**Recipes for Solutions**

**0.1M Cacodylate Buffer, pH 7.4**

10.7g  Cacodylic Acid, Sodium Salt + 3H2O

Bring to 500ml with ddH2O

pH to 7.4 with HCl

**OR**

8g Cacodylic Acid without H2O

Bring to 500ml with ddH2O

pH to 7.4 with HCl

Store solution at 4°C.

**2% Osmium (0.2M)**

*Wear gloves and work in fume hood*

1g  O5O4 in glass ampoule (score and break off top)

Add 3 ml of ddH2O to the ampoule, and swish back and forth to mix.

Place whole ampoule in 47ml ddH2O.

Allow osmium to go into solution overnight.

Osmium in the ampoule is stable for 5 months. 2% osmium is stable for approximately 2 months at 4°C.

To make a 1% osmium solution, mix equal volumes of 2% osmium (0.2M) and 0.1M Cacodylate Buffer.

**Araldite 502 / Embed 812 Embedding Mix (Epon)**

Use a 15ml centrifuge tube to mix epon.

Add components according to the gradations on the side of the 15ml centrifuge tube, except for the accelerator (DMP30), which must be added with a pipette.

2.5ml Embed 812

1.5ml Araldite 502

5.5ml DDSA

190ul DMP30

9.66ml total

Stir with an applicator stick to mix. The amber color should be evenly distributed throughout the epon solution. Pour into a scintillation vial and place on a rotator or rocker without the lid. Mix well for at least 15 minutes.

**1% Paraphenylenediamine (PPD) in 1:1 methanol and 2-propanol**

25 mL methanol

25 mL 2-propanol

500 mg PPD

In 50 mL tube and incubate overnight