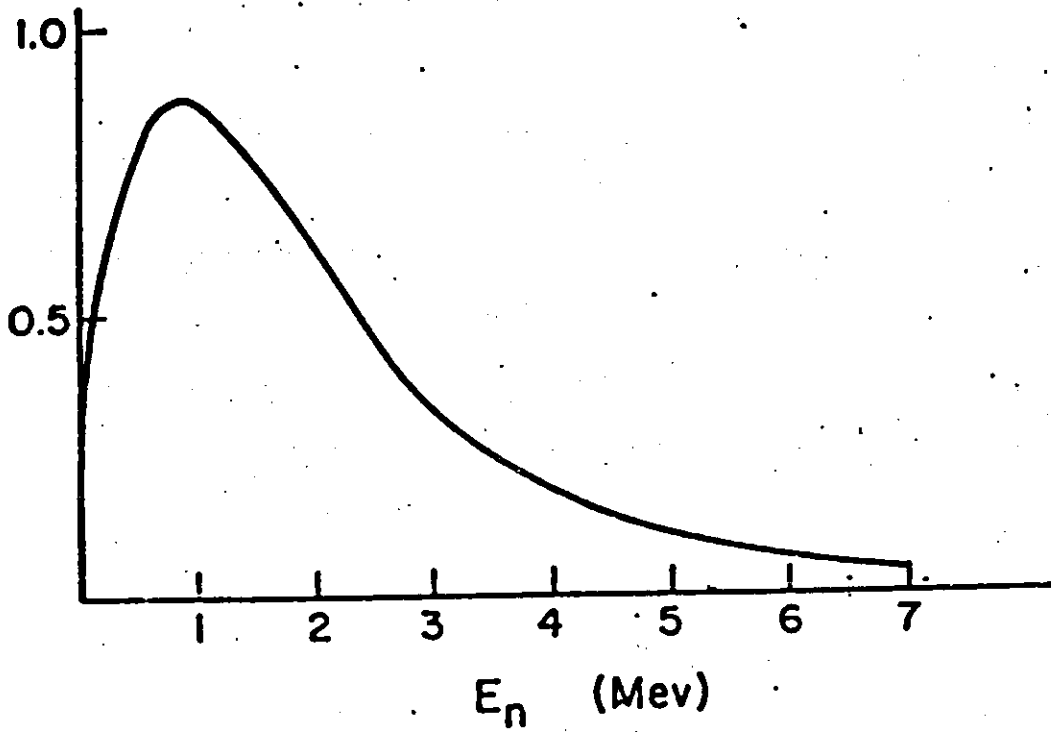


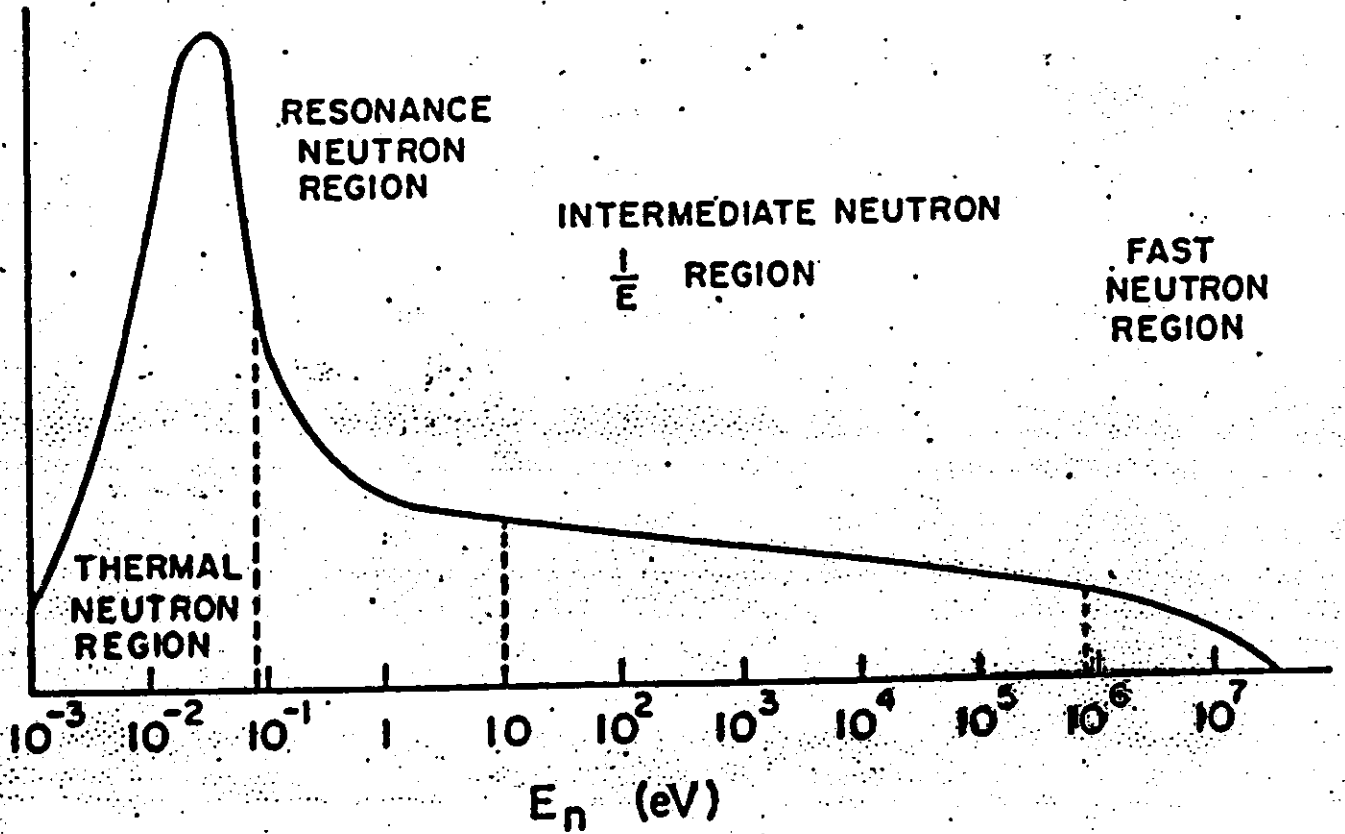
Irradiation Sources

$N(E)$ (Relative Number/Mev)



