

Instructions for Use of the CO₂ *Drosophila* Anesthetizer

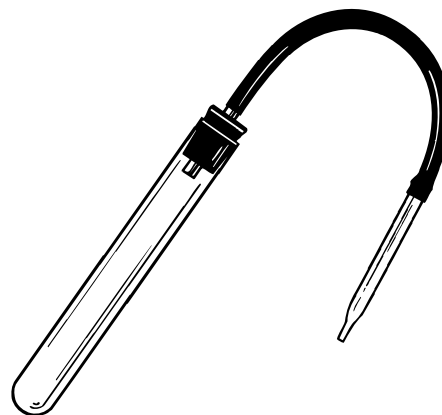


Introduction

Here's a safe and simple way to put fruit flies to sleep without any hazardous or expensive chemicals. The carbon dioxide (CO₂) gas generated with this technique will anesthetize the flies. Follow the anesthetizing with a cold plate technique to give you time to count and sex the flies.

Materials

- Alka-Seltzer® tablets
- Test tubes, 20 × 150 mm
- Rubber stoppers, No. 2, one-hole
- Glass tubing, 5 mm outside diameter, two-inch lengths
- Glass plates
- Pipet (medicine dropper) tips
- Rubber tubing, latex, 3/16" inside diameter, six to seven-inch lengths.



Procedure

1. Place glass plates or other ceramic plates in freezer or refrigerator.
2. Assemble apparatus as shown with test tube approximately one-fourth full of water.
3. When ready, drop one-fourth to one-half of an Alka-Seltzer tablet into the test-tube. CO₂ gas will immediately be generated.
4. Quickly insert pipet tip between wall of culture vial and foam or cotton stopper. Culture vial should be lying on its side.
5. If bubbles enter the glass or rubber tubing, decrease water volume and/or size of tablet piece used.
6. When flies are anesthetized transfer them to a cold plate for your observation with a stereoscope.

Acknowledgment

Technique presented at the 1992 California Science Teacher's Association convention by Jeff Orlinsky, Warren High School, Downey, CA

Replacement materials used for CO₂ *Drosophila* Anesthetizer are available from Flinn Scientific, Inc.

| Catalog No. | Description |
|-------------|----------------------------------|
| AP2302 | Rubber Stopper, Size 2, One-Hole |
| GP6068 | Test Tube, 20 × 150 mm |

Consult your *Flinn Scientific Catalog/Reference Manual* for current prices.