

## Introduction

Uranium is the heaviest metal used in staining and can be used as a general contrast agent. Uranyl Acetate binds to nucleic acids, to proteins and to membranous structures.



### **WARNING**

**Uranium compounds are toxic and radioactive. Contact your safety officer or local authorities for appropriate handling and disposal protocols.**

### ➤ **The reagents required:**

- Uranyl Acetate (5% stock in double distilled water, pH 3.5 with HCl, kept at 4°C in the dark)
- Tannic Acid (2% stock in double distilled water)
- Double distilled water
- 0.45 µm filters

### ➤ **Procedure:**

1. Before starting, prepare fresh 1% Tannic Acid in distilled water and acidic 0.1% Uranyl Acetate (diluted in double distilled water from stock and filtered through 0.45 µm syringe filters).



### **NOTES**

- a. **Since Uranyl precipitates in the presence of Phosphate, samples must be rinsed thoroughly to remove traces of Phosphates before Uranyl staining.**
- b. **Perform all the following steps at room temperature.**

2. Wash three times, five minutes each wash, with double distilled water.
3. Incubate with 1% Tannic Acid for 5 minutes.
4. Wash three times, five minutes each wash, with double distilled water.
5. Incubate with 0.1% Uranyl Acetate for 10 minutes.

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**NOTE**

*The optimal concentration and incubation time may vary depending on the specimen.*

6. Wash three times, five minutes each wash, with double distilled water.



**NOTE**

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