University of Arizona
CAMECA SX100

Setup Calibration Conditions


Page 14  Setup Calibration Acquisition: Point Locations.

Page 26  Run the Calibrations.
Step 1
If Necessary - Open the Settings Window.

Press This Button
Step 2
In the Settings Window - Select the Calibration Setup Icon

Press This Button
Step 3a
Select an Element to Calibrate on the Spectrometer you intend to use for that Element.

For Example: For Silicon Kα on TAP on Spectrometer 1:

Press This Button
Step 3b
Select the Element you want from the Periodic Table

then

Press This Button
Step 3c
Select the x-ray line you want for that Element.

Note: Be sure that the line you select is on the crystal that is currently in position.
Step 4
Select the Peak Count Time.

Select the Peak Count Time
Step 5
Select the 1\textsuperscript{st} Background Position.
Step 6
Select the 2nd Background Position.

Select the 2nd Background Position
Step 7a
Select the Standard you will use for this Calibration.

Press This Button
Step 7b

Select the Standard then Press This Button
Step 8
Save the Calibration Setup

Press This Button
Step 9

Repeat Steps 3 – 9 for each element you plan to calibrate.

Note: If desired, it is possible to calibrate more than one element on a single standard/calibration setup.

Then

Step 10

Go to: Set Up Calibration Acquisition Instructions (see below p. 14).
University of Arizona
CAMECA SX100

Set Up the Calibration Acquisition
Step 1
If Necessary - Open the Acquisition Window.

Press This Button
Step 2
In the Acquisition Window - Select the Calibration Setup Icon.
Step 3
Select the Analysis Setup Icon.

then

Select a Calibration
Step 4
Determine the location for first point for the Calibration on the Standard.

A. Focus optically on the standard using either the Z wheel or the autofocus button.
B. Turn on the SEM Screen.

i). Turn the Scan Button ON.

ii). Click the Mag Button.

iii). Double Click on “Maxi” (Minimum Magnification).

iv). Click the Cup OFF button.
C. Find a clean spot to set the first Calibration Point

i). If available, move to a place that hasn’t been used before.

Before Move

After Move

ii). Go to High Magnification. (Double click on 66um).

iii). Find a spot free of dust, cracks holes, etc.
D. Set the starting point using the “U” button.

Press This Button

Note: This step is important. Don’t forget to do this.
Step 5
Delete the three points that appear in the Acquisition window.

Press This Button 3 Times
Step 6
Set the next Calibration Point

Move to a spot approximately 5 um away from your current location. Watch the SEM and Optical screens in order to avoid dust, holes, rounded edges, etc.

then

Press This Button

(Note: You can also use the button to the left of the joystick control to set points).
Step 7  
Set up all the Calibration Points for this Standard and Save the Calibration Acquisition.

A) Set up 7 to 10 calibration points for this calibration by repeating Step 6 for each point.

B) Save the Calibration Acquisition.

Press This Button
Step 8
Put the Cup ON

Step 9
Set up all the other Calibration Acquisitions you plan to do by repeating Steps 3 to 8 for each one.

Then

Step 10
Go to: Run the Calibrations (see below p. 26)
University of Arizona
CAMECA SX100

Run the Calibrations
Step 1
Open the Chain Acquisition window.

Press This Button
Step 2
In the Chain Task Window- Select the Calibration Icon.

Press This Button

Step 3
Double click “Date Modified” in the pop-up window.
Step 4
Select the Calibration Acquisitions you want to run.

Step 5
Run the Calibration Acquisitions.
Then

Press This Button

Step 6
Wait until the Calibrations have been Acquired.

Then

Step 7
Go to the document: Calling and Updating Analysis Files