

Carol of the Bells

Purpose

A colorful oscillating reaction, made by the oxidation/reduction of indigo carmine.

Materials

NaOH	4 L beaker
Glucose	12 x 250 Erlenmeyer flasks with screw lid
Indigo carmine	

Procedure

1. For solution A: make 1.25 M NaOH (60g NaOH in 1.2 L of DI H₂O)
2. For solution B: make 0.166 M glucose (36g Glucose in 1.2 L of DI H₂O)
3. About 15 minutes before the show, add 0.6 g of indigo carmine to solution A (NaOH solution)
4. Pour both solutions into a 4 L beaker, the solution should be green
5. Pour 200 mL of the solution into each of the 250 mL flasks and stopper them
6. Allow to sit for a few minutes and the solutions will turn red.
7. For presentation, set flasks out across the lecture hall in a row, shake each of the flasks to turn them green, attempt to get all the flasks to be green. Be careful: the solution will turn yellow then red quickly!

Disposal

Solution can be poured down the drain with excess water.