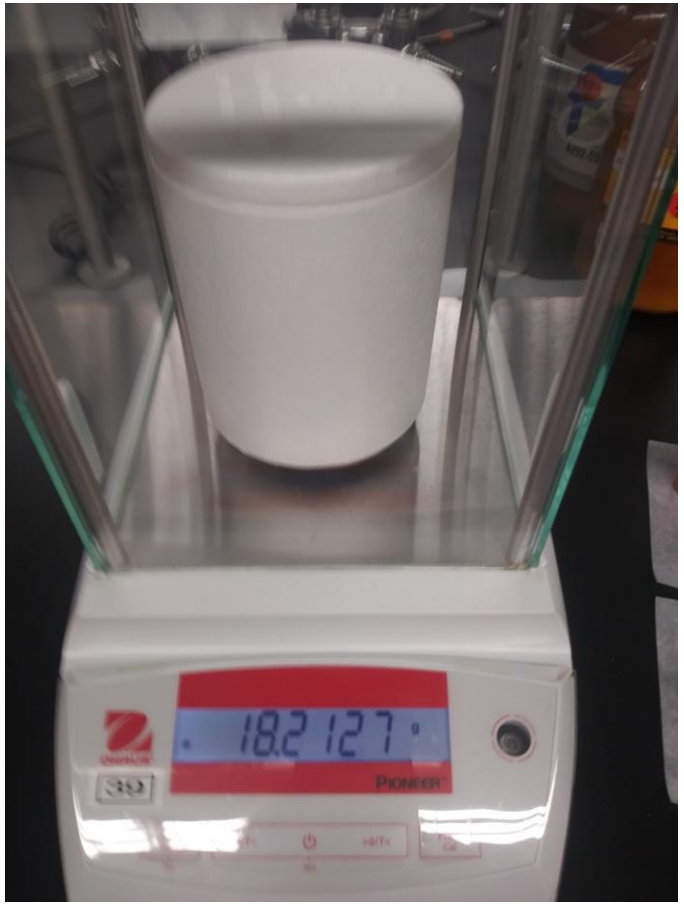
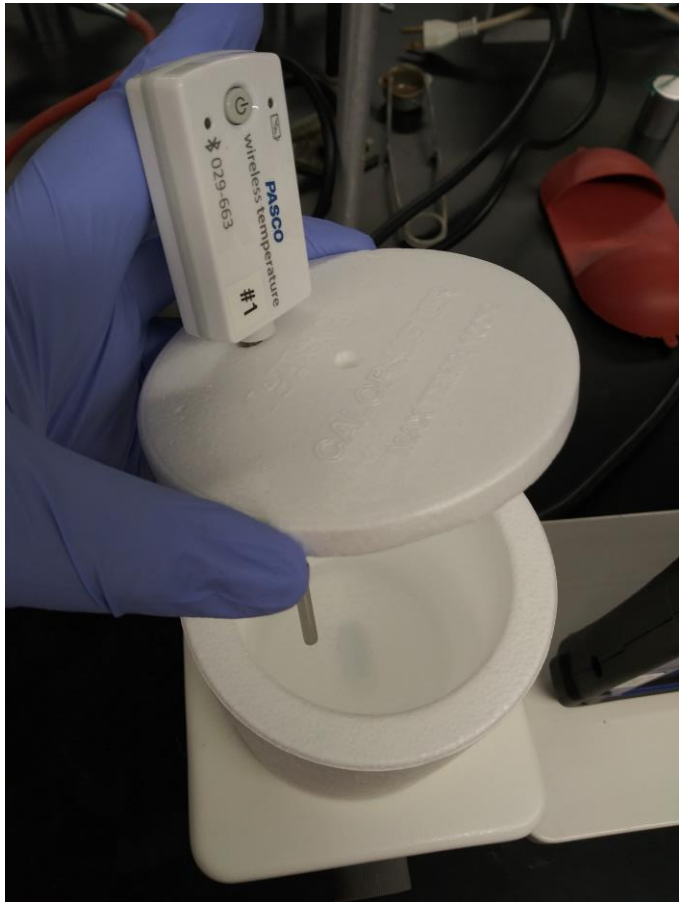
Laboratory No 3: **Finding the heat capacity of metals and the enthalpy of an acid-base reaction**

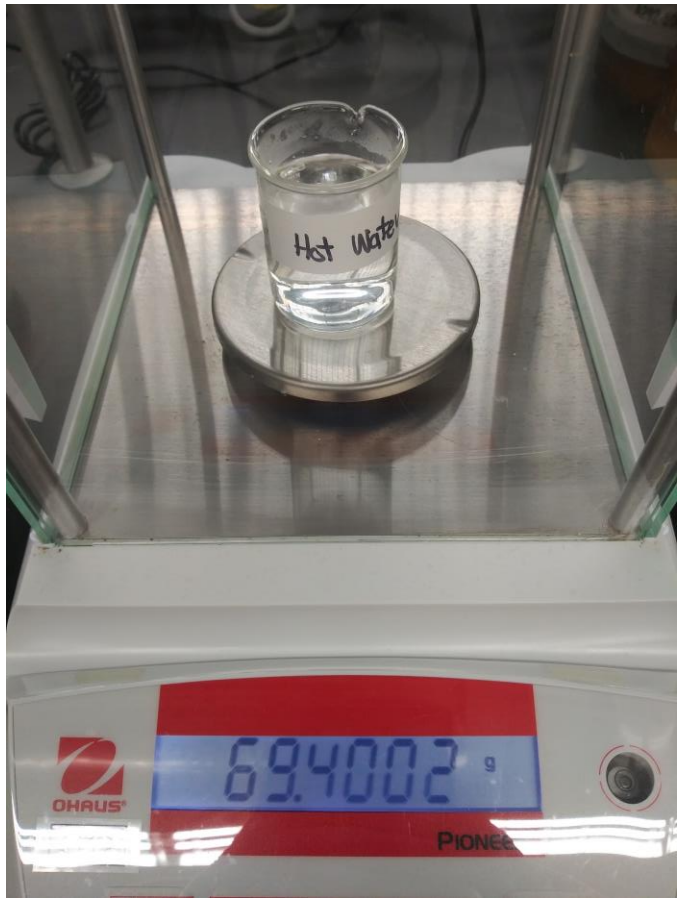
Experiment

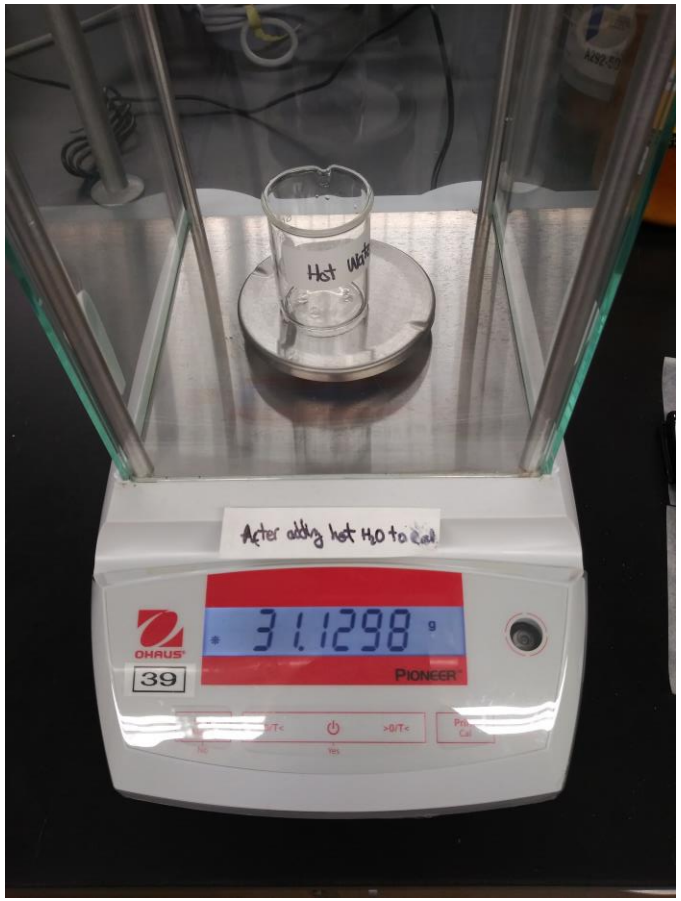
Calorimeter's Heat capacity:

Numeral 3.









