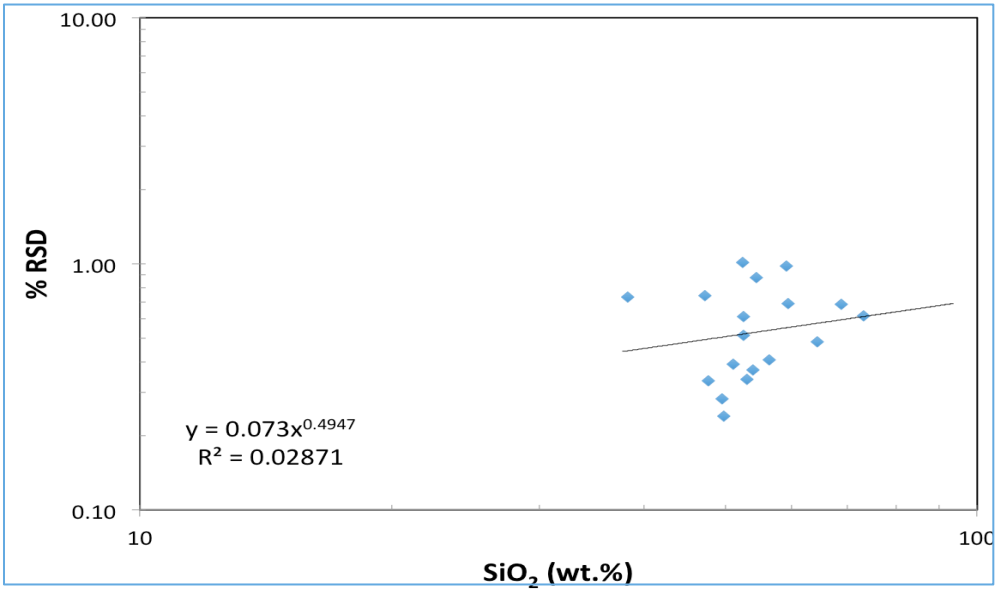

SiO2
calibration range
0-100 wt. %
n = 62
r² = 0.99958
SEE = 0.490 wt. %
Calculated Concentration [%]
Certified Concentration [%]
0
20
40
60
80
100
0
10
20
30
40
50
60
70
80
90
100


SiO2
y = 0.9909x + 0.62
R² = 0.9988 n = 130
(less NIST-694)
reference value
measured concentration
SEE = 0.654
0
10
20
30
40
50
60
70
80
90


SiO2
y = 0.9987x + 0.25
R² = 0.9999 n = 130
reference value
measured concentration
SEE = 0.220
0
10
20
30
40
50
60
70
80


SiO2
y = 8.5118x-0.657
R² = 0.1141 raw
y = 1.2532x-0.638
R² = 0.0449 norm'd
raw
Silica doped
norm'd
Determination limit
(50% RSD at 2σ)
0.2 +/- 0.1 wt%
% RSD
Concentration (wt %)
10.00
1.00
0.10
0.01
0.1
1.0
10.0
100.0


SiO2
y = 20.227x-0.854
R² = 0.17287
y = 45.379x-1.282
R² = 0.36724
%rsd
Concentration (wt%)
100
10
1
0.1
0.01
0.5
5.0
50.0


y = 0.073x0.4947
R² = 0.02871
% RSD
SiO2 (wt.%)
10.00
1.00
0.10
10
100