(a)

$\phi(E)$ (Neutron Flux/Mev)



(b)

4.1d

A SLOWPOKE-2 INSTALLATION

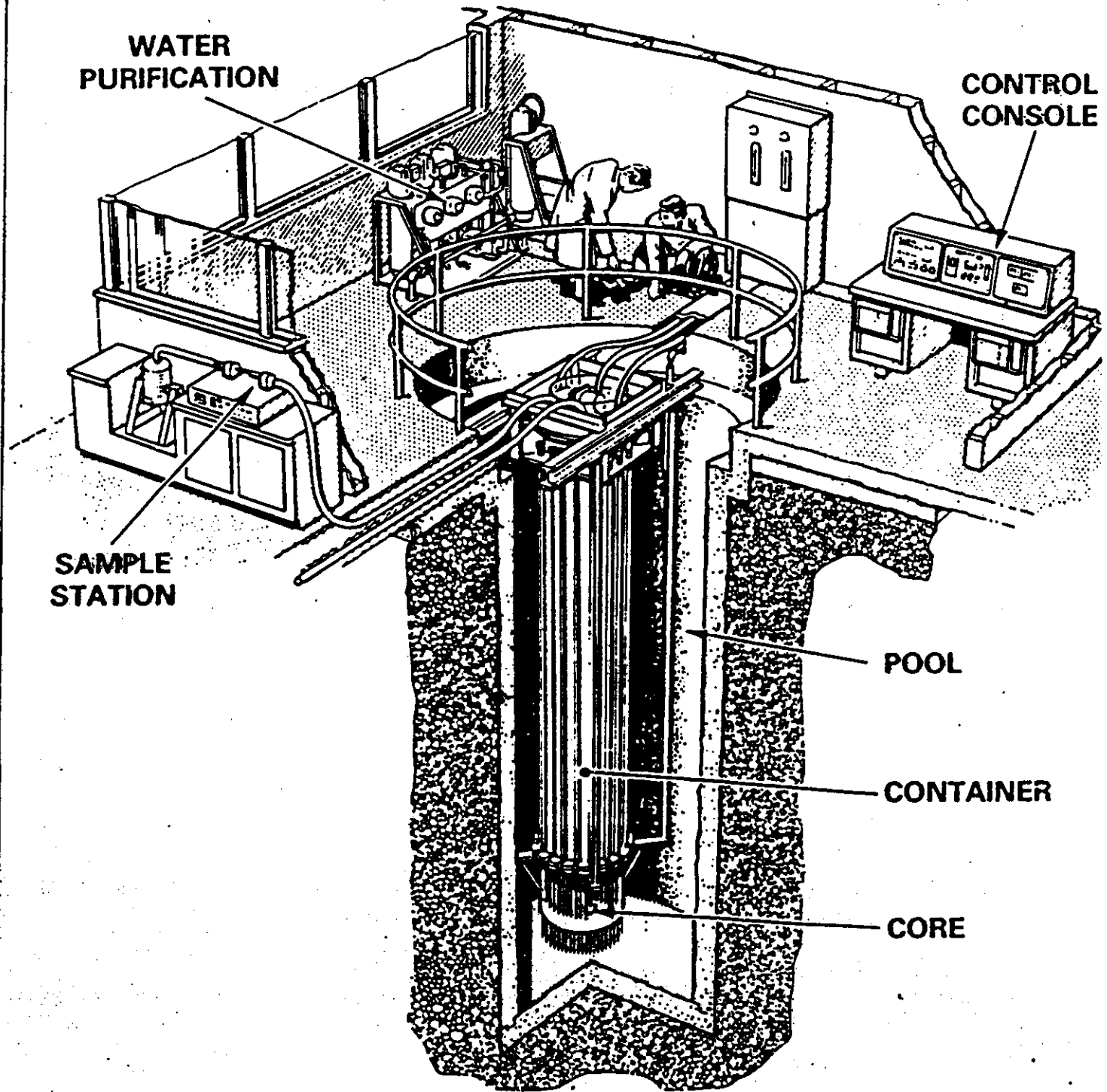


