

### **Harris Hematoxylin**

Harris hematoxylin – 5.0 gm

Alcohol, 100% - 50.0 ml

Ammonium or potassium alum – 100.0 gm

DH<sub>2</sub>O – 1000.0 ml

Mercuric oxide – 2.5 gm

Dissolve the hematoxylin in the alcohol, the alum in the water by the aid of heat. Remove from heat and mix the two solutions. Bring to a boil as rapidly as possible. (Limit this heat to less than 1 minute and stir often). Remove from heat and add the mercuric oxide slowly. Reheat to a simmer until it becomes dark purple, remove from heat immediately and plunge the vessel into a basin of cold water until cool. The stain is ready for use as soon as it cools. Addition of 2-4 ml of glacial acetic acid per 100 ml of solution increases the precision of the nuclear stain. Filter before use.

### **Mayer's Hematoxylin**

Hematoxylin crystals – 1.0 gm

DH<sub>2</sub>O – 1000.0 ml

Sodium Iodate – 0.2 gm

Ammonium or potassium alum – 50.0 gm

Citric Acid – 1.0 gm

Chloral hydrate – 50.0 gm

Dissolve the aluminum in water, without heat; add and dissolve the hematoxylin in this solution. Then add the sodium iodate, citric acid and the chloral hydrate, shake until all components are in complete solution. The final color of the stain is reddish-violet. Stain keeps well for months.

### **Delafield's Hematoxylin**

Hematoxylin crystals – 8.0 gm

Alcohol, 95% - 50.0 ml

Ammonium or potassium alum, saturated aqueous solution

(approx. 15 gm/100ml)

Add the hematoxylin dissolved in the alcohol to the alum solution and expose to the light and air in an unstoppered bottle for 3-5 days. Filter and add:

Glycerin – 200.0 ml

Alcohol, 95% - 200.0 ml

Allow the solution to stand in the light approximately 3 days, filter and keep in a tightly stoppered bottle.

### **Bohmer's Hematoxylin**

Hematoxylin crystals – 5.0 gm

Ammonium or potassium alum – 100.0 gm

Alcohol, 80 % - 60.0 ml

DH<sub>2</sub>O – 1000.0 ml

Dissolve the hematoxylin in the alcohol and the alum in DH<sub>2</sub>O. Mix and ripen by exposure to light and air for about 2 weeks.

### **Bullard's Hematoxylin**

Hematoxylin crystals – 8.0 gm

Alcohol, 80 % - 144.0 gm

Glacial Acetic Acid – 16.0 ml

Dissolve by gentle heat and add mixture of:

Ammonium or potassium alum – 20.0 gm

DH<sub>2</sub>O – 250.0 ml

Heat to boiling and then remove from flame and add slowly.

Mercuric Oxide – 8.0 gm

Cool quickly, filter and add mixture of:

Alcohol, 95% - 275.0 ml

Glycerin – 330.0 ml

Glacial Acetic Acid – 18.0 ml

Ammonium or potassium alum – 40.0 gm

### **Ehrlich's Hematoxylin**

Hematoxylin crystals – 4.0 gm

Alcohol, 95% - 200.0 ml

Ammonium or potassium alum – 6.0 gm

DH<sub>2</sub>O – 200.0 ml

Glycerin – 200.0 ml

Glacial Acetic Acid – 20.0 ml

Dissolve the hematoxylin in the alcohol and the alum in DH<sub>2</sub>O and mix. After these are in complete solution add the glycerin and acetic acid.

*Note: Aluminum ammonium sulfate is known as ammonium alum. Aluminum potassium sulfate is known as potassium alum.*

### **Weigerts Iron Hematoxylin solution**

Equal parts of solution A and B

Solution A

Hematoxylin crystals - 1.0 gm

95% Alcohol - 100.0 ml

Solution B

Ferric Chloride, 29% aqueous - 4.0 ml

DH<sub>2</sub>O - 95.0 ml

Hydrochloric acid, concentrated - 1.0ml

Ferric chloride 29%

Ferric chloride - 29.0 ml

DH<sub>2</sub>O - 100.0 ml