3. 2 Basic Characteristics of Dynodes

This section introduces typical dynode types currently in use and describes their basic characteristics: collection efficiency and gain (current amplification).

3. 2. 1 Dynode types and features

There are a variety of dynode types available and each type exhibits different gain, time response, uniformity and secondary-electron collection efficiency depending upon the structure and the number of stages. It is essential to select the optimum type in accordance with your application. Figure 3-9 illustrates the cross sectional views of typical dynodes and their features are briefly discussed in the following sections. MCP-PMT's incorporating a microchannel plate for the dynode and photomultiplier tubes using a fine-mesh dynode are detailed in Chapter 4 and Chapter 6, respectively.

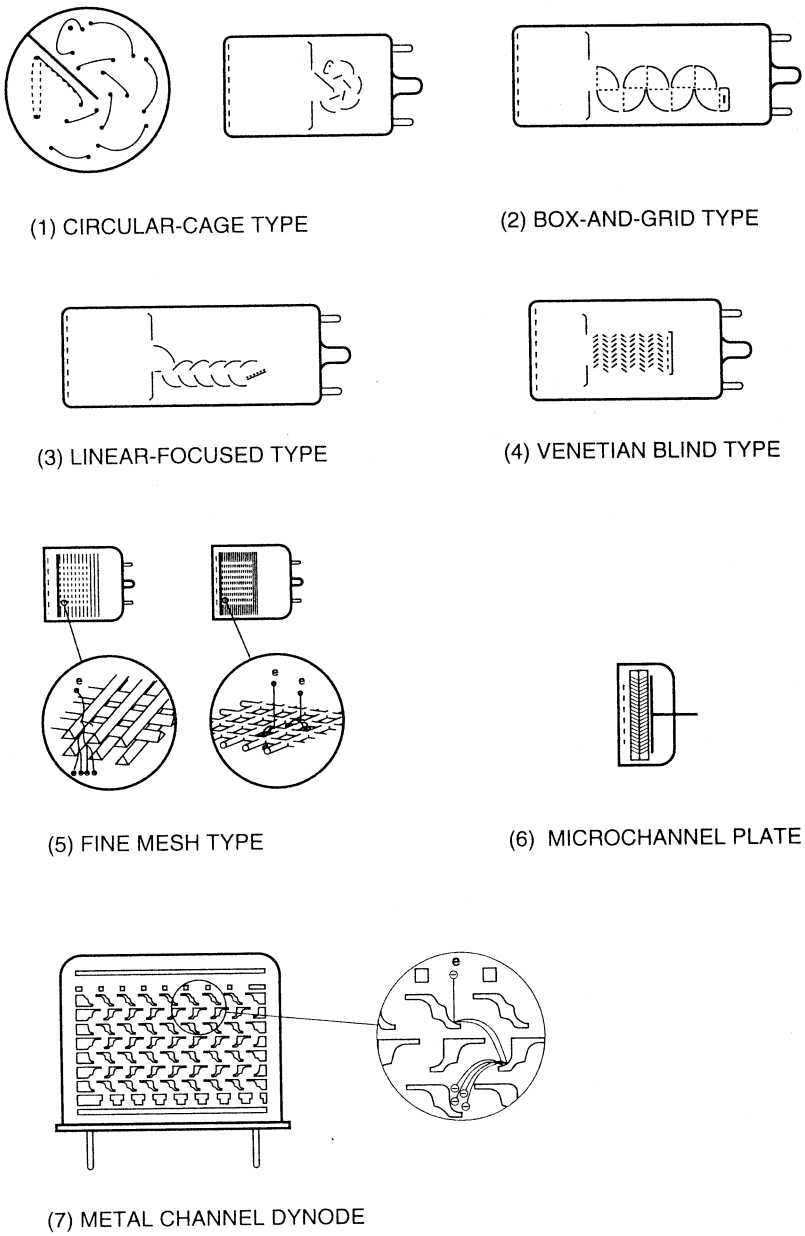

Figure 3-9: Types of electron multipliers