Figure 1: Typical SLOWPOKE-2 Reactor Installation

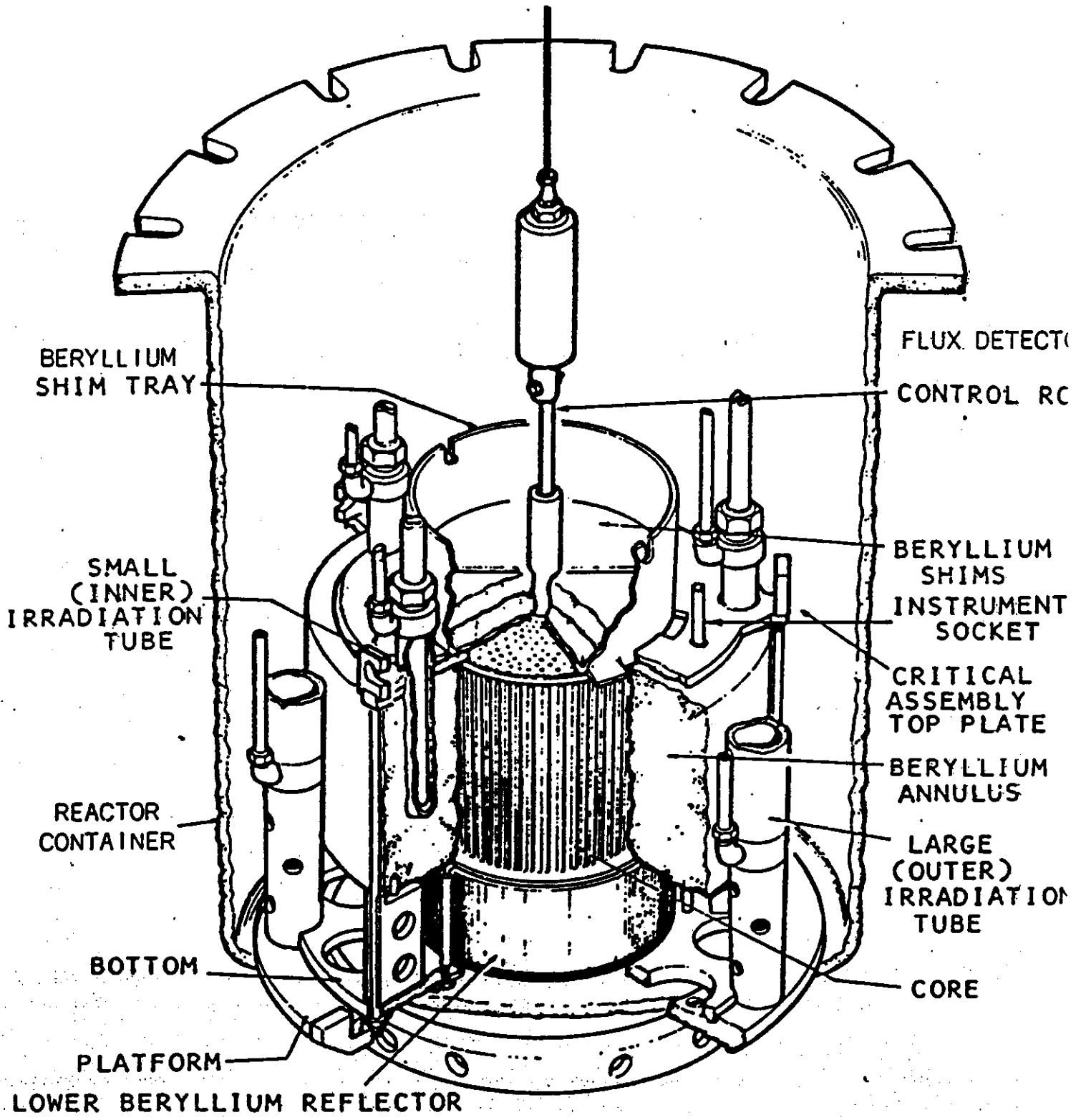
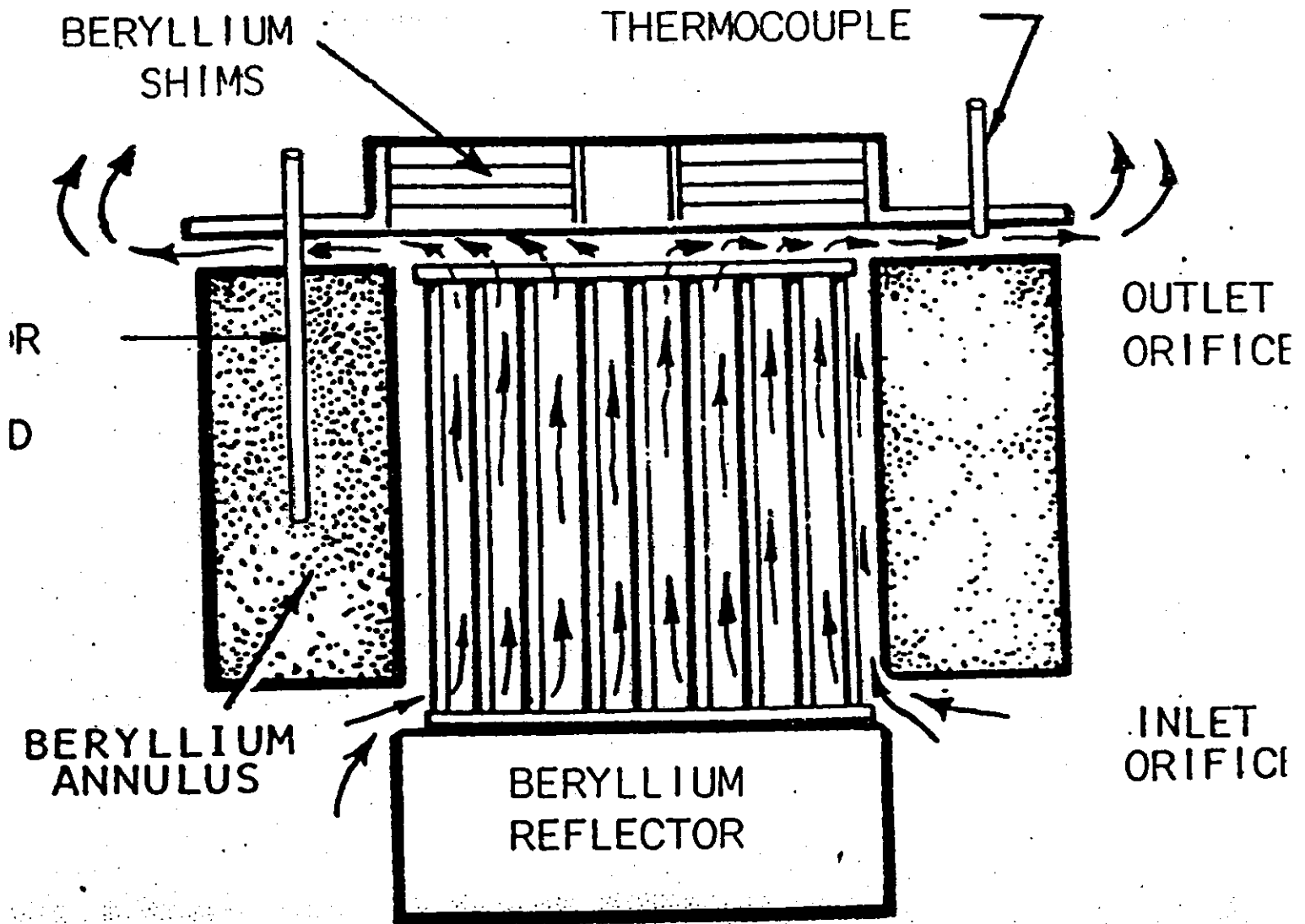


