Shaker Mill Thermistor: Standard Operating Procedure

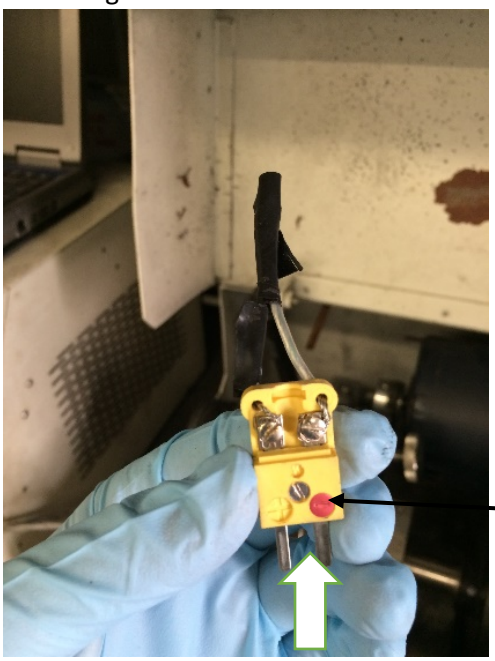
Description:

The thermistor is used to monitor the change of temperature during the milling process. It translates the temperature signal into voltage: lower voltages indicate a higher temperature. The thermistor used is CP-K12 made by CP-nine.

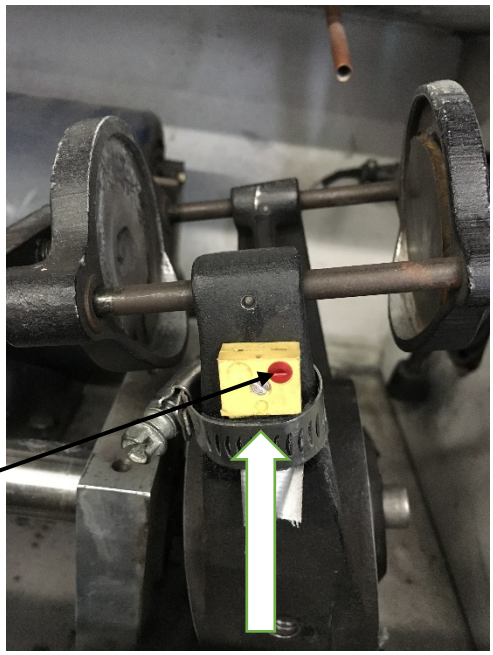
Time vs Temperature data are generated.

Before milling:

a. Load the vials in the shaker mill following its SOP. Recover thermistor from Ani's drawer in Lab 221. Plug the thermistor into its holder. Make sure red dots coincide with each other.

