

Materials:

Each **pair** needs (for controls and unknowns):

- 5 glucose broths (red cap, red liquid, durham tube)
- 4 lactose broths (white cap, red liquid, durham tube)
- 4 mannitol broths (blue cap, red liquid, durham tube)
- 10 MR-VP broths (red cap, amber liquid)
- 6 nitrate broths (red cap, clear liquid, durham tube)
- 5 citrate slants (blue cap, green slant)
- 5 BHIA slants
- 5 BHIA plates
- Control broth cultures (1 each per pair):
Escherichia coli
Enterobacter cloacae
Staphylococcus aureus
Pseudomonas aeruginosa

Lab 10 Goals and Objectives:

Exercise 41: Oxidation and Fermentation Tests

Each person for both unknowns set up inoculations in Fig 41.2 and 41.3 pg. 271-2 with changes: no O/F glucose tubes, for 'TSA plate' replace with streak for isolation on BHIA, one for each unknown, *P. aeruginosa* control separate (one per pair) see below, and add BHIA slant for each unknown

Each pair make one set of controls from Fig 41.4 pg 263, with changes: no O/F glucose tubes, *P. aeruginosa* alone on control 'TSA plate' (replace with BHIA plate), and add Nitrate broth control with *P. aeruginosa*

Each pair needs (for controls and unknowns):

- 5 glucose broths 4 lactose broths 4 mannitol broths
- 10 MR-VP broths 6 nitrate broths 5 citrate slants
- 5 BHIA slants (added for unknown, & replaces 'nutrient agar' control)
- 5 BHIA plates (replaces 'TSA' and acts as new streak for isolation)
- Control broth cultures (1 each per pair):
Escherichia coli, *Enterobacter cloacae* (replaces *E. aerogenes*)
Staphylococcus aureus, *Pseudomonas aeruginosa*

Discard old plates: new streak plates will be used next lab

Fig. 41.2

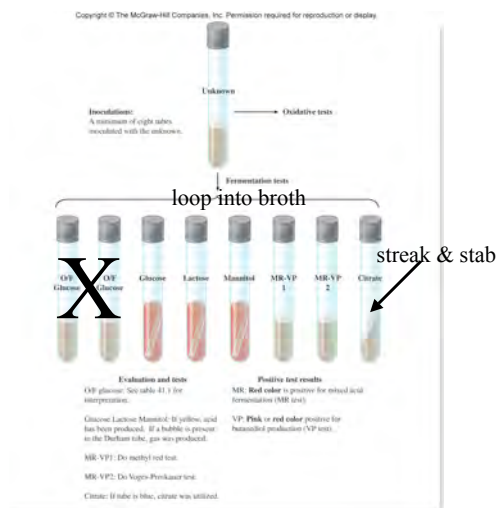


Fig. 41.3

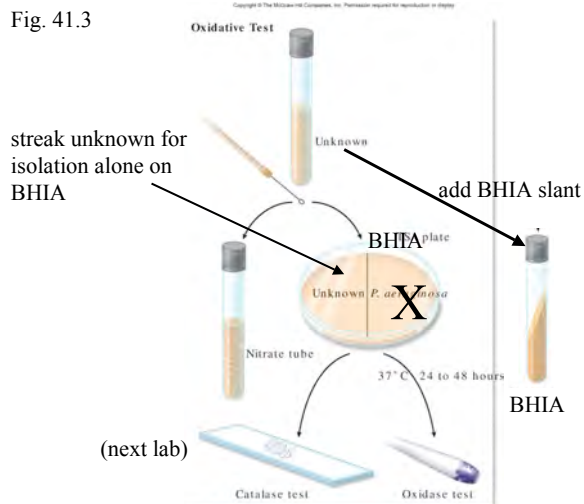
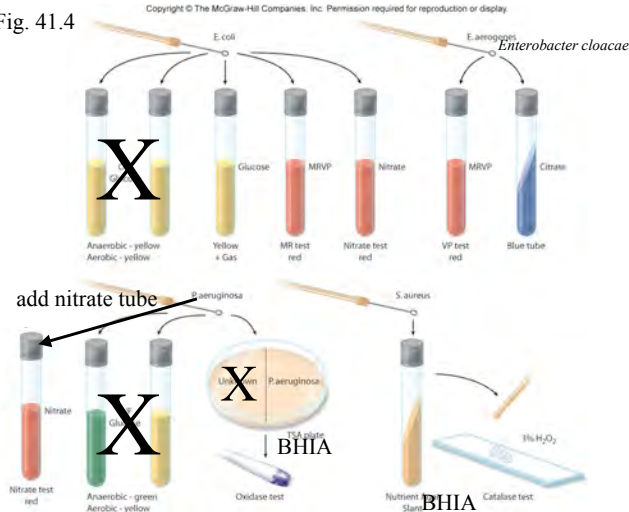


Fig. 41.4



Lab 10 Goals and Objectives:

Exercise 41: Oxidation and Fermentation Tests

Each person for both unknowns set up inoculations in Fig 41.2 and 41.3 pg. 271-2 with changes: no O/F glucose tubes, for 'TSA plate' replace with streak for isolation on BHIA, one for each unknown, *P. aeruginosa* control separate (one per pair) see below, and add BHIA slant for each unknown

Each pair make one set of controls from Fig 41.4 pg 263, with changes: no O/F glucose tubes, *P. aeruginosa* alone on control 'TSA plate' (replace with BHIA plate), and add Nitrate broth control with *P. aeruginosa*

Each pair needs (for controls and unknowns):

- 5 glucose broths 4 lactose broths 4 mannitol broths
- 10 MR-VP broths 6 nitrate broths 5 citrate slants
- 5 BHIA slants (added for unknown, & replaces 'nutrient agar' control)
- 5 BHIA plates (replaces 'TSA' and acts as new streak for isolation)
- Control broth cultures (1 each per pair):
Escherichia coli, *Enterobacter cloacae* (replaces *E. aerogenes*)
Staphylococcus aureus, *Pseudomonas aeruginosa*

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