Figure 2: Core, Reflectors and Irradiation Tubes in Lower Section of Reactor Container

4.1d



SLOWPOKE REACTOR - THE CORE

4.1d

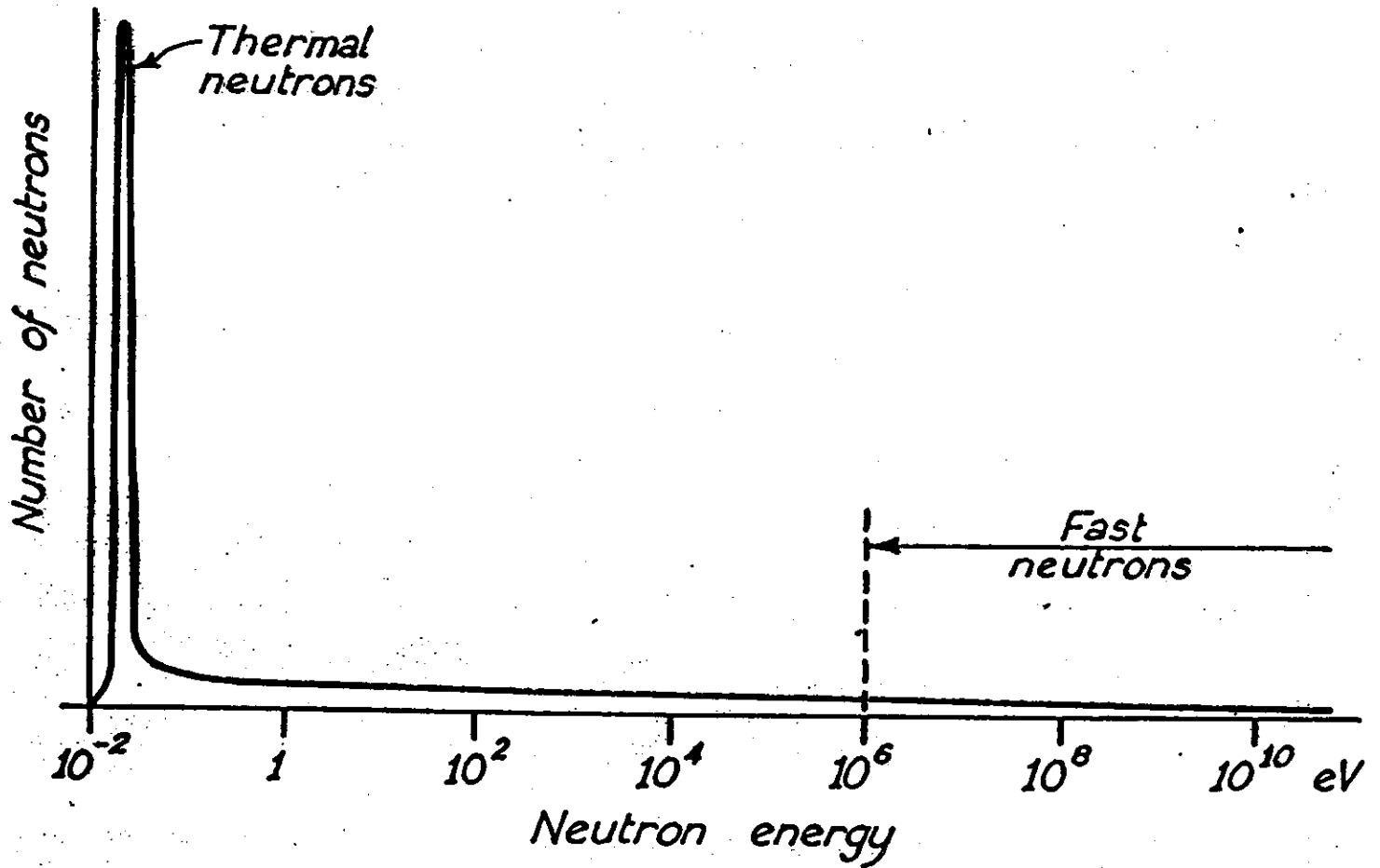
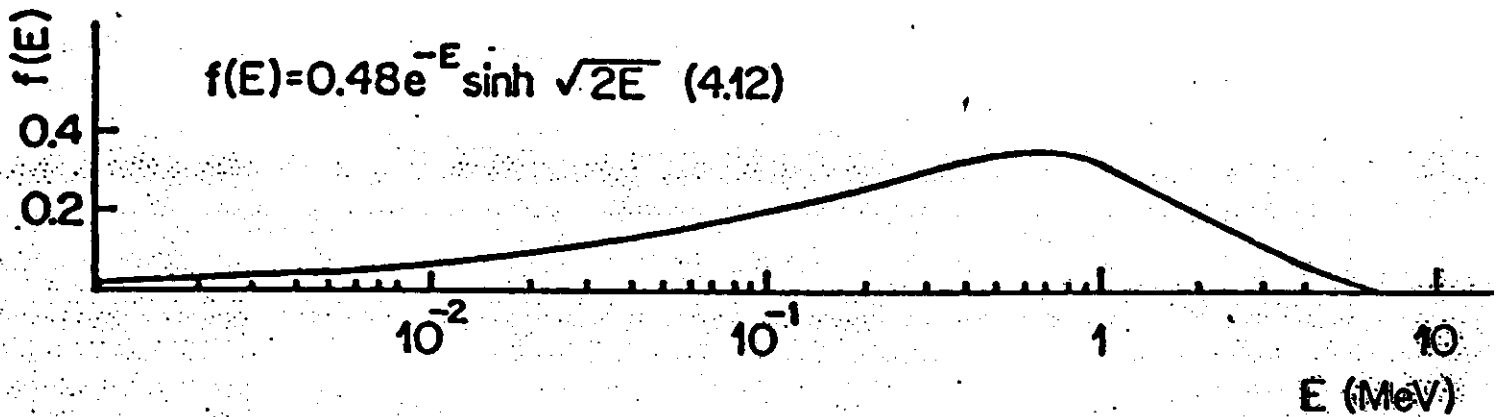
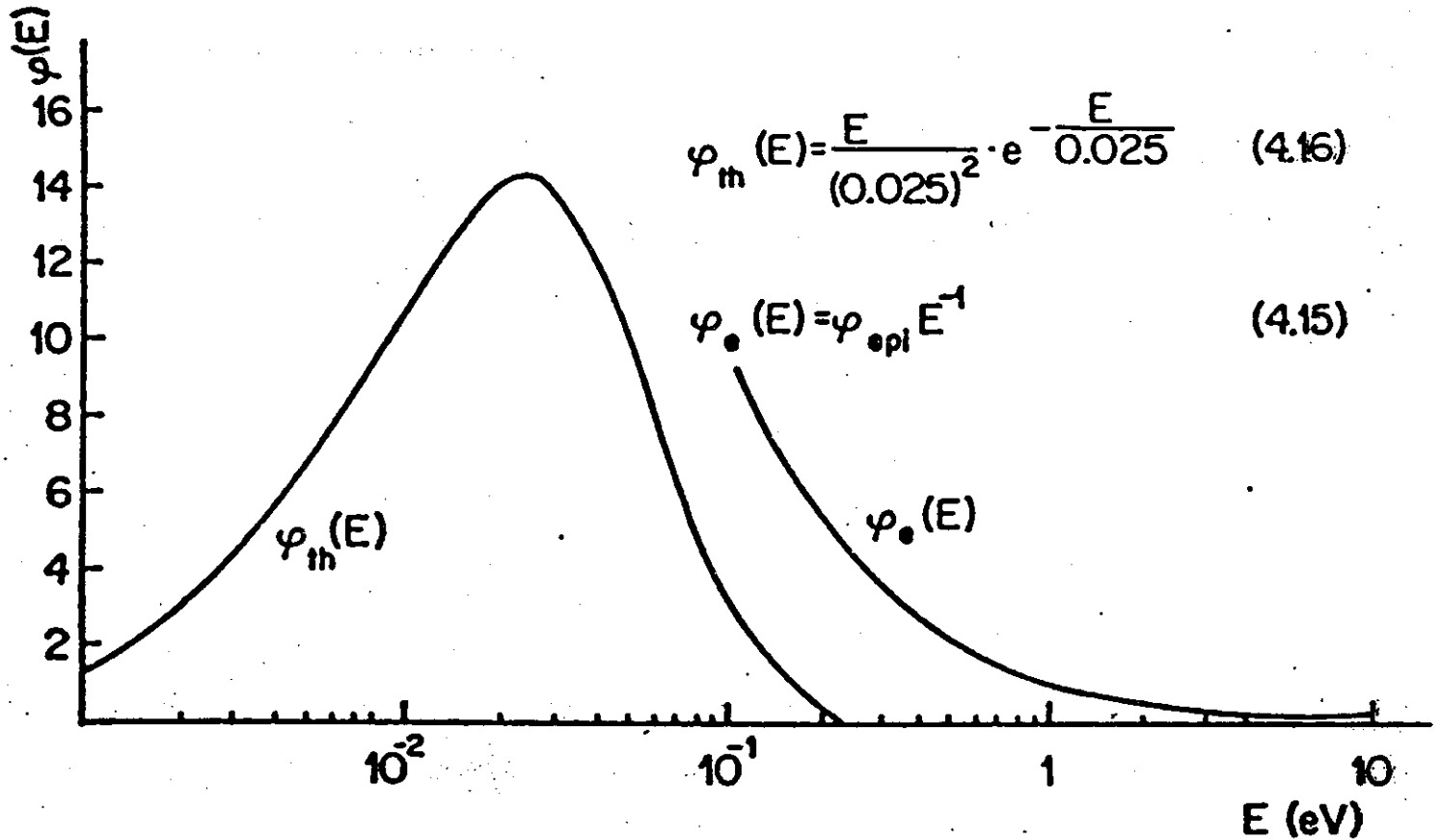


