Name: _____ Section: _____ Date: _____

Microbiology
Enzymatic Activity

Materials required: Day 1

- Blood agar plate (1), MacConkey Agar plate (1)
- Bacti-cinerator and loops
- Specimens: 18-24 hour culture (*Escherichia coli, Pseudomonas aeruginosa, Serratia marcescans, Staphylococcus aureus*)

Material required: Day 2

- Oxidase reagent
- Spot Indol reagent (CAUTION: contains Hydrochloric Acid)
- Catalase reagent (3% H2O2)
- Glass slides
- Filter paper wedges

Day 1:

1. Divide a Blood agar plate into four. Label with your initials, date, and class as done in previous labs. Label quadrant 1 (EC), 2 (PA), 3 (SM), and 4 (SA).
2. Using sterile technique, inoculate the appropriate organism into the respective quadrant. Incubate.

Day 2:

1. Touch a colony or isolated area of your inoculum with a sterile loop and place on filter paper. Place a drop of oxidase reagent on the inoculated area. Note the color change within 20 seconds. If the spot turns purple within 20 seconds, the reaction is positive. If the color changes after twenty seconds or not at all, the reaction is negative. Record your results.
2. Touch a colony or isolated area of your inoculum with a sterile loop and place on filter paper. Place a drop of indol reagent on the inoculated area. Note the color change within 30 seconds. If the spot turns blue within 30 seconds, the reaction is positive. If the color stays yellow or red after thirty seconds or not at all, the reaction is negative. Record your results.
3. Pick a small amount of a colony with a sterile loop and place it on a glass slide. You should be able to place all four organisms on one slide. Place a drop of catalase reagent (Hydrogen Peroxide) on the inoculated area. Note the presence of bubbles. If bubbles form, the reaction is positive. If no bubbles form, the reaction is negative. Record your results.

	Oxidase	Blood--Indol--Mac		Catalase
Escherichia coli				
Pseudomonas aeruginosa				
Serratia marcescans				
Staphylococcus aureus				

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