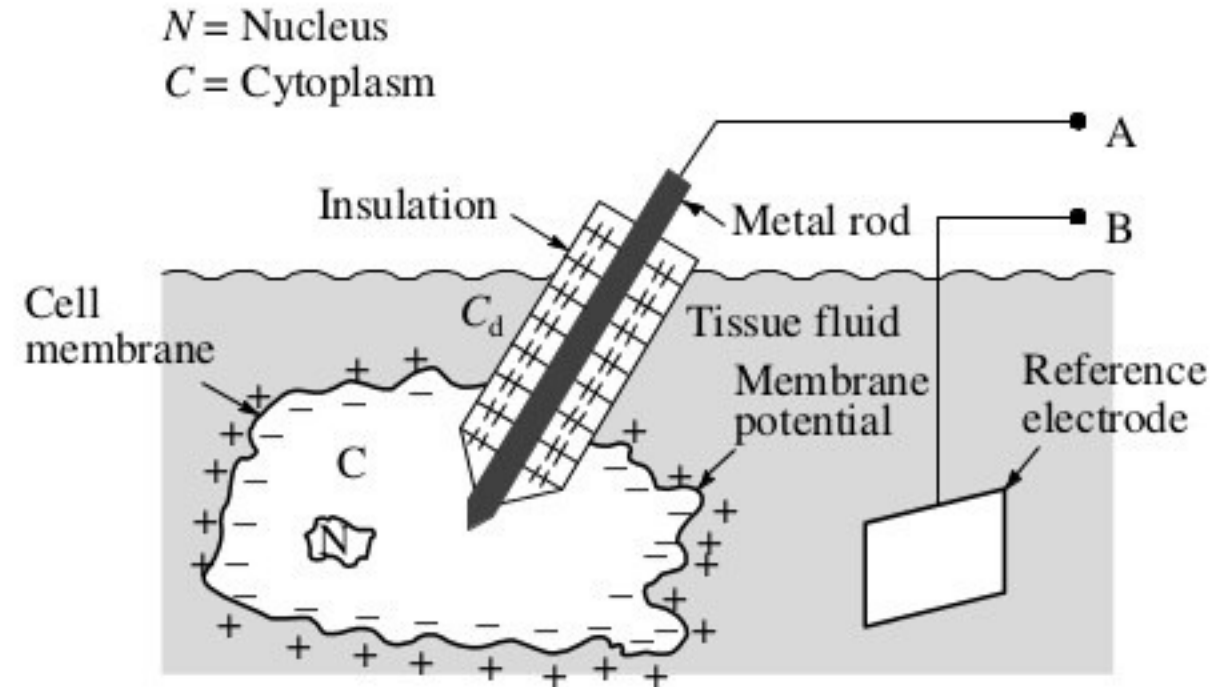


Microelectrodes

Used in studying the electrophysiology of excitable cells by measure potential differences across the cell membrane.

Electrode need to be small and strong to penetrate the cell membrane without damaging the cell.

Tip diameters = 0.05 to 10 μm



Microelectrodes

The structure of a metal microelectrode for intracellular recordings.