FIG. 3.4. Distribution of neutron energies in a reactor.

4.1d



4.1.d REACTOR NEUTRON SPECTRUM

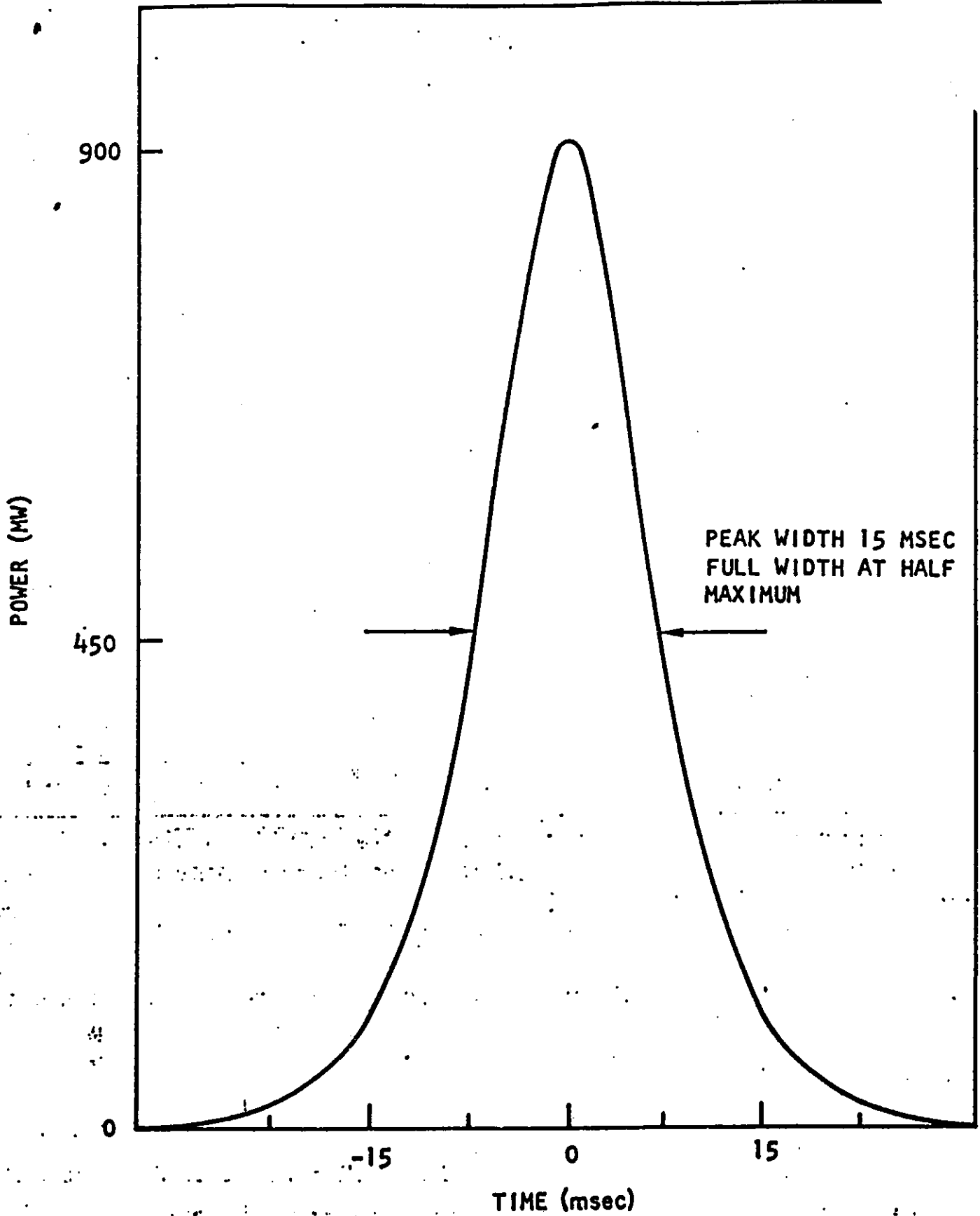


Figure 7.25 The shape of a reactor power pulse reaching a peak power of 900 MW. [From H. P. Yule and V. P. Guinn, Enhancement

