

Figure 2.1

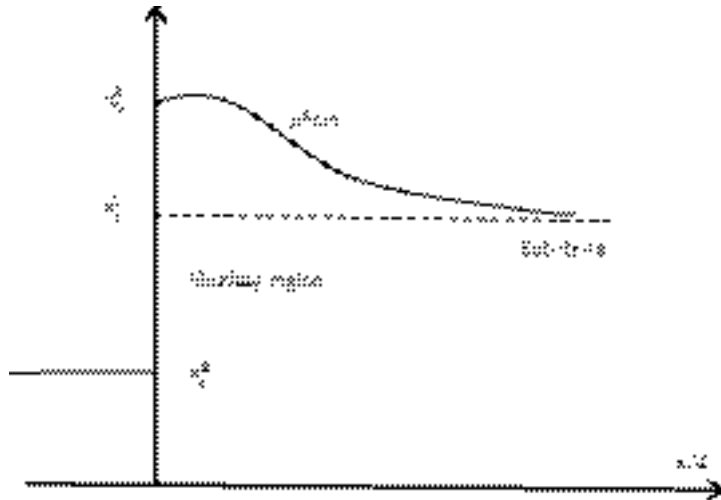


Figure 2.2

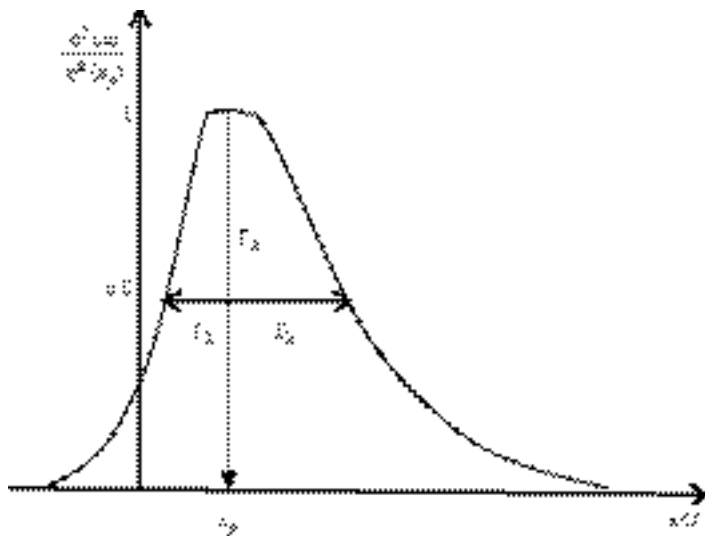


Figure 2.3

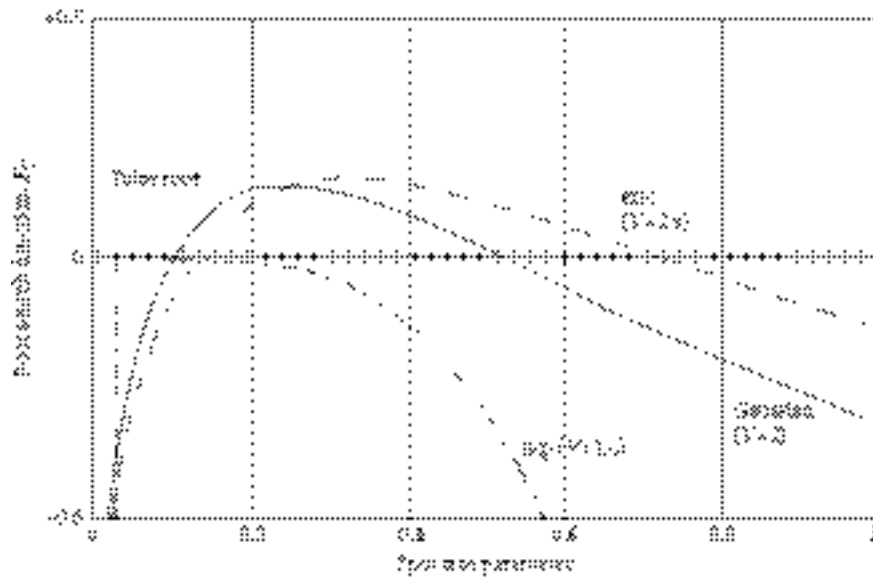