Video in 2D:

https://youtu.be/YktzfNUYgoA

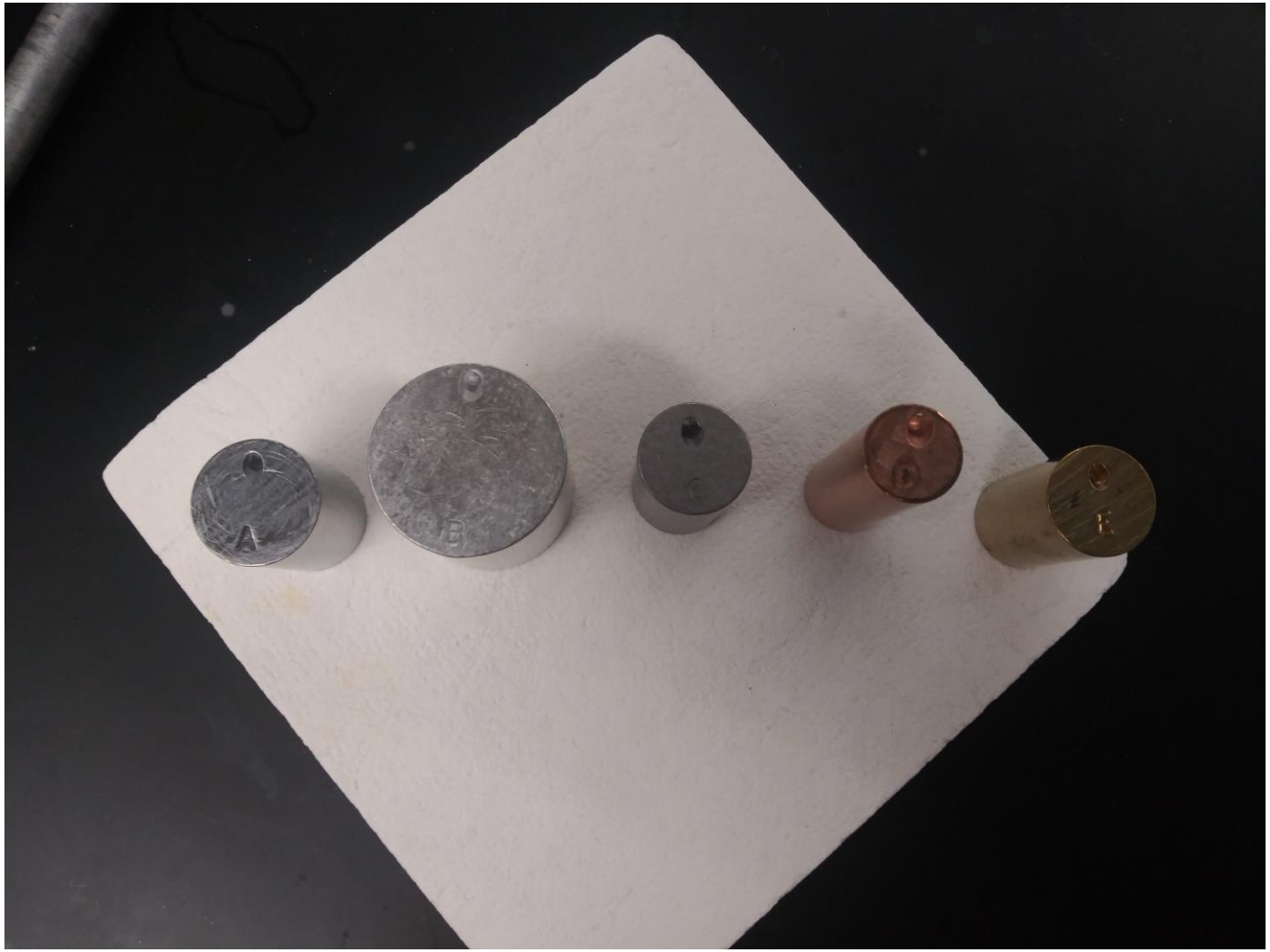
Video in 360:

Experimental Data:

File name → LabNo3 _TempVsTime_Data.xlxs follow this link and download the file to your computer. The data for this experimental section is in the excel file sheet labeled **HCCal**.

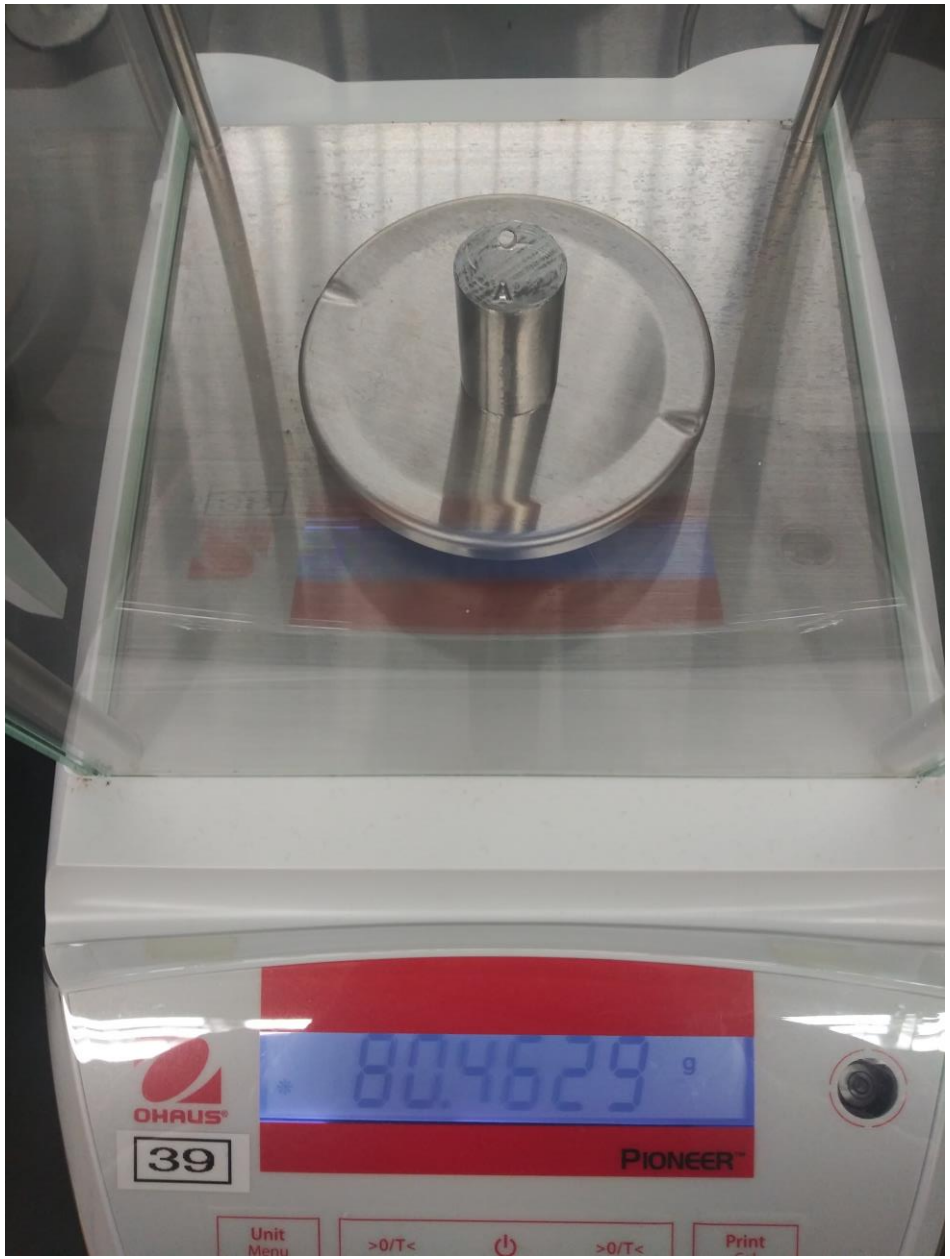
Metals' heat capacity:

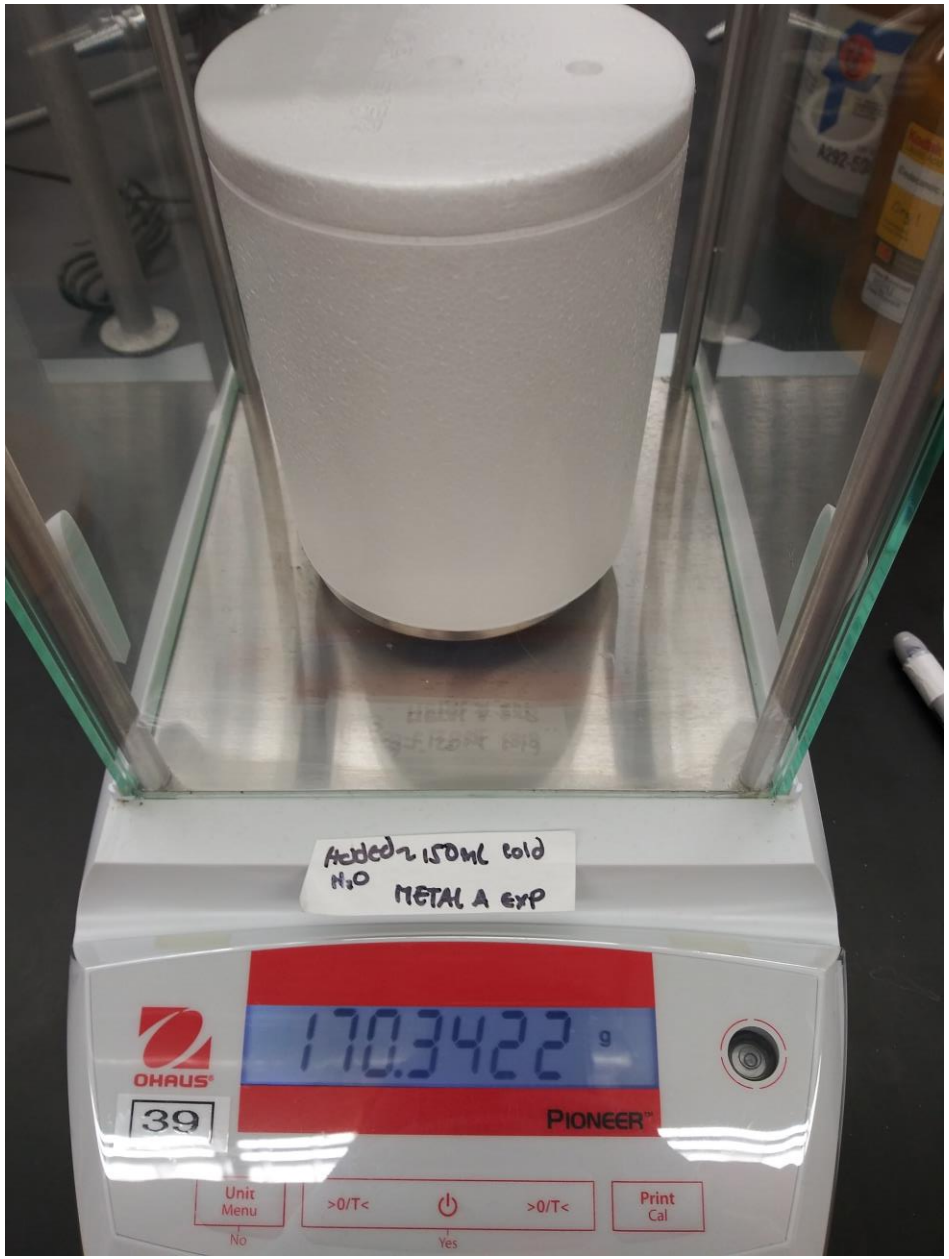
Group No1	Group No2	Group No3	Group No4	Group No5
Metal A	Metal B	Metal C	Metal D	Metal E



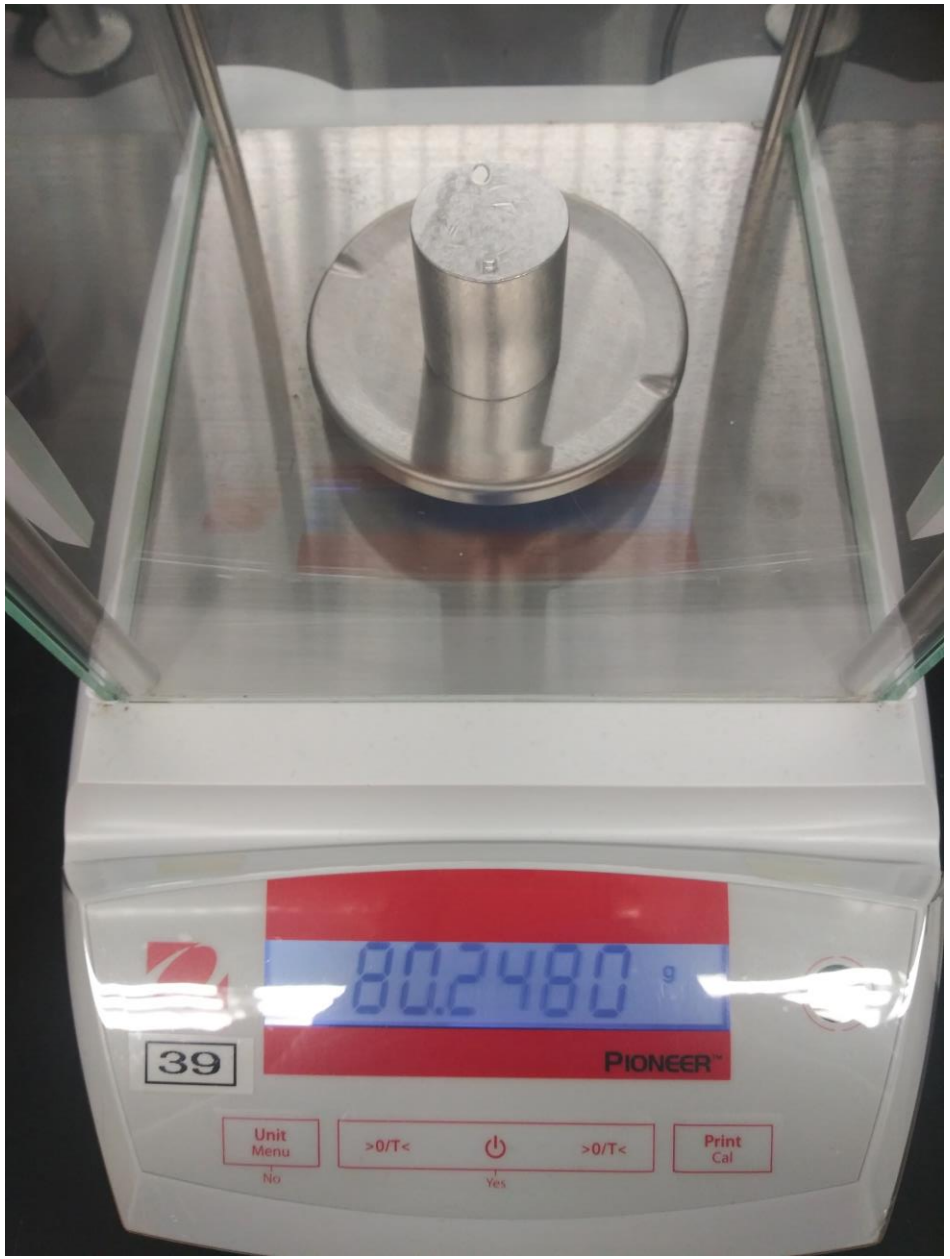
Numeral 7.