Neutrons

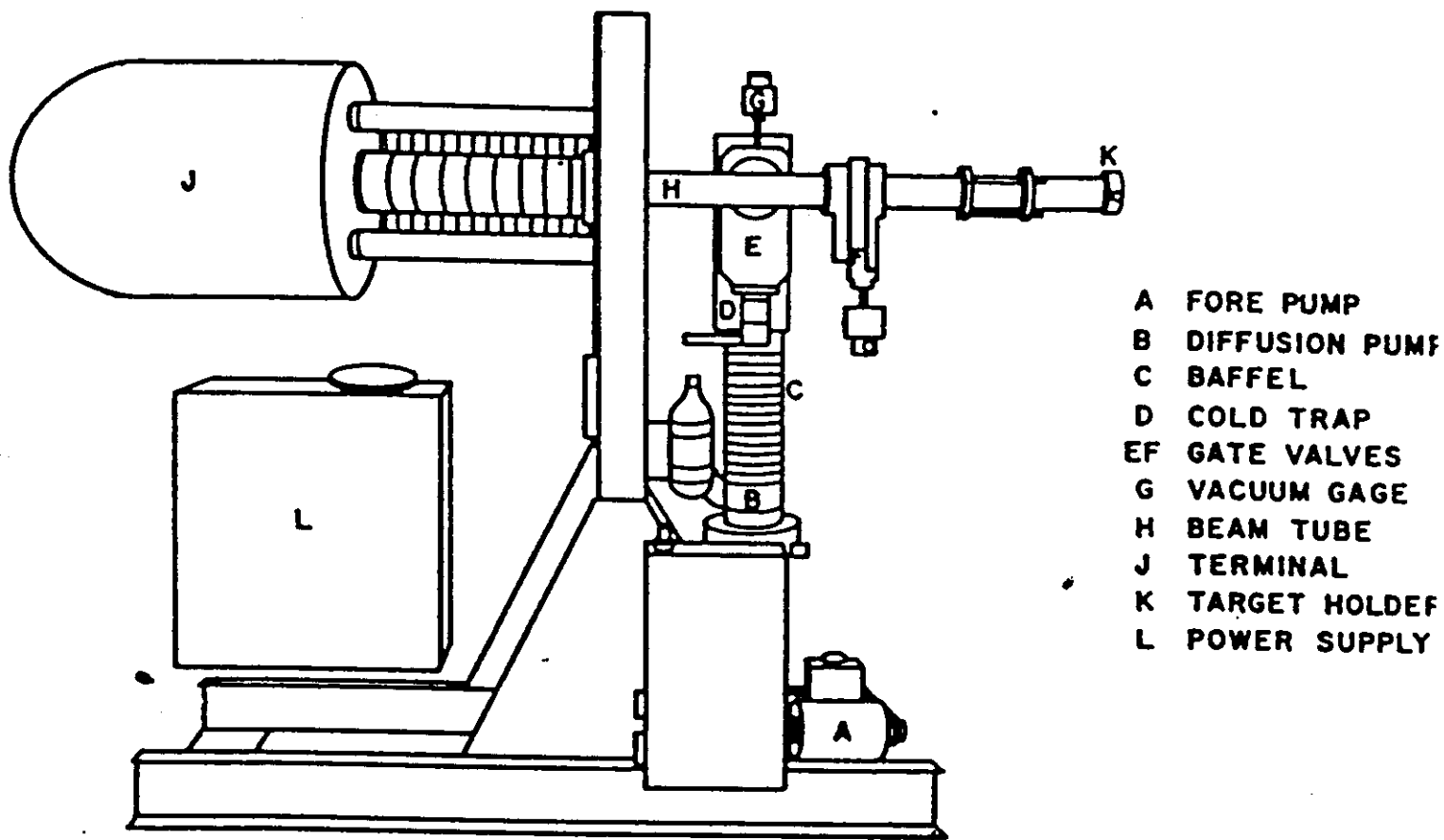
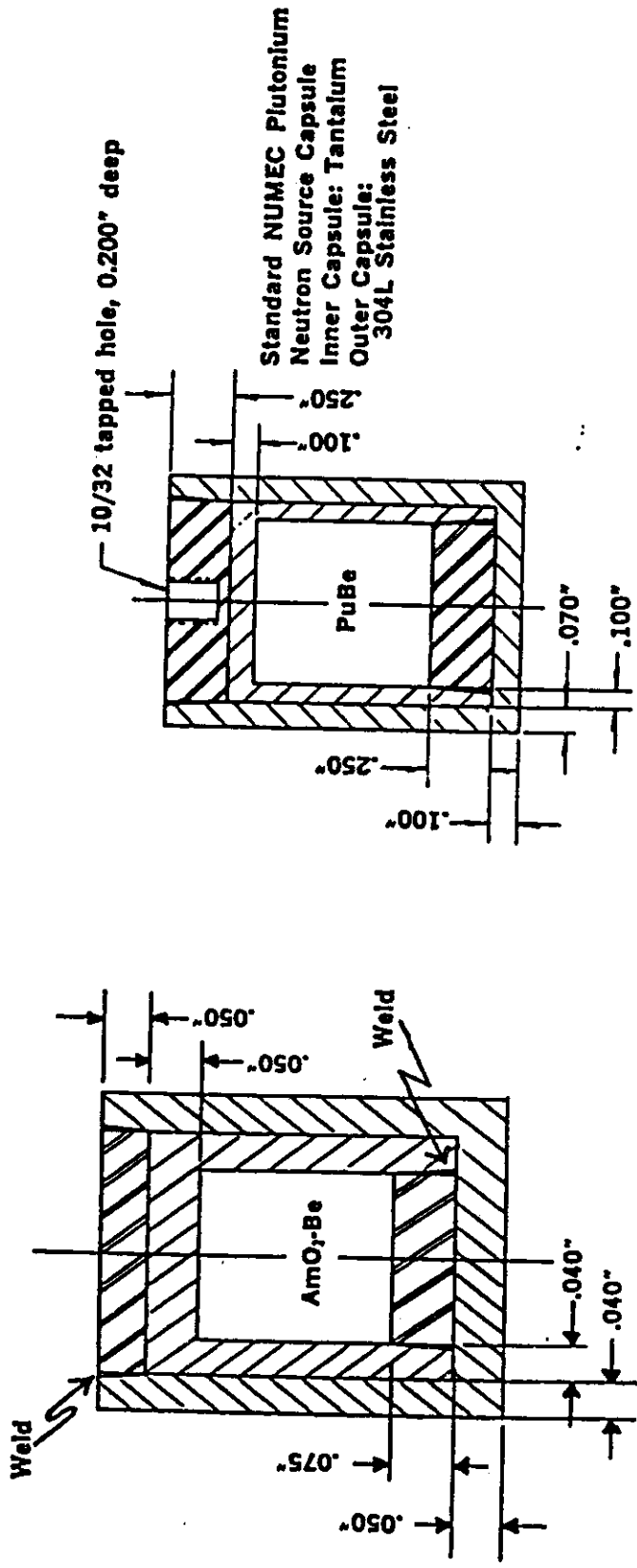


Figure 3.3 A schematic diagram of a neutron generator. [From W. W. Meinke and R. V. Shideler, Activation Analysis: New