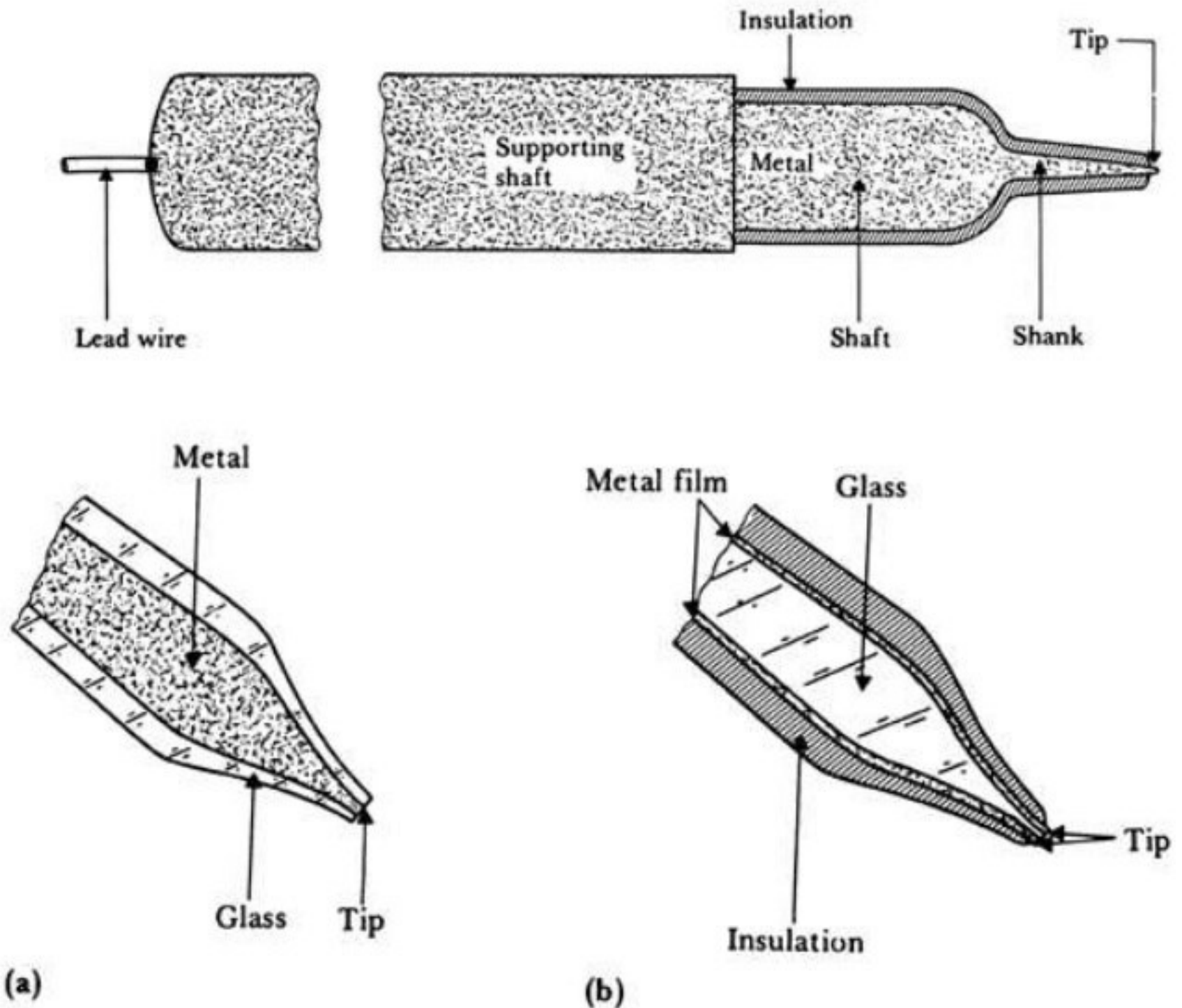
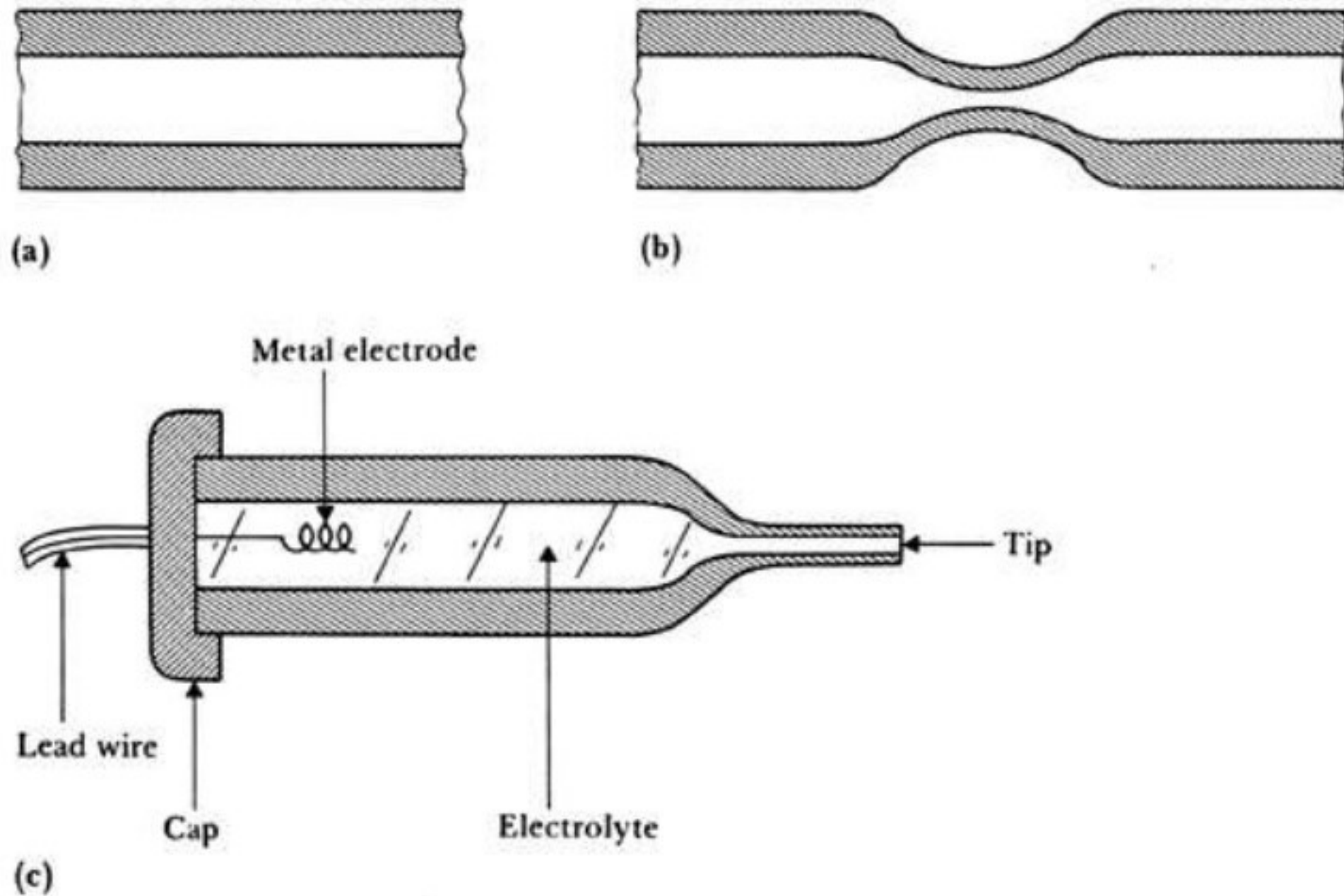


Figure 5.18 Structures of two supported metal microelectrodes (a) Metal-filled glass micropipet. (b) Glass micropipet or probe, coated with metal film.

Microelectrodes



A glass micropipet electrode filled with an electrolytic solution (a) Section of fine-bore glass capillary. (b) Capillary narrowed through heating and stretching. (c) Final structure of glass-pipet microelectrode.