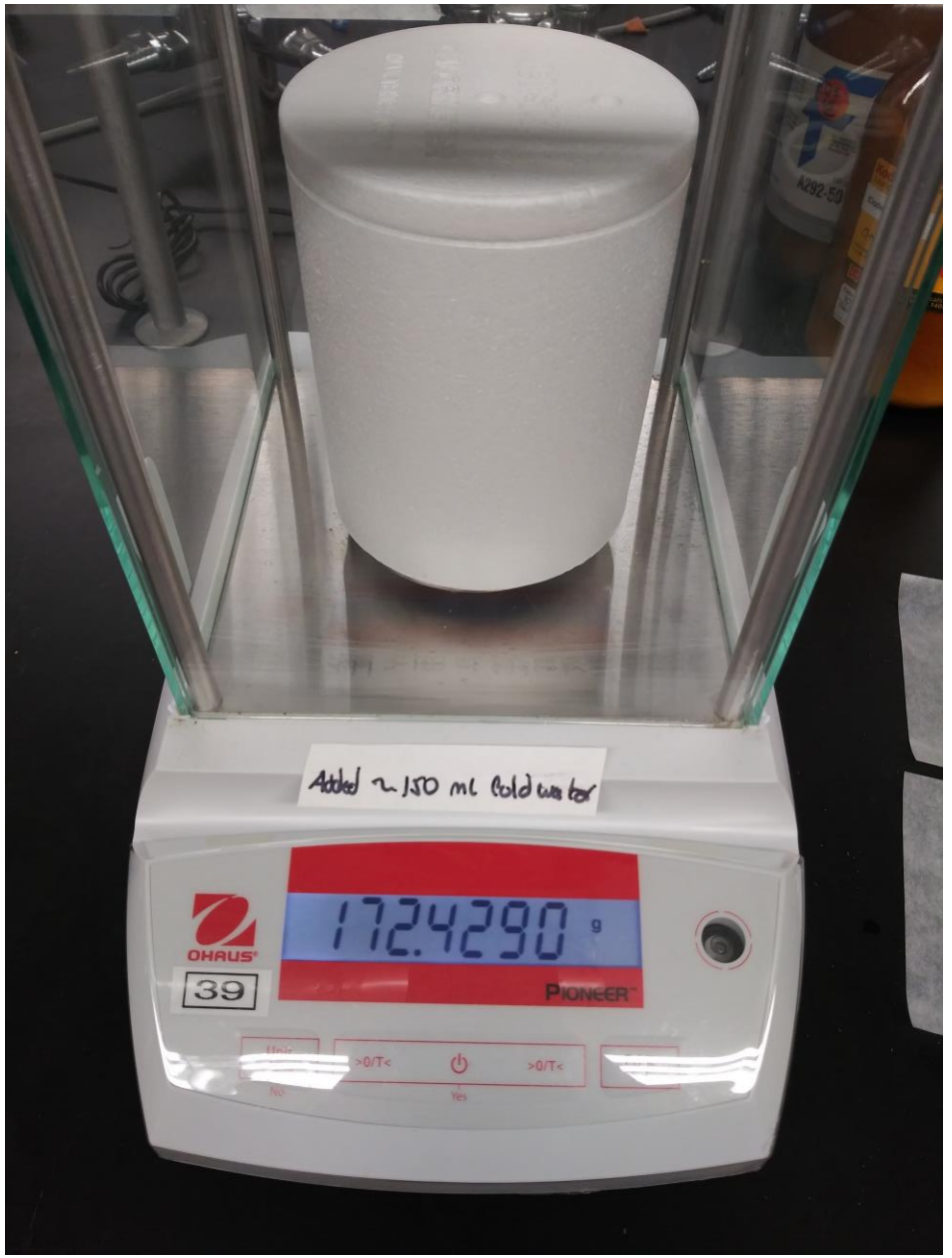
Metal A



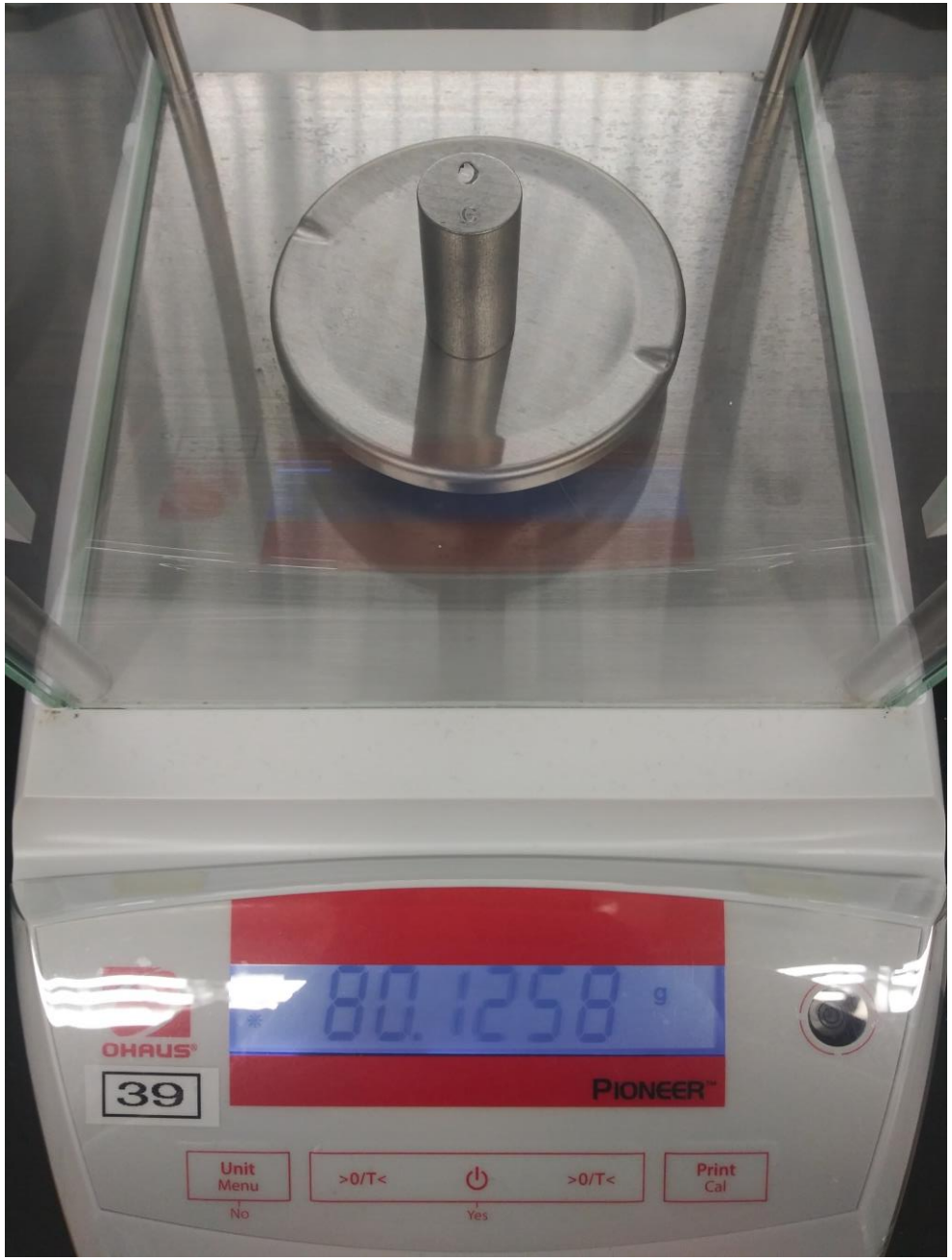


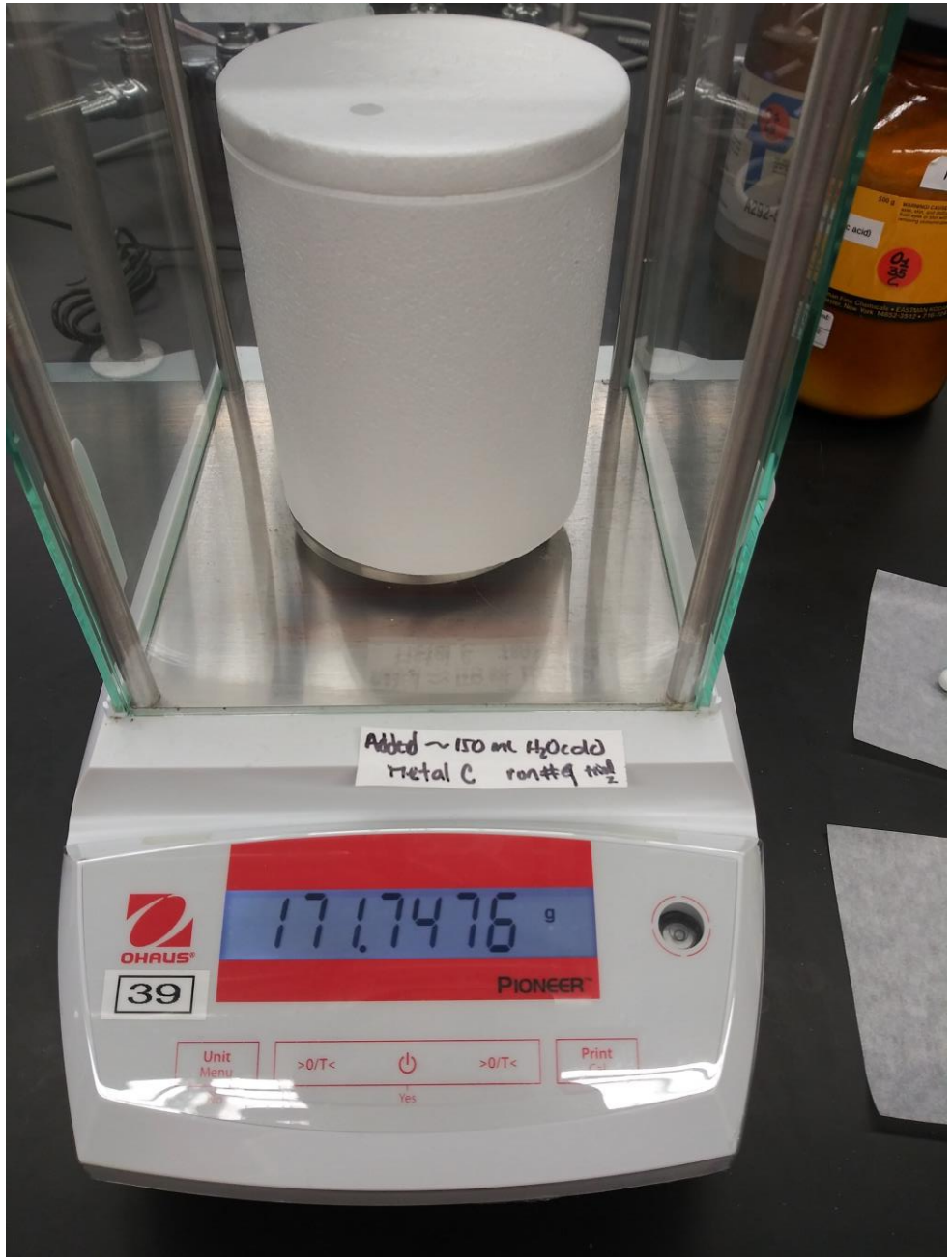
Metal B


80.2480 g
39
PIONEER
Unit Menu
No
>0/T<
Yes
>0/T<
Print Cal

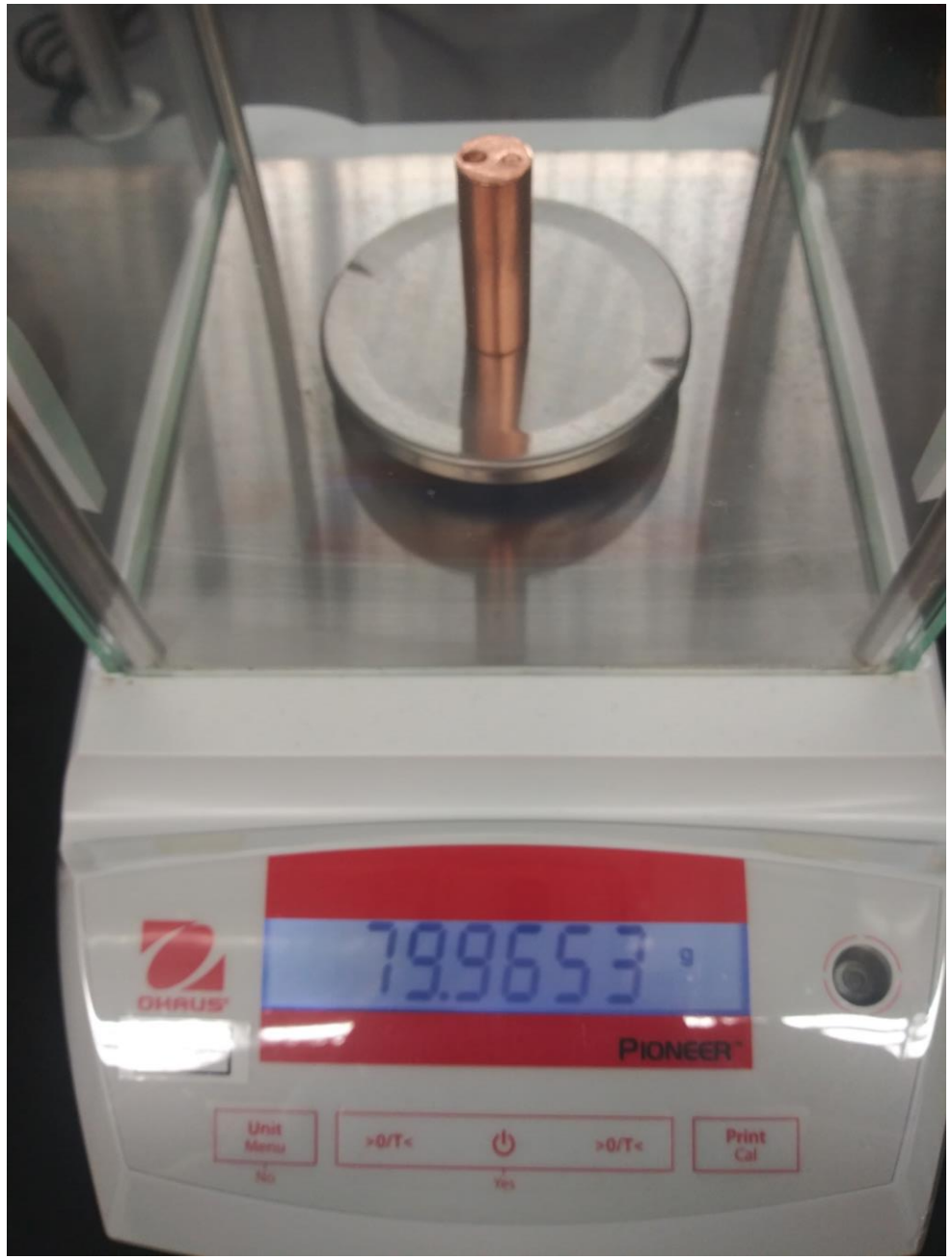

Added ~150 ml cold water
172.4290 g
OHAUS
39
PIONEER

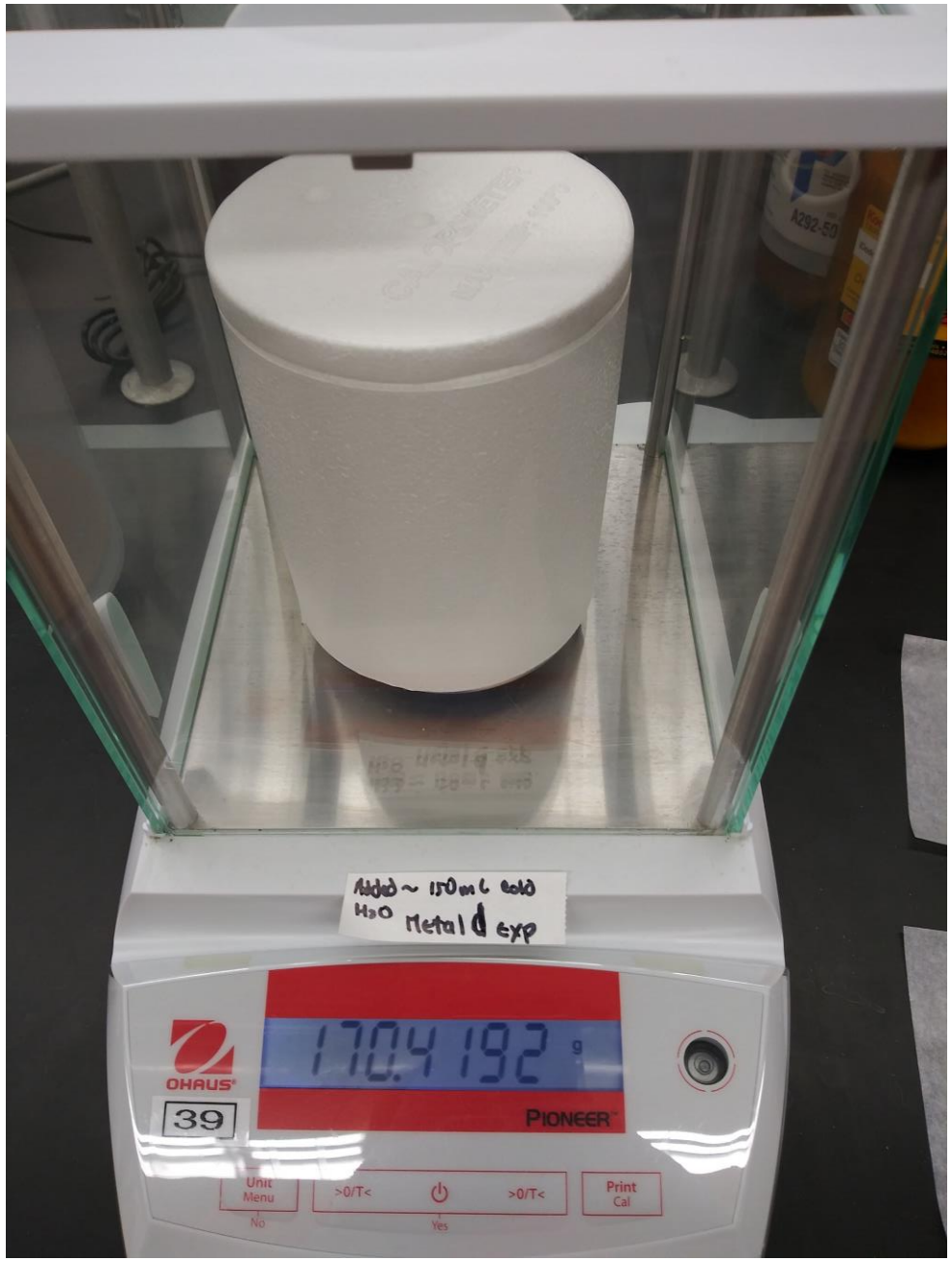