Figure 2.5

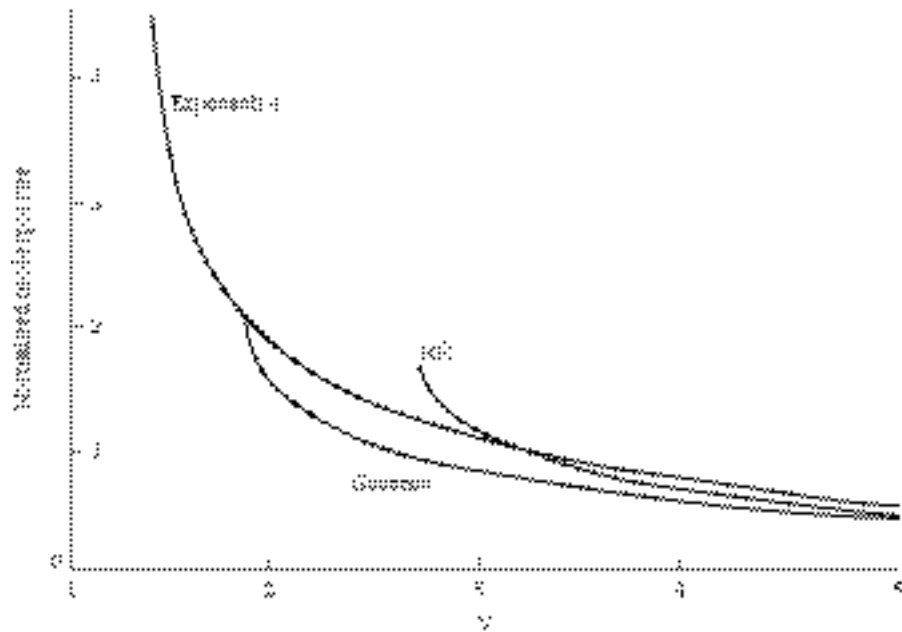


Figure 2.4

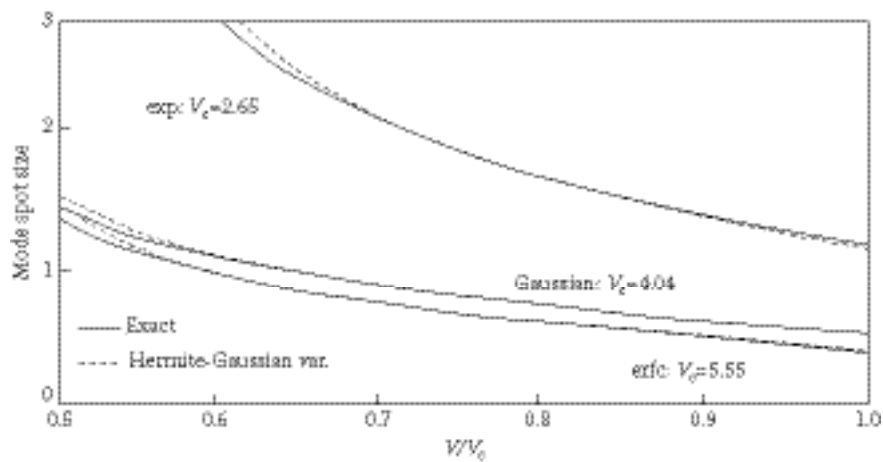


Figure 2.7

