

Microbiology Lab Experiment Changes

Experiment #: 5-4

Title: Catalase

Live Organisms: *Enterococcus fecalis*, *Staph. aureus*, *M. luteus*,
B. spp. (*any species of Bacillus*)

Changes: Slide Test Method

1. Obtain a glass slide.
2. Put a drop of hydrogen peroxide on the slide.
3. Obtain an inoculum of bacteria (**use slant cultures**) using a sterile loop and mix the bacteria into the peroxide. Alternately, you may put the bacteria on the slide first then add a drop of peroxide. Either way works.
4. Observe for the presence of bubbles.
5. **Do Not put peroxide on the slant!**

Note: *Bacillus spp.* sometimes are not to be strong catalase producers. Use a heavy inoculum of this organism.

Take Home Lesson: See Experiment 30 in lab manual for additional background information. We are testing for the presence of the enzyme catalase. What reaction does catalase catalyze? Which groups of organisms possess catalase? What does superoxide dismutase do? Why is oxygen toxic to strict anaerobes?