

Lab Preparation for “ACIDS AND BASES”

Equipment that must be available

- 24 plastic wells plates (containing 12 large wells each)
- 1 vial of neutral litmus paper
- 12 pH colour cards

Solutions

6 small dropper bottles of each of:

- bromthymol blue indicator, labeled “Bromthymol blue”
- methyl red indicator, labeled “Methyl red”
- phenolphthalein indicator, labeled “Phenolphthalein”
- universal indicator, labeled “universal indicator”

6 – 100 mL bottles of each of:

- HCl (0.1 M), labeled “Highly Acidic”
- NaOH (0.1 M), labeled “Highly Basic”
- pH 7 buffer, labeled “NEUTRAL”
- pH 8 buffer, labeled “A”
- pH 5 buffer, labeled “B”
- pH 7 buffer, labeled “C”
- pH 6 buffer, labeled “D”
- pH 10 buffer, labeled “E”
- pH 4 buffer, labeled “F”
- pH 9 buffer, labeled “G”

Check that the following results are obtained when one drop of each indicator (or small piece of litmus) is added to one pipetful (using smallest plastic pipet available) of each liquid to be tested. If these results do not occur, remake the buffer or check its pH.

Indicator	pH = 4	pH = 5	pH = 6	pH = 7	pH = 8	pH = 9	pH = 10
Neutral litmus	pale pink	pale pink	pale pink	purplish red	reddish purple	purple	purple
Methyl red	pink	pinkish orange	slightly orange yellow	yellow	yellow	yellow	yellow
Bromthymol blue	yellow	yellow	slightly greenish yellow	green	blue	blue	blue
Phenolphthalein	colourless	colourless	colourless	colourless	colourless	slightly pink	pink
Universal Indicator	orangish red	orange	yellow	yellowish green	green	blue	bluish purple