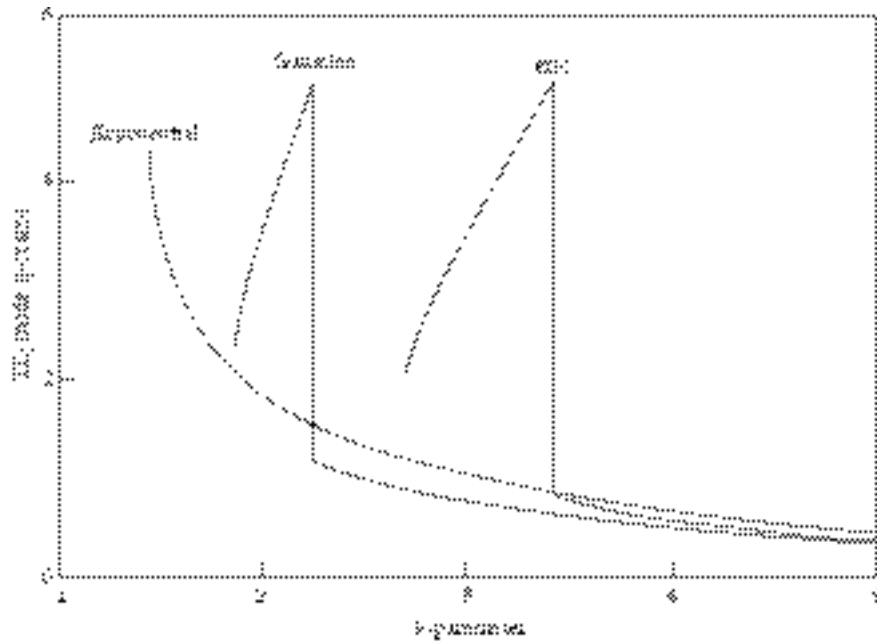


Figure 2.6

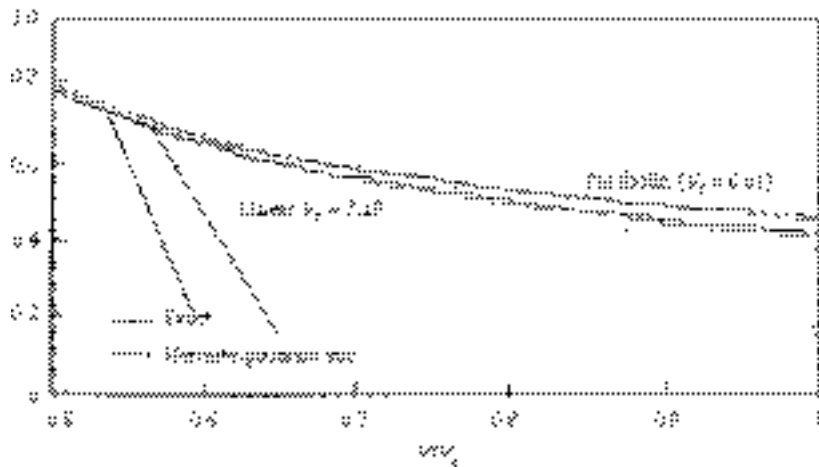


Figure 2.8

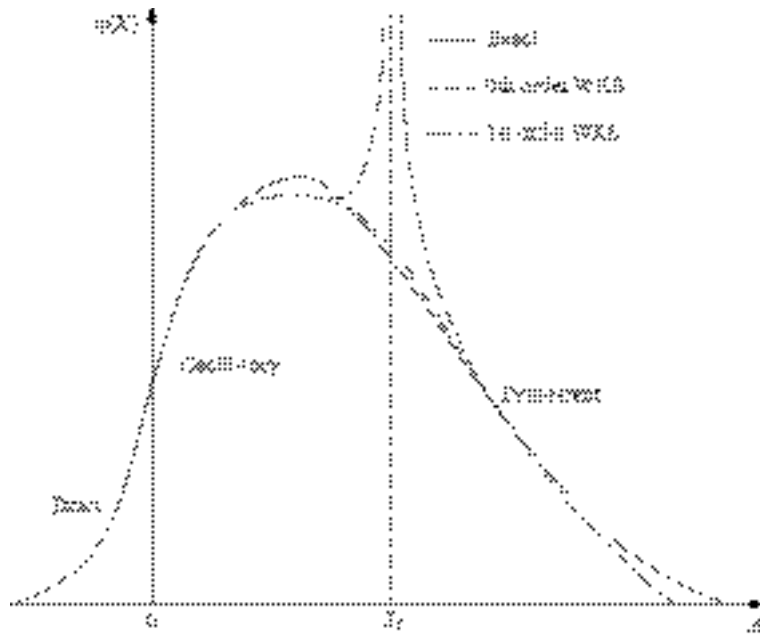


Figure 2.9

