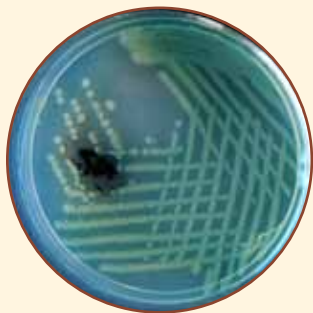




phenol-red sugar broth



catalase-positive
Micrococcus luteus



oxidase-positive
Pseudomonas aeruginosa



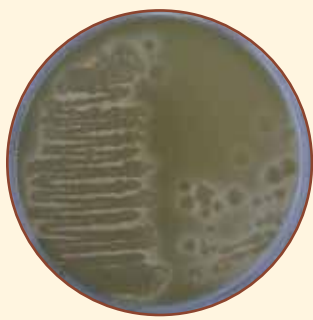
TSI: *Proteus mirabilis*



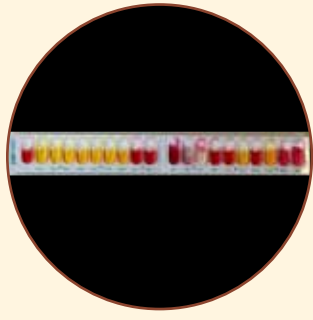
SIM: *Shigella*



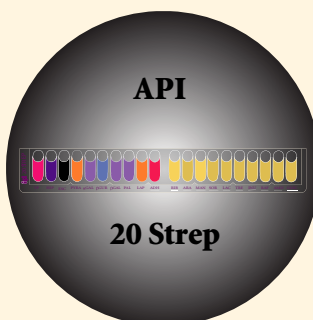
IMViC: *E. coli*



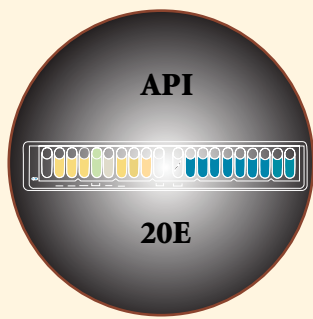
peptidoglycan hydrolysis



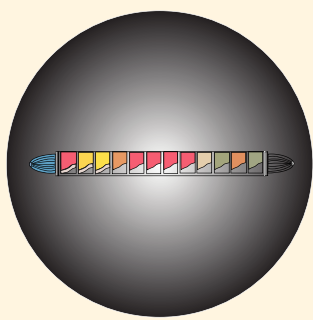
API Staph



API 20 Strep



API 20E



EnteroPluri

VI Microbial Biochemistry 1–11

1 Fermentation, 2 Catalase, 3 Oxidase, 4 Triple Sugar Iron Agar Slant,

5 Sulfide-Indole-Motility, 6 IMViC, 7 Extracellular Enzymes,

8 API Staph, 9 API 20 Strep, 10 API 20E, 11 EnteroPluri

Biochemistry 1 Fermentation

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- Objectives/Key Words
- Fermentation 1–2
- Fermentative Microbes✓
- Phenol Red Sugar Broth
- **Inoculating Phenol Red Sugar Broths (BSL1)**✓**
- **Inoculating Phenol Red Sugar Broths (BSL2)**✓**
- **Inoculating Phenol Red Sugar Broths (DL)**✓**
- Fermentation Reactions✓
- **Biochemistry Quick Quiz 1A: Fermentation**
- **Biochemistry Quick Quiz 1B: Best Practice**
- **Biochemistry Question Bank 1.1'–1.11**
- 23 interactive pdf pages
- 56 illustrations, 4 images of microbes

- * 3 techniques animations
- * 4 techniques videos
- ✓ 6 best practice animations
- ✓ 9 scenic microbiology, 40 images
 - ❖ Fermentation Substrates & Products 1,2
 - ❖ Brewing Speight's Beer, New Zealand
 - ❖ Greve in Chianti, Fermentation, & Legend of the Black Rooster
 - ❖ Irish Whisky, Dublin, Ireland
 - ❖ The Lord's Supper, Yeast Fermentation & Yeast Respiration
 - ❖ Sake Brewing Process
 - ❖ Soy Sauce & Soya Sauce
 - ❖ Vinegar Fermentation & Oxidation