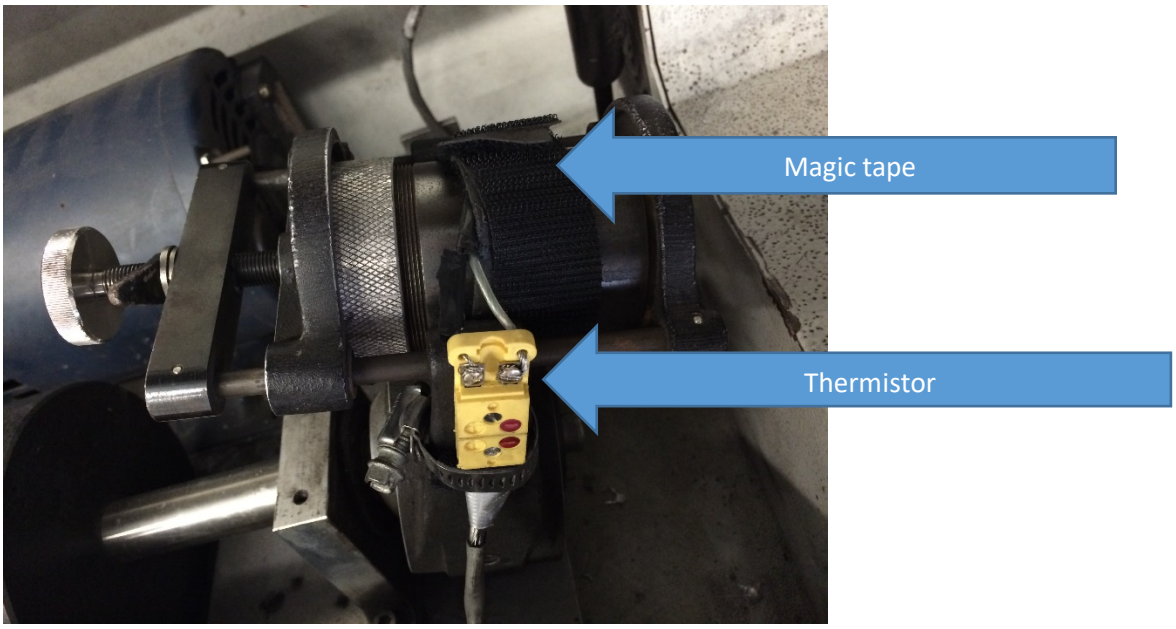


Thermistor



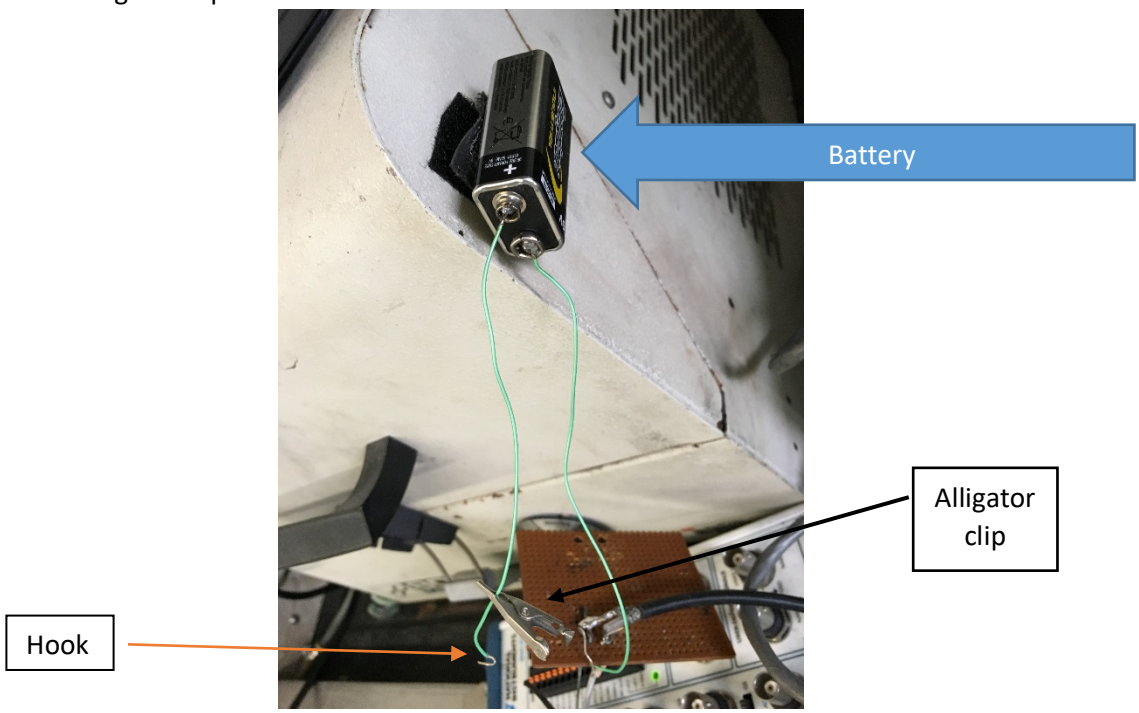
holder fixed by clamp

b. Use the magic (Velcro) tape to firmly attach the thermistor onto the vial. Make sure the tip is in contact with the surface of the vial.



c. Close the cover of the shaker mill.

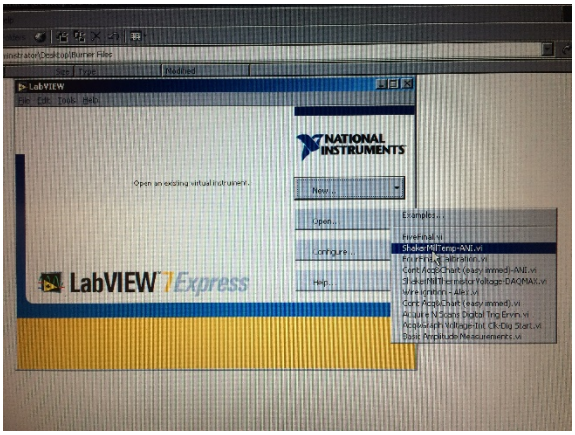
d. Connect the thermistor's cable to a battery by hooking up the wire. Secure the wire with an alligator clip.

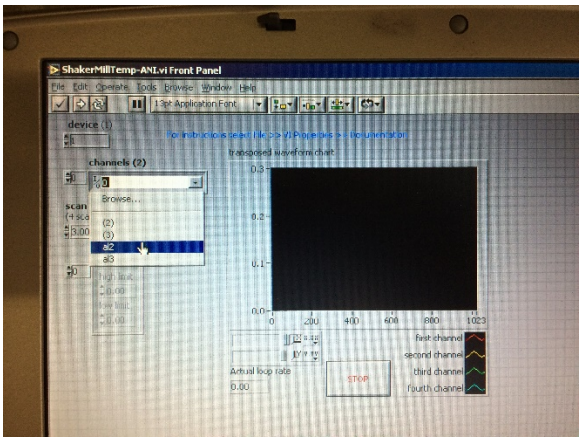


e. The data are saved using a virtual instrument (VI) working with LabView Express installed in the Dell laptop located in Lab 221.

f. Go to "Burner Files" on the desktop, then open "Fivefinal.vi".

g. Left click "Open" then open "shakerMillTemp-ANI.vi". Select channel "al2".





h. Press the start button of the program and start the shaker mill at the same time.

After milling:

a. Left click “STOP” button to stop the data acquisition and save file.
b. Disconnect the battery.
c. Take off the magic tape and unplug the thermistor. Return the thermistor to its original location (Ani’s Drawer).