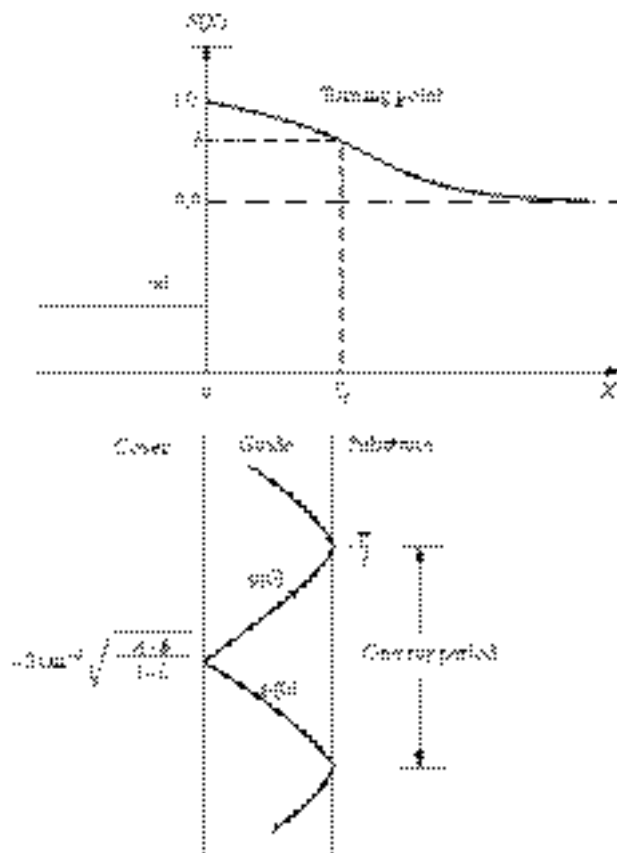


Figure 2.10

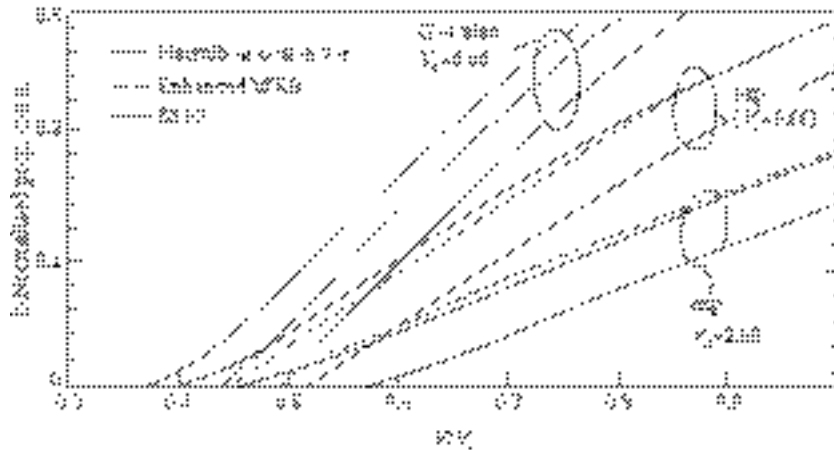


Figure 2.11

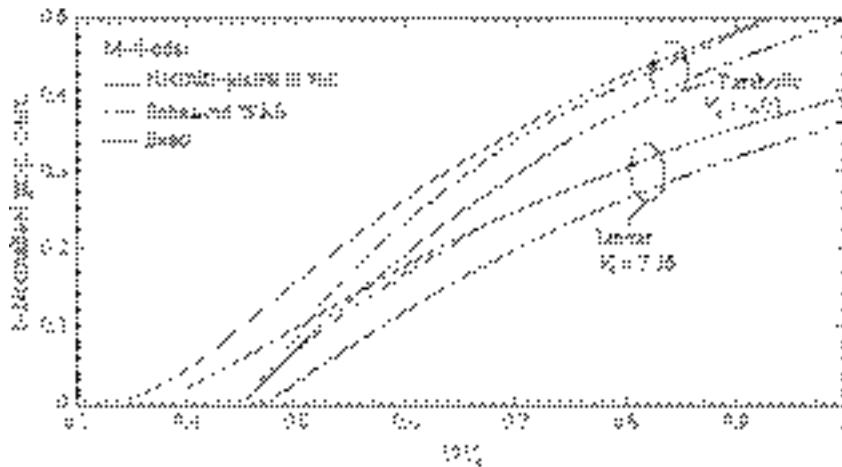