Biochemistry 2 Catalase

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- Objectives/Key Words
- The Enzyme Catalase✓
- **Catalase Test (Biosafety Level 1)***✓**
- **Catalase Test (Biosafety Level 2)***✓**
- Catalase Reactions
- **Biochemistry Quick Quiz 2A: Catalase**
- **Biochemistry Quick Quiz 2B: Best Practice**
- **Biochemistry Question Bank 2.1'–2.2**

- 10 interactive pdf pages
- 11 illustrations, 6 images of microbes
- * 2 techniques animations
- * 6 techniques videos
- ✓ 4 best practice animations

Biochemistry 3 Oxidase

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- Objectives/Key Words
- Oxidase Reagent
- **Oxidase Test 1*✓–2*✓**
- Oxidase-Positive/Oxidase-Negative
- Oxidase Color Changes*
- **Biochemistry Quick Quiz 3A: Oxidase**
- **Biochemistry Quick Quiz 3B: Best Practice**
- **Biochemistry Question Bank 3.1'✓**

- 10 interactive pdf pages
- 10 illustrations, 9+ images of microbes
- * 1 techniques animation
- * 2 techniques videos
- ✓ 3 best practice animations

Biochemistry 4 Triple Sugar Iron Agar Slant

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- Objectives/Key Words
- Triple Sugar Iron Agar✓
- **Inoculating TSI Agar Slants (BSL1)**✓**
- **Inoculating TSI Agar Slants (BSL2)**✓**
- Reading TSI Agar Slants
- Glucose Fermentation
- Lactose/Sucrose Fermentation
- Iron Sulfide Formation
- TSI reactions of Enteric Bacteria
- **Biochemistry Quick Quiz 4A: TSI**
- **Biochemistry Quick Quiz 4B: Best Practice**
- **Biochemistry Question Bank 4.1'–4.2**

- 15 interactive pdf pages
- 11 illustrations, 4 images of microbes
- * 2 techniques animations
- * 2 techniques videos
- 4 best practice animations

Biochemistry 5 Sulfide-Indole -Motility

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- Objectives/Key Words
- SIM Medium✓
- **Inoculating SIM Agar Deepes (BSL1)**✓**
- **Inoculating SIM Agar Deepes (BSL2)**✓**
- **Inoculating SIM Agar Deepes (DN, BSL1, BSL2)**✓**
- **SIM Indole Test**
- SIM Reactions
- SIM Reactions of Enteric Bacteria✓
- **Biochemistry Quick Quiz 5A: SIM**
- **Biochemistry Quick Quiz 5B: Best Practice**
- **Biochemistry Question Bank 5.1'–5.2**

- 13 interactive pdf pages
- 9 illustrations, 4 images of microbes
- * 3 techniques animations
- * 4 techniques videos
- ✓ 6 best practice animations

Biochemistry 6 IMViC

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- Objectives/Key Words
- IMViC Reactions✓
- **Inoculating IMViC (Biosafety Level 1)***✓**
- **Inoculating IMViC (Biosafety Level 2)*✓**
- **Indole Test*✓**
- **Methyl Red Test*✓**
- **Vogues-Proskauer Test*✓**
- **Citrate Utilization✓**
- IMViC Enteric Reactions✓
- **Biochemistry Quick Quiz 6A: IMViC**
- **Biochemistry Quick Quiz 6B: Best Practice**
- **Biochemistry Question Bank 6.1'–6.3**

- 15 interactive pdf pages
- 12 illustrations, 10 images of microbes
- * 2 techniques animations
- * 5 techniques videos
- ✓ 9 best practice animations

Biochemistry 7 Extracellular Enzymes

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- Objectives/Key Words
- Cell Polymers & Extracellular Enzymes
- **Polymer Plate Hydrolysis (Biosafety Level 1)**✓**
- **Polymer Plate Hydrolysis (Biosafety Level 2)**✓**
- **Polymer Plate Hydrolysis (DL, BSL1, BSL2)***✓**
 - Casein Hydrolysis 1*–2'✓
 - Lipid Hydrolysis 1*–3'✓
 - Peptidoglycan Hydrolysis 1*–2'✓
 - Starch Hydrolysis 1*–2'✓
- **Gelatin Tube Hydrolysis (BSL1, BSL2)*✓**
 - Gelatin Hydrolysis 1–2'✓
- **Biochemistry Quick Quiz 7A: Extracellular Enzymes**
- **Biochemistry Quick Quiz 7B: Best Practice**
- **Biochemistry Question Bank 1.1'–1.3**

