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J-604, LILLIE'S METHOD FOR FERRIC AND FERROUS IRON

Fixation: **10% Buffered Neutral Formalin** (F-113)

Sections: Parrafin @ 6 microns.

Preparation of Potassium Ferrocyanide Solution:

Potassium Ferrocyanide (J-604-1) 0.4 gm. Hydrochloric Acid (J-604-2) 40 ml.

Prepare fresh, just before use.

Preparation of Potassium Ferricyanide Solution:

Potassium Ferricyanide (J-604-1A) 0.4 gm. Hydrochloric Acid (J-604-2) 40 ml.

Prepare fresh, just before use.

Staining: (Use control slide. Use chemically clean glassware)

- 1. Deparaffinize and hydrate to distilled water.
- 2. For Ferric Iron, place in Potassium Ferrocyanide Solution for 1 hour. For Ferrous Iron, place in Potassium Ferricyanide Solution for 1 hour.
- 3. Wash well in **Acetic Acid**, 1% (J-604-4).
- 4. Stain for 10 minutes in <u>Basic Fuchsin Solution</u> (J-604-3). Rinse in distilled water. (For critical work, omit this step.)
- 5. Dehydrate in 95% alcohol, absolute alcohol and clear in xylene two changes each.
- 6. Mount with **Permount** (M-18).

Stain Results:

Ferric iron	Dark Prussian, blue
Ferrous iron	Dark turnbull's blue
Background	Light Red

References:

Lillie, R.D., <u>Histopathologic Technic and Practical Histo-chemistry</u>, 3rd edition, McGraw-Hill, N.Y.., p.407., c 1965.

Luna, .G., (ed.) <u>Manual of Histologic Staining Methods of the AFIP</u>, 3rd edition, McGraw-Hill, N.Y., p.182., c, 1968