

J-606, PERLS' METHOD FOR IRON

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

Sections: Paraffin @ 6 microns.

Staining: Use control slide. Use chemically clean glassware.

1. Deparaffinize and hydrate to distilled water.
2. Place slides in **Potassium Ferrocyanide, 10%** (J-606-1) for 5 minutes.
3. Stain in working Potassium Ferrocyanide-hydrochloric acid solution for 20 minutes. Rinse well in distilled water.

To Prepare working stain, mix just before use:

Potassium Ferrocyanide, 10% (J-606-1) 70 ml
Hydrochloric Acid, 10% (J-606-2) 30 ml

4. Counterstain in **Nuclear Fast Red** (J-606-3) for 5 minutes. Wash well in running water.
5. Dehydrate in 95% alcohol, absolute alcohol and clear in xylene, two changes each.
6. Mount with **Permount** (M-18).

Stain Results:

Ferric Iron	Bright Blue
Nuclei	Red
Cytoplasm	Light Pink

Additional metals in large quantities may be demonstrated with this method. The metals and their color reactions are:

Copper	Red
Uranium	Brown
Nickel	Greenish-white or brown

References:

Luna, L.G.(Ed.), Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology; 3rd ed., McGraw-Hill, NY, c 1968, p 184.

Perls, M., Virchow. Arch. Path. Anat., 39:42, 1867.

