

PRACTICAL -5

PROPER SECTION CUTTING

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❖ PROPER SECTION CUTTING

Typically 5 μm thick for light microscopy
And 80-100 nm thick for electron microscopy.

TECHNIQUES OF CUTTING PARAFFIN SECTIONS:

- 1- Orientation of the block on the microtome
- 2- Setting the knife in the suitable angle
- 3- Trimming or shaving the block
- 4- Cutting the section to the required thickness

GENERAL FAULTS WHEN CUTTING PARAFFIN SECTIONS:

- a- Blunt knife and a damage knife edge
- b- Block or knife not well locked by screws or both
- c- Incorrect setting of the knife

For easy and good sectioning the following points are necessary:

- 1- Appropriate microtome and appropriate knife
- 2- Well prepared knife
- 3- Perfect setting includes:
 - a-Relation of the knife to the object
 - b-Tilt of inclination of the knife
 - c-Angle clearance which depends on the profile of the knife, it govern the angle of slant.
- 4- Proper processed tissue
- 5- The skill of the technologist
- 6- The rate of cutting
- 7- The temperature of the atmosphere and the moisture
- 8- The orientation of the tissue block.

Thank

you

ladies...