Figure 2.12

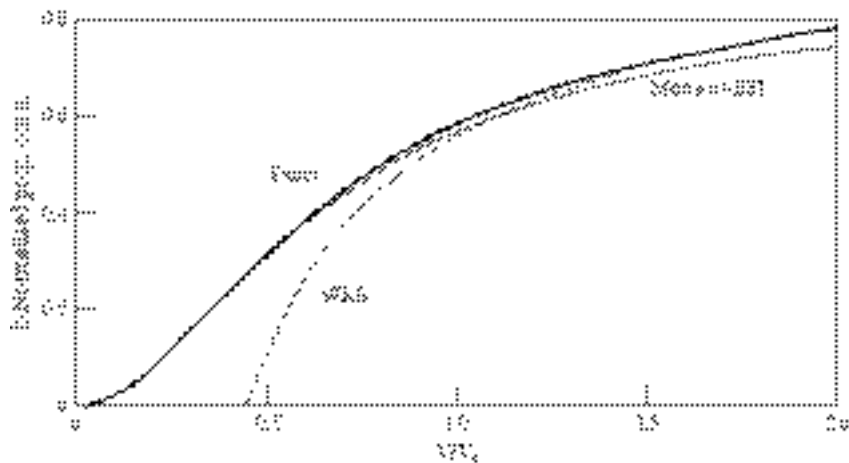


Figure 2.14

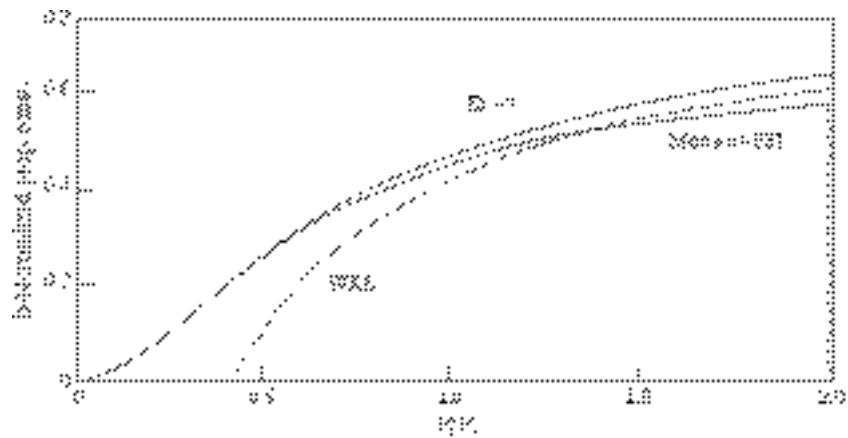


Figure 2.13