Metal C


80.1258 g
OHAUS
39
PIONEER
Unit Menu
No
>0/T<
Yes
>0/T<
Print Cal

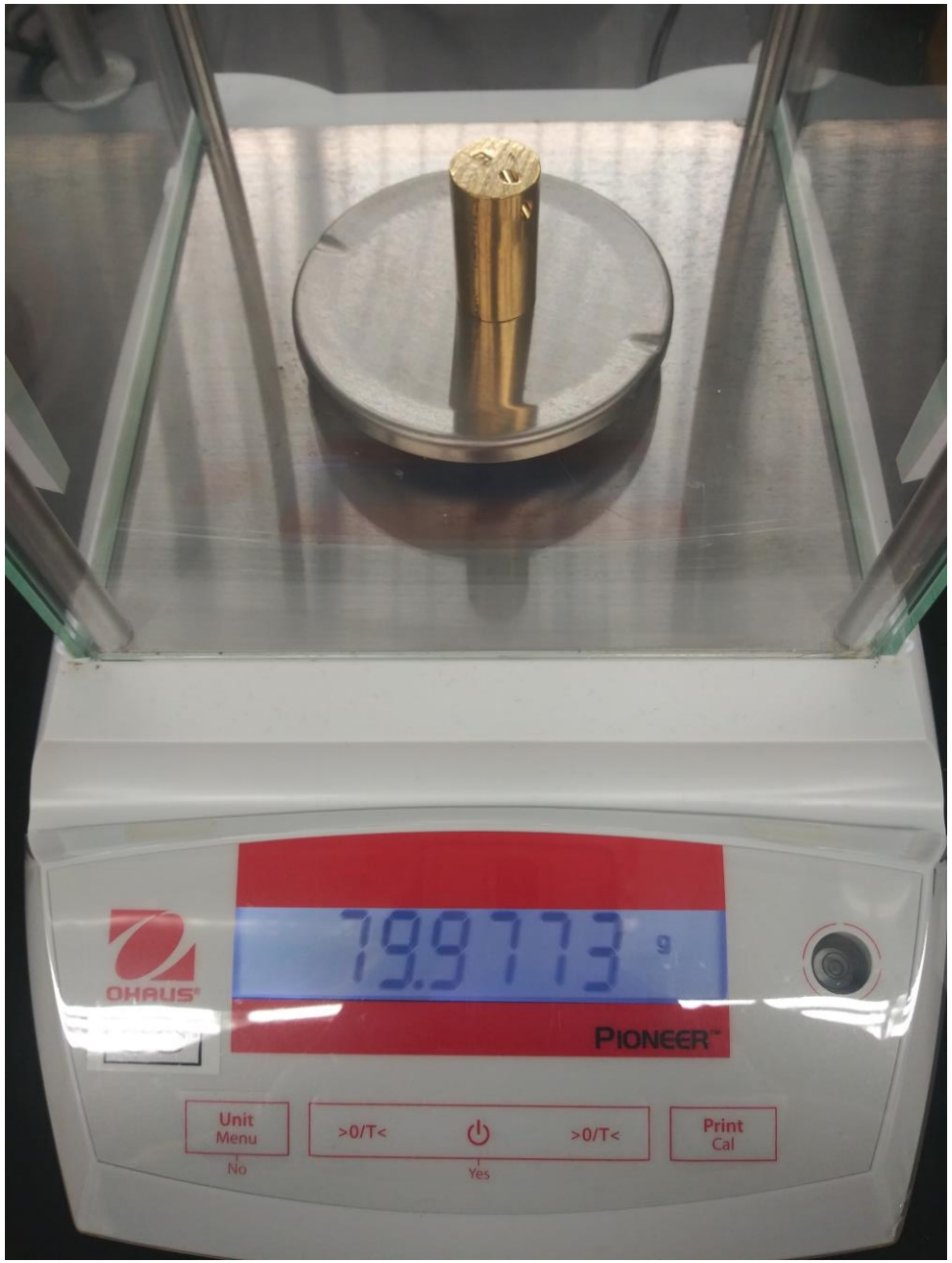

Added ~150 mL H2Ocold
metal C run #9
171.7476 g
OHAUS
39
PIONEER
Unit Menu
>0/T<
Yes
>0/T<
Print

Metal D


79.9653 g
OHAUS
PIONEER
Unit Menu
No
>0/T<
Yes
>0/T<
Print Cal


