A-104 WADE'S METHOD FOR ACID-FAST ORGANISMS

<u>FIXATION:</u> <u>10% Buffered Neutral Formalin</u> (F-113) or <u>Zenker's</u> Modified (F-222). <u>TECHNIQUE:</u> Cut paraffin at 6 microns

STAINING PROCEDURE: Use control slide

- 1. Deparaffinize in a solution made from 2 parts of rectified turpentine and 1 part liquid Petrolatum. Use 2 changes, 5 minutes each.
- 2. Drain; wipe off excess liquid, blot to opacity.
- 3. Wash in water for 2 minutes.
- 4. Stain in Carbol New Fuchsin Solution (A-104-1) overnight.
- 5. Wash in water for 2 minutes.
- 6. Place in **Formaldehyde**, 37-40%, (A-104-4) for 5 minutes.* Wash in running water for 2 minutes.

*The bacilli become blue while the sections may turn blue or remain mostly reddish. If total demonstration of bacilli is in question, step 1 may be lengthened to 4-6 hours for "restoration" of poorly stained bacilli.

- 5. Place for 1 minute in <u>Sulfuric Acid, 5%</u>, (A-104-5). Wash thoroughly for 5 minutes in running water.
- 6. Place for 3 minutes in **Potassium Permanganate**, **1%**, **Aqueous** (A-104-6). Rinse in water.
- 7. Bleach in <u>Oxalic Acid, 2%, Aqueous</u> (A-104-7) for 30-60 seconds and wash well in running water.
- 8. Counterstain in Modified Van Gieson Solution (A-104-2) for 3 minutes.
- 9. Dehydrate rapidly in 95% alcohol.
- 10. Clear in <u>**Xylene**</u> (C-120), two changes each.
- 11. Mount with <u>**Permount**</u> (M-18).

RESULTS:

Acid-fast bacilli	deep ultramarine blue or blue-
	black
Connective Tissue Elements	red
Background	yellowish

REFERENCES:

Wade, H.W., Amer. J. Path., 28:157, 1952.

Luna, L.G. (ed.), <u>Manual of Histologic Staining Methods of the AFIP</u>, 3rd edition, McGraw-Hill, N.Y., p. 220, c. 1968.