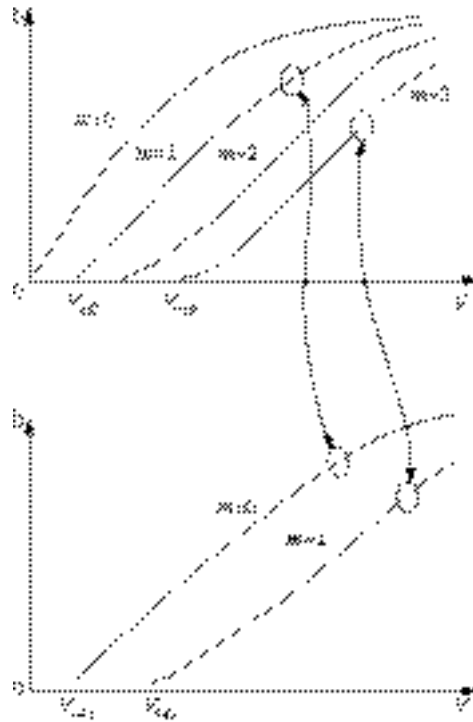


Figure 2.18

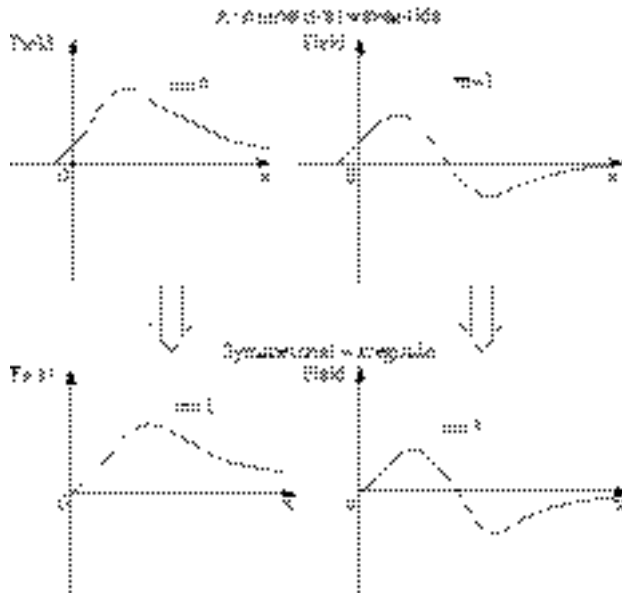


Figure 2.17

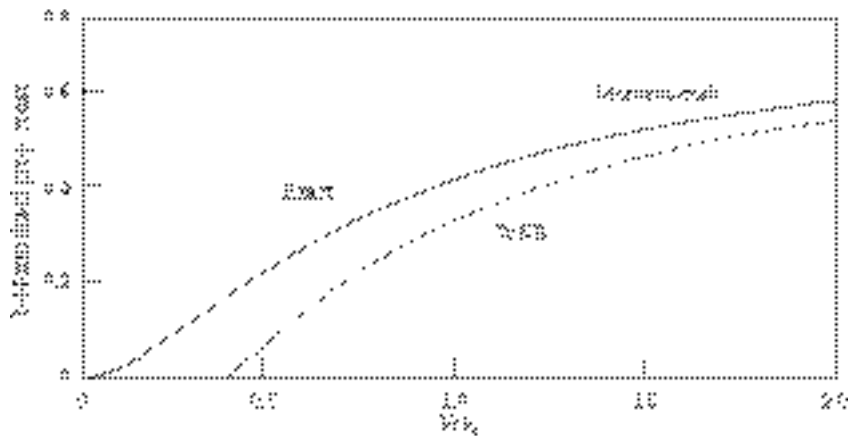


Figure 2.16