Generators and Techniques Make It Routine, *Nucleoni* 20, No. 3, 60-65 (1962).]

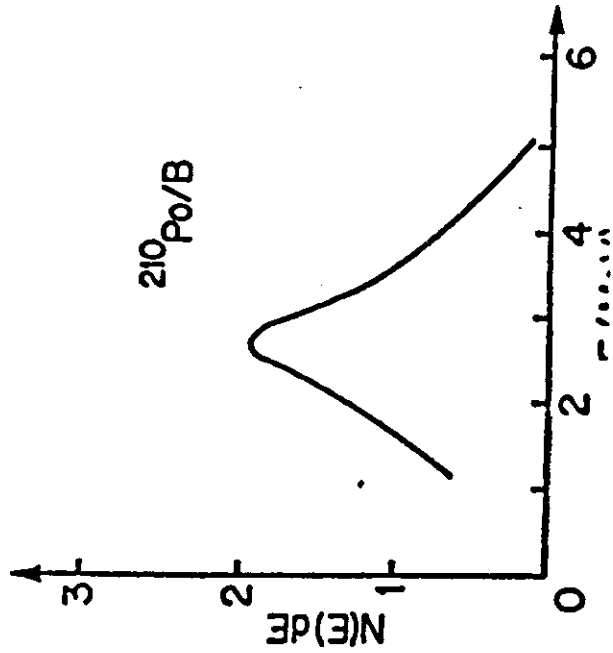
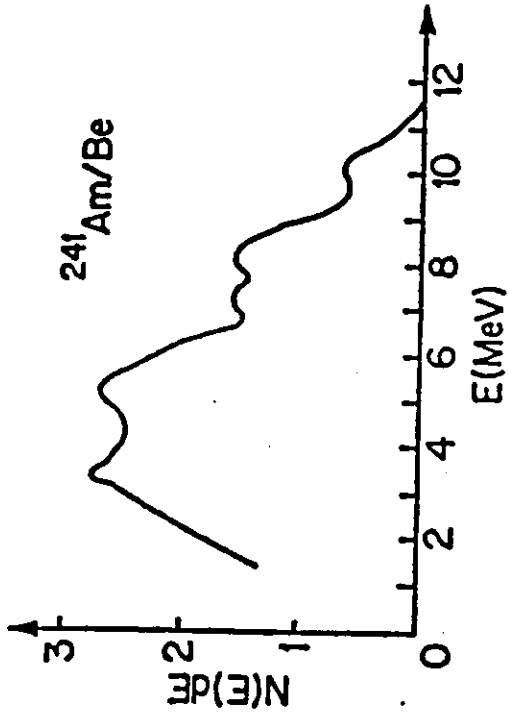
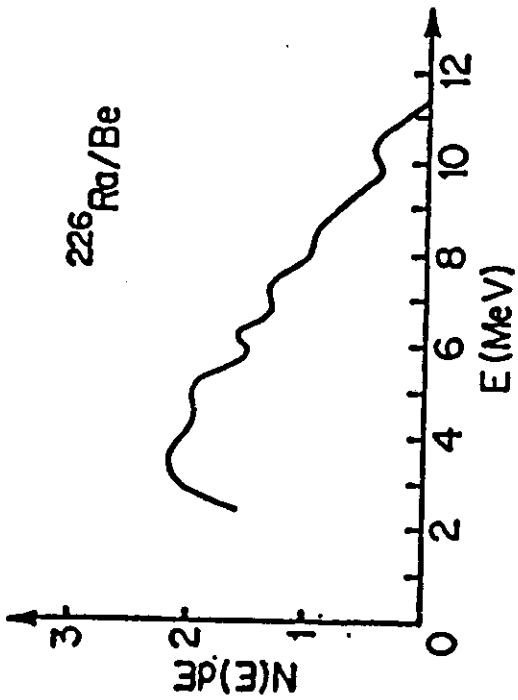
4.3



