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**Matric Number: 17/MHS03/007**

**Course Name: Histochemistry**

**Course Code: ANA 304**

**Assignment Title: Short Assignment**

1. Acridine orange
2. **Luxol fast blue stain**, abbreviated **LFB stain** or simply **LFB**, cannot discern myelination in the peripheral nervous system.

**Adams’s OTAN Method for Normal and**

**Degenerating Myelin**

**Solutions Needed**

**A. Osmium Tetroxide-Potassium Chlorate**. This is made up as required and used only once.

Osmium tetroxide, 2% stock solution in water: 5mL Potassium chlorate (KClO3), 1% stock solution in water: 30mL

Water: 5mL

**B. Saturated α-Naphthylamine Solution**. Dissolve a few crystal of α-naphthylamine in 40mL of water at 40°C. Filter. This solution is used at 37°C

**Procedure**

1. Treat the sections with osmium tetroxide-potassium chlorate (Solution A) overnight at room temperature, in a tightly closed glass container.

2. Wash the sections for 10 min in water (3 changes with occasional agitation).

3. Treat the sections with saturated α-naphthylamine solution (B) for 20 min at 37°C.

4. Wash the sections for 5 min in water (3 changes with occasional agitation)

5. Apply coverslips, using an aqueous mounting medium.

**Result**

Normal myelin is brownish–orange.

 Degenerating myelin (late products only) is black.

 Fat, if present in the tissue, is also blackened