

Flaming Gummi Bears

Purpose

To illustrate rapid oxidation of sugar in the form of gummi bears.

Materials

25 × 200 mm test tube

KClO₃ (reagent grade)

ring stand / ring

gummi bears (stale)

wire gauze

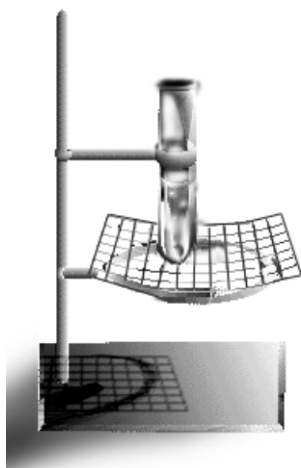
Fischer burner

clamp (no plastic)

Procedure

Preparation

1. Fill 25 × 200 mm test tube about ¼ with KClO₃.
2. Set-up apparatus as shown:



3. Heat test tube evenly until KClO₃ is completely melted – do this just before the demo is to be performed as once melted and solidified, the KClO₃ cannot be re-melted.

Presentation

1. While KClO₃ is hot and liquid, drop a gummi bear into tube and move back.
2. Gummi bear will light up producing tall flame and dancing inside the test tube.

3. Use care and add more gummi bears slowly.

Additional Information

1. Watch out for your fingers and splattering of KClO_3 .
2. Do not do this without a safety ring and wire gauze. KClO_3 will light up if dropped on base.
3. Cheetos can also be used in this demonstration. Stale cheetos work best.

Disposal

The solid remnants of the KClO_3 should be scraped out of the test tube as best as possible and placed in proper solid waste container. The remaining residue can be soaked to allow for easier removal and washed down the sink with excess water.

Reference

Moore, John. University of Wisconsin, Madison.