Capsule Material: Type 304L stainless steel

Figure 3.1 Commercially available encapsulated sources of Am- α -Be and Pu- α -Be neutrons yield neutron outputs of about 2.1×10^6 and 1.8×10^6 neutrons/sec-curie, respectively. (Courtesy of the Nuclear Materials and Equipment Corporation.)

4.3



4.5 Neutron spectra from neutron sources

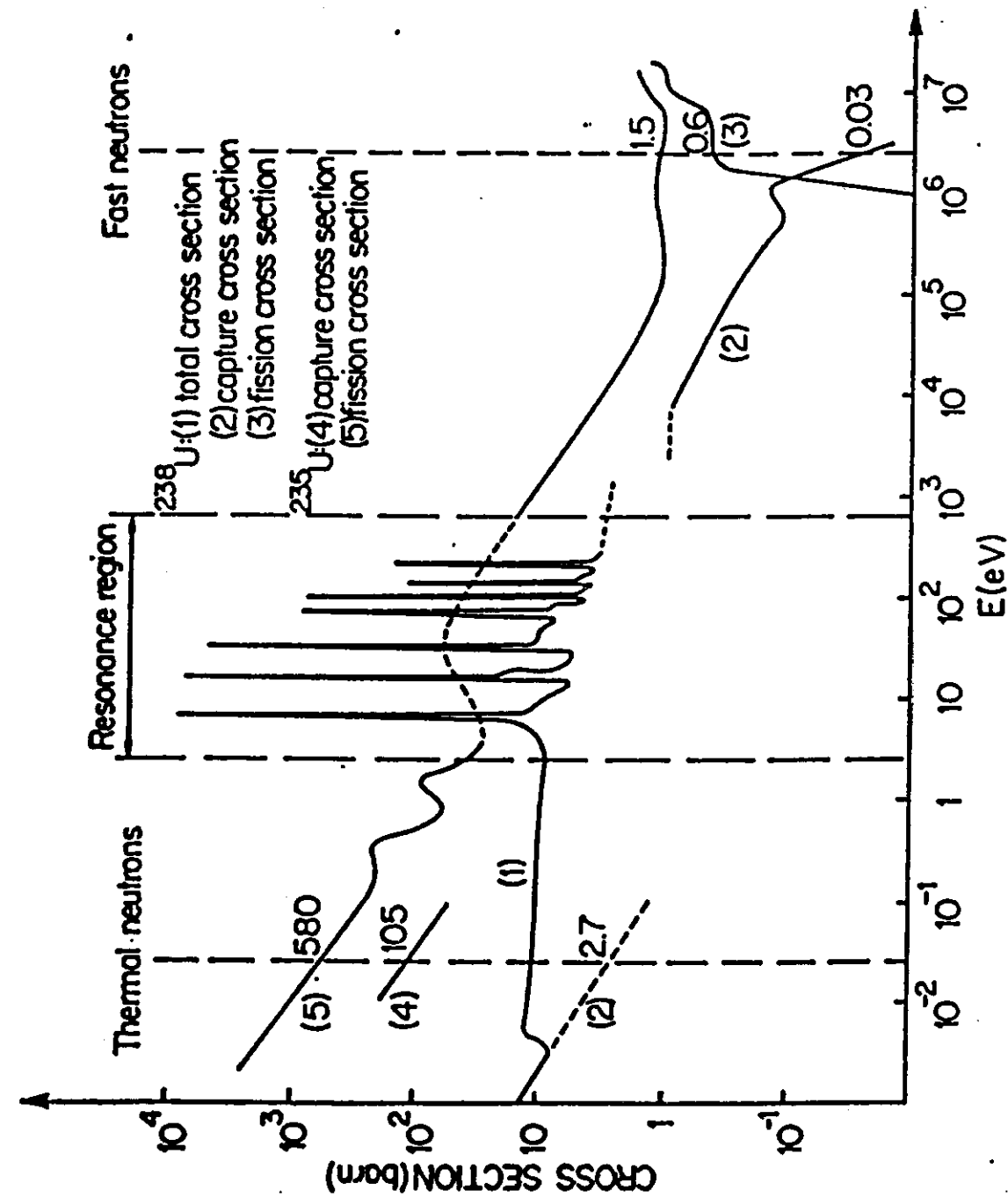


Fig. 4.4. Neutron capture and fission cross section of ^{235}U and ^{238}U (12).

4.13