- 23 interactive pdf pages
- 16 illustrations, 9 images microbial biochemistry
- * 4 techniques animations
- * 4 techniques videos
- ✓ 10 best practice animations
- * 4 biochemistry structure animations

Biochemistry 8 API Staph

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- Objectives/Key Words
- API Staph 1'✓
- **API Staph Procedure***
- **API Staph Medium 1*✓**
- **Standard Cell Suspension (BSL1)**✓**
- **Standard Cell Suspension (DL, BSC, BSL2)***✓**
- **API Staph Inoculation (BSL1)**✓**
- **API Staph Inoculation (BSL2)*✓**
- **API Staph Reagents**✓**
- Reading API Staph*✓
- *Staphylococcus* Reactions
- Scoring API Staph
- API Staph Identifications
- **Biochemistry Quick Quiz 8A: API Staph**
- **Biochemistry Quick Quiz 8B: Best Practice**
- **Biochemistry Question Bank 8.1'–8.6**

- 22 interactive pdf pages
- 16 illustrations, 5 images of staph reactions
- * 6 techniques animations
- * 8 techniques videos
- ✓ 9 best practice animations
- ❖ 1 scenic microbiology, 1 image
 - ❖ Carolus Linnaeus' Binomial System & Species of Bacteria

Biochemistry 9 API 20 Strep

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- Objectives/Key Words
- API 20 Strep✓
- **API 20 Strep Procedure*✓**
- **API 20 Strep Inoculum 1*✓ 2*✓, 3*✓, 4*✓**
- **API Strep 20 GP Medium 1'–2*✓**
- **API Strep 20 Inoculation*✓**
- **API Strep 20 Reagents**
- Reading API 20 Strep✓
- API 20 *Streptococcus* Reactions
- Scoring API 20 Strep✓
- API 20 Strep Identifications✓
- **Biochemistry Quick Quiz 9A: API 20 Strep**
- **Biochemistry Quick Quiz 9B: Best Practice**
- **Biochemistry Question Bank 9.1'–9.4**

- 22 interactive pdf pages
- 16 illustrations, 4 images of strep reactions
- * 6 techniques animations
- ✓ 13 best practice animations

Biochemistry 10 API 20E

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- Objectives/Key Words
- Analytical Profile Index (API) 20E✓
- **API 20E Procedure*✓**
- **API 20E Suspension Medium✓**
- **API 20E Cell Suspension (Biosafety Level 1)*✓**
- **API 20E Cell Suspension (Biosafety Level 2)*✓**
- **API 20E Inoculation (Biosafety Level 1)*✓**
- **API 20E Inoculation (Biosafety Level 2)*✓**
- Reading API 20E 1'✓
- **API 20E Reagents*✓**
- Reading API 20E 2'✓
- API 20E Reactions
- Scoring API 20E✓
- API 20E Identifications✓
- **Biochemistry Quick Quiz 10A: API 20E**
- **Biochemistry Quick Quiz 10B: Best Practice**
- **Biochemistry Question Bank 10.1'–10.7**

- 24 interactive pdf pages
- 21 illustrations, 5 images of enteric reactions
- * 6 techniques animations
- ✓ 12 best practice animations
- ❖ 2 scenic microbiology, 4 images
 - ❖ Raw Chicken in the Grand Souk Morocco
 - ❖ Air Conditioners in Buenos Aires, Argentina

Biochemistry 11 EnteroPluri

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- Objectives/Key Words
- EnteroPluri-Test✓
- EnteroPluri Reactions
- **Inoculating an EnteroPluri**✓**
- Reading an EnteroPluri 1*✓
- **EnteroPluri Reagents 1*✓, 2***
- Reading an EnteroPluri 2
- Enteric Biochemical Reactions
- Scoring an EnteroPluri
- EnteroPluri Identifications
- **Biochemistry Quick Quiz 11A: EnteroPluri**
- **Biochemistry Quick Quiz 11B: Best Practice**
- **Biochemistry Question Bank 11.1'–11.3**

- 17 interactive pdf pages
- 10 illustrations, 3 images of enteric reactions
- * 1 techniques animation
- * 4 techniques videos
- ✓ 5 best practice animations