

EXP. NUMBER	EXPERIMENT/SUBJECT <i>Making PLA Beads</i>	DATE <i>2/2/2020</i>	100
NAME <i>Jodi Holliday</i>	LAB PARTNER	LOCKER/DESK NO.	COURSE & SECTION NO.

Organize using headers. What is the name of this experiment?

note- largest nozzle size is ID 1.3mm or 1300µm

Procedure?

Problems

- mixture was not feeding through .4mm nozzle - oops, didn't think about that ceramic pieces more dense than 1.5% alginate & sink to bottom
- options:
 - Get larger nozzle w/ ID 1.3mm, but that will produce larger beads as well
 - Buy tricalcium phosphate powder or smaller ceramic pieces (nanoparticles)
 - Harder option: (TCP)

Inject piece while drop is being made



What is this part? Add label

Never scribble through data
Strike through, initial and date

Strike through blank lines

- Grind up ceramic pieces before mixing

How? What size?

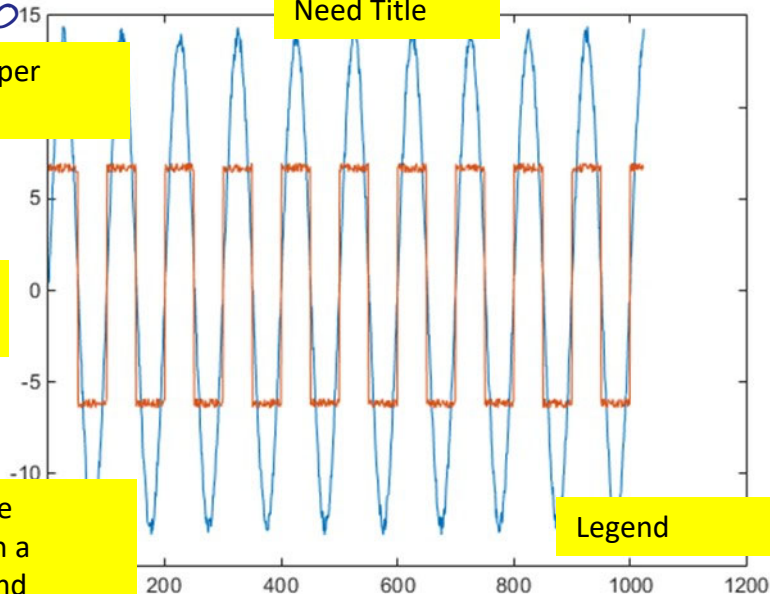
Research Student
2/2/2020

Need signature on paper insert and notebook

Need Title

Need labels for both axes

Electronic data should be archived (for example on a shared network drive) and referenced in the notebook



Legend

E:/sharedrive/experiment1/waveform2.o

Should be countersigned by a witness

SIGNATURE <i>Research Student</i>	DATE <i>2/2/2020</i>	WITNESS/TA <i>Another Student</i>	DATE <i>2/3/2020</i>
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EXP. NUMBER	EXPERIMENT/SUBJECT	DATE	101
	Making PLA Beads	1/30/2020	
NAME	Jodi Holliday	LOCKER/DESK NO.	COURSE & SECTION NO.
	Name of experiment		

Purpose: To synthesize isoborneo Purpose

Ref: SOP HL-23002020V1

Alginate + CaCl_2 hardening solution

1.4% alginate, 10mL
10mL DI water
.14g alginate

Strike through blank lines

Insert stir bar and heat at 55°C for 10min covered w/ parafilm

200mL 1.5% CaCl_2 stir 200mL DI water and 3g CaCl_2 in a beaker

Research Student

Amount of Salt /mol L ⁻¹	Time Taken for Hypocyt to Form / hr (± 6 hrs)			2/2/2020	
	Trial 1	Trial 2	Trial 3		
0.000	24	24	36	36	36
0.017	36	36	36	36	36
0.034	36	36	36	48	48
0.051	36	36	48	48	48
0.068	48	48	48	48	60

signature is on paper insert and notebook

CaCl_2 was poured into big basin & overflowed into larger basin - when liquid filled to top, 2int stir bar was turned on

5kV setting & agitator at 25%, .5mm OD needle was used, top bar positioned to 9.75cm manually fed alginate through hose, then turned on syringe pump 10mL/hr, 5mL 100 @ when beads are deposited, wait 20min for beads to fully set up before putting them in storage solution: .05M CaCl_2

top bar positioned to 9.5

2nd exp.

same setup protocol except distance between tip of needle & solution was ~~10cm~~ changed.

.5mm OD needle, 10mL/hr, 4mL loaded in syringe, 6kV After completion, beads were put in .05M CaCl_2 storage solution

conclusion

5kV & 6kV beads were examined on a slide & pictures were taken and measured on 4x obje

Sign it each day (waited several days here)

SIGNATURE	DATE	SIGNATURE	DATE
Research Student	2/2/2020	Another Student	2/3/2020