Added ~ 150 mL cold H2O Metal D exp
170.4192 g
OHAUS
39
PIONEER
Unit Menu
No
>0/T<
Yes
>0/T<
Print Cal

Metal E

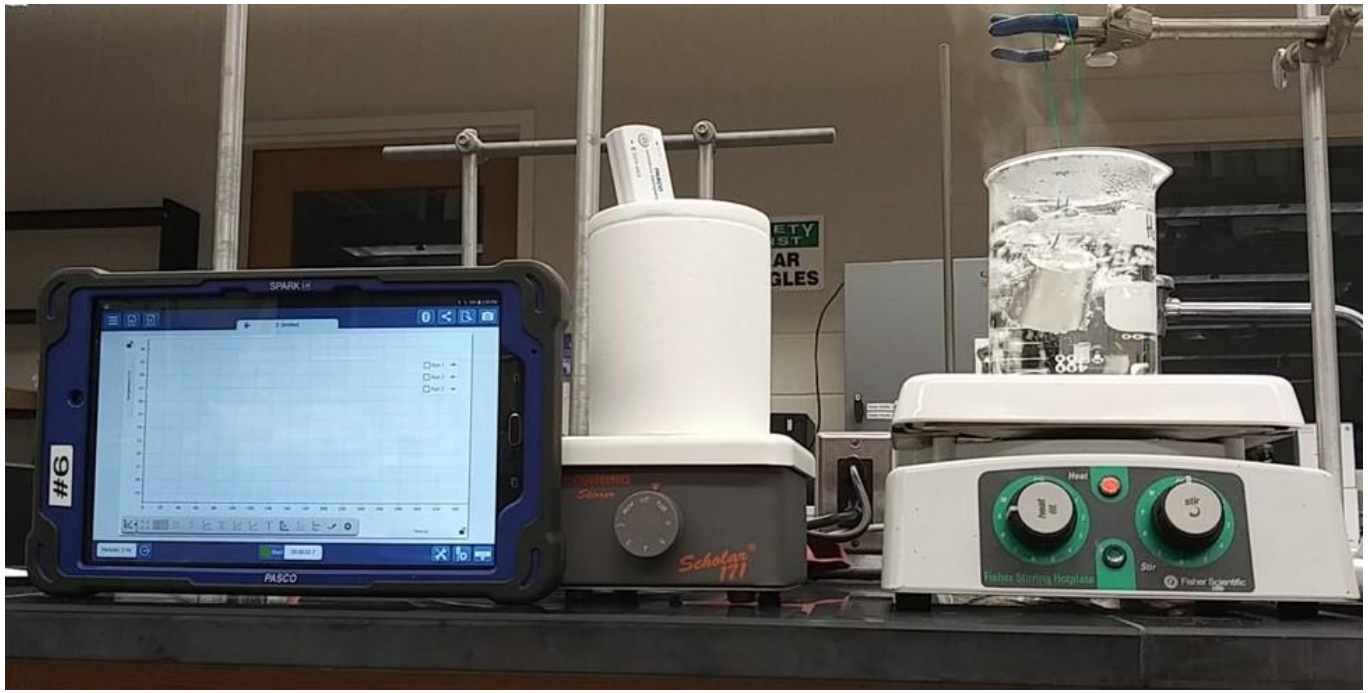

79.9773 g
OHAUS
PIONEER
Unit Menu
No
>0/T<
Yes
>0/T<
Print Cal


Added ~150 mL H2O cold
Metal E EXP
171.1418 g
OHAUS
39
PIONEER

Video in 2D:

https://youtu.be/I63TnABNi_c

Video in 360:

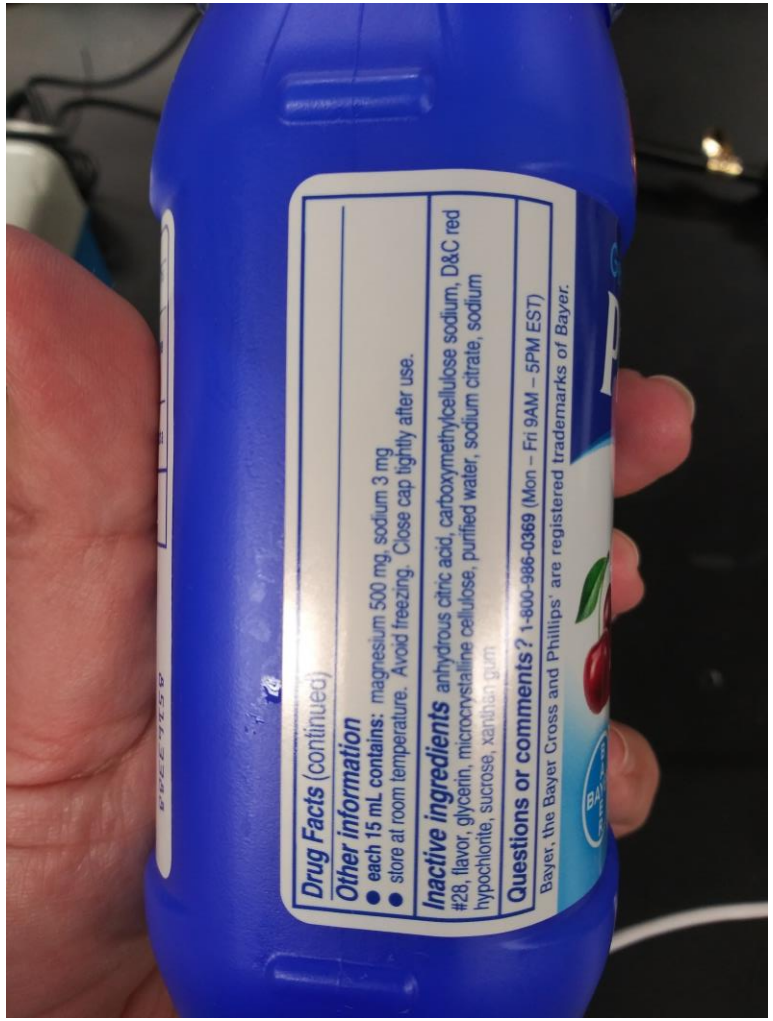


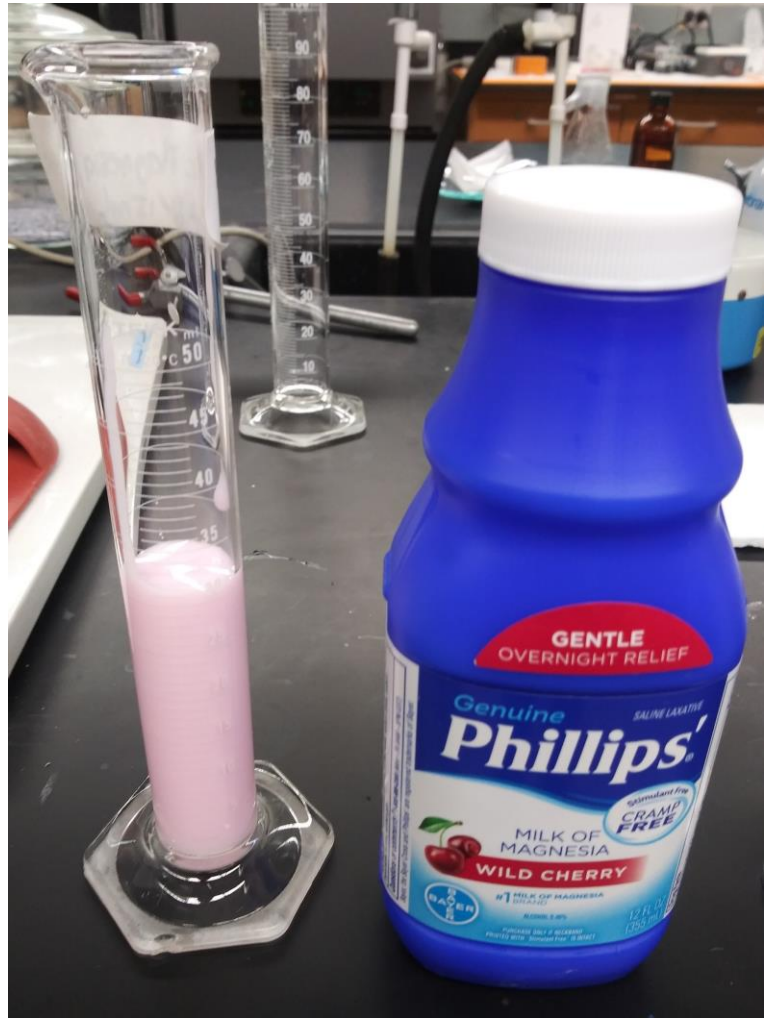
Experimental Data:

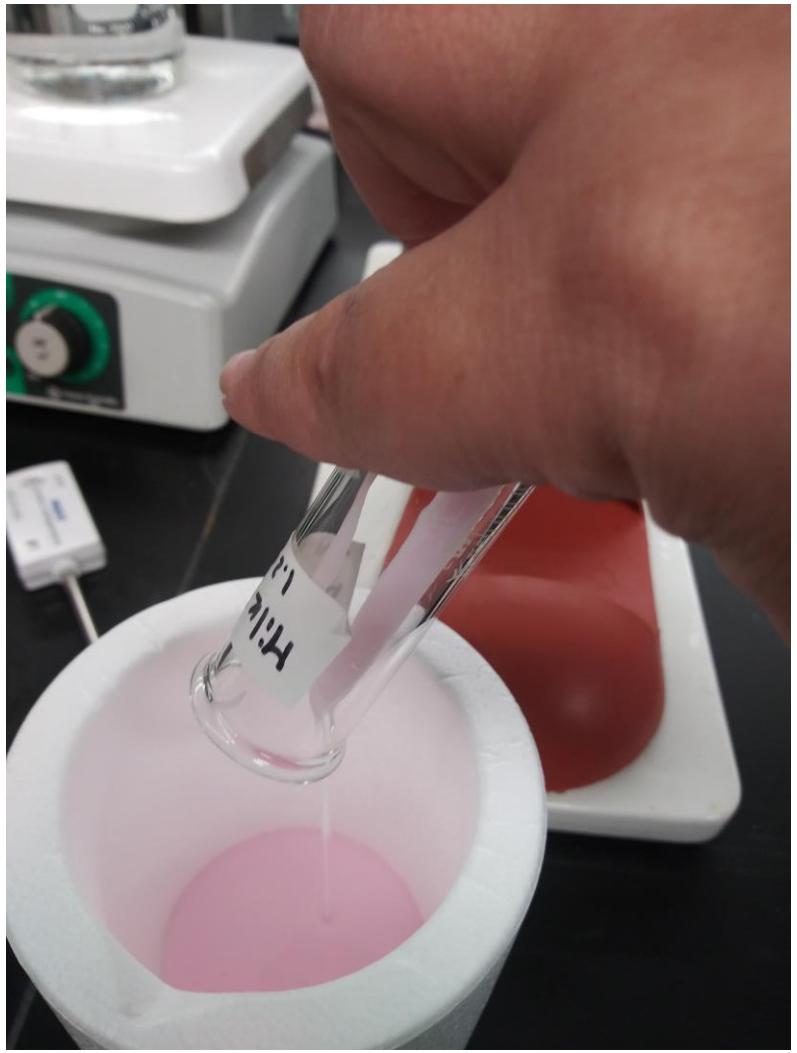
File name → LabNo3 _TempVsTime_Data.xlxs.
The data for this experimental section is in the excel file sheet labeled **HCMetalA or HCMetalB or HCMetalC or HCMetalD or HCMetalE**.

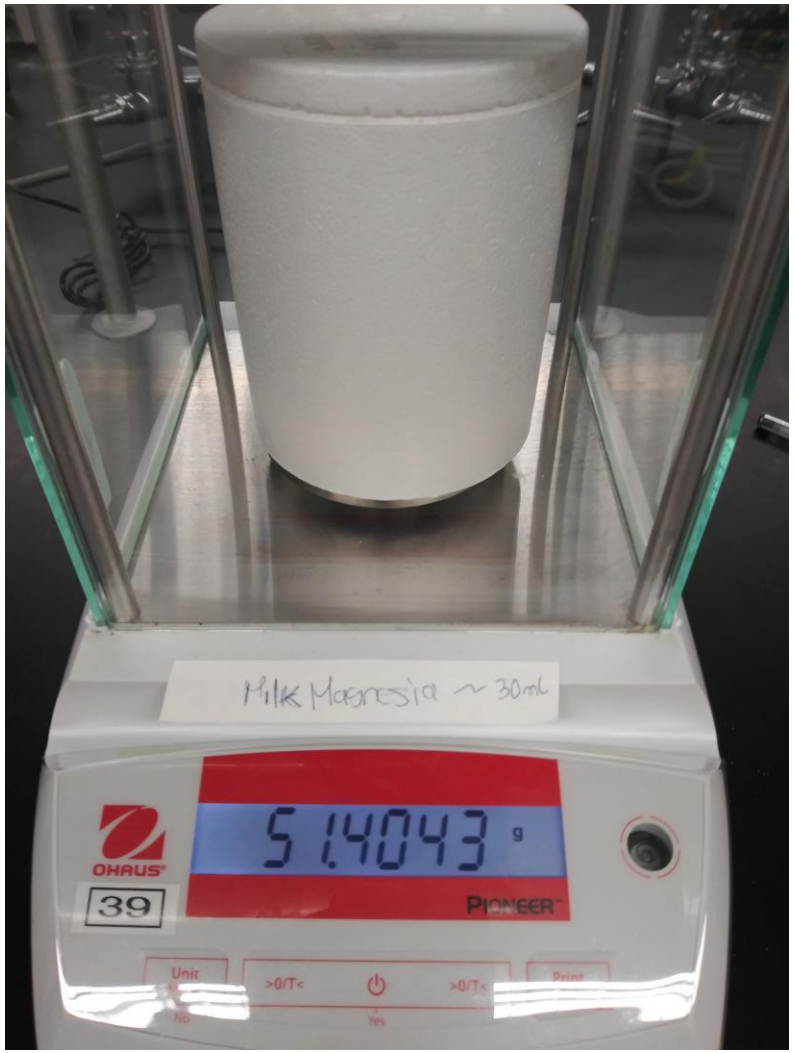
Numeral 29.


GENTLE
OVERNIGHT RELIEF
Genuine
Phillips'
SALINE LAXATIVE
Stimulant Free
CRAMP FREE
MILK OF MAGNESIA
WILD CHERRY
#1 MILK OF MAGNESIA BRAND
BAYER
ALCOHOL 0.45%
12 FL OZ (355 mL)
PURCHASE ONLY IF NECKBAND PRINTED WITH "Stimulant Free" IS INTACT

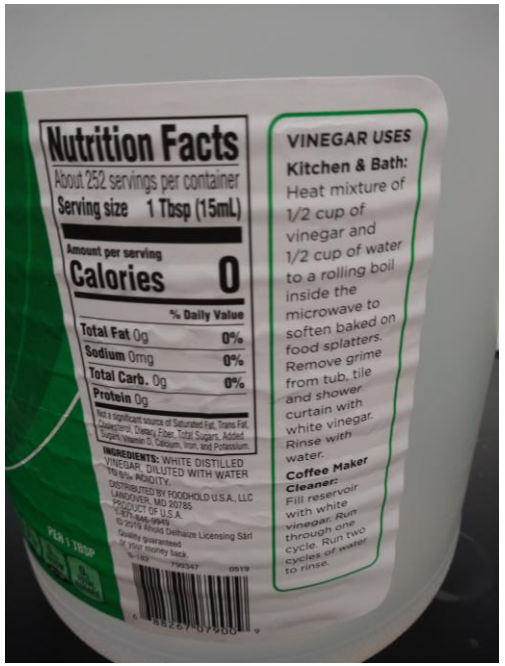

Drug Facts (continued)
Other information
● each 15 mL contains: magnesium 500 mg, sodium 3 mg
● store at room temperature. Avoid freezing. Close cap tightly after use.
Inactive ingredients anhydrous citric acid, carboxymethylcellulose sodium, D&C red #28, flavor, glycerin, microcrystalline cellulose, purified water, sodium citrate, sodium hypochlorite, sucrose, xanthan gum
Questions or comments? 1-800-986-0369 (Mon – Fri 9AM – 5PM EST)
Bayer, the Bayer Cross and Phillips' are registered trademarks of Bayer.

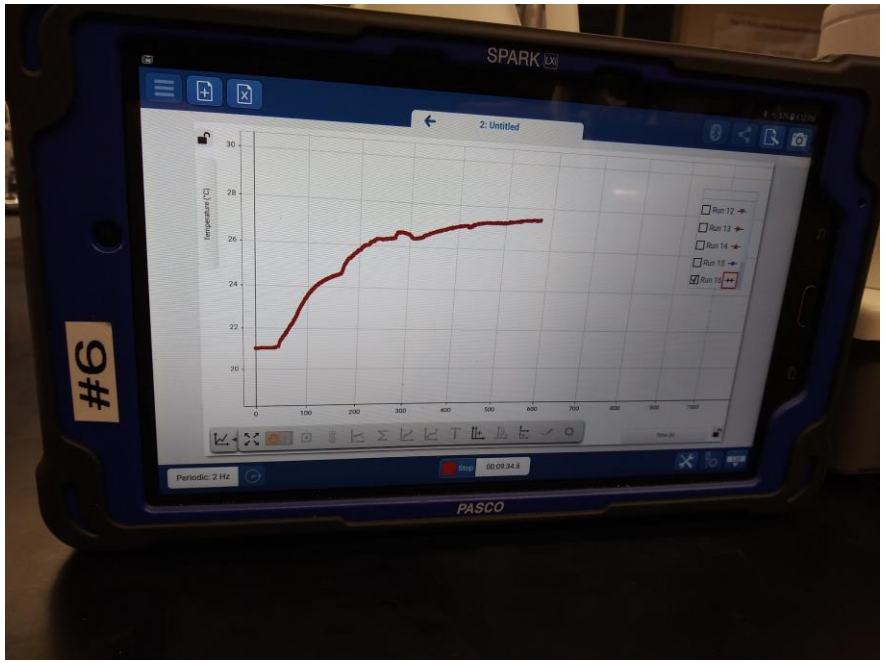

GENTLE
OVERNIGHT RELIEF
Genuine
Phillips'
MILK OF MAGNESIA
WILD CHERRY




Milk Magnesia ~ 30mL
OHAUS
39
51.4043 g
PIONEER
Unit
>0/T<
>0/T<
Print
No
Yes


SERVING SUGGESTION
Distilled White
Vinegar
5% ACIDITY
128 FL OZ (1 GAL) 3.78L
0 CALORIES
0g SAT FAT





Video in 2D:

https://youtu.be/AGFOTopNWeA

Video in 360:

Experimental Data:

File name → LabNo3 _TempVsTime_Data.xlxs.
The data for this experimental section is in the excel file sheet labeled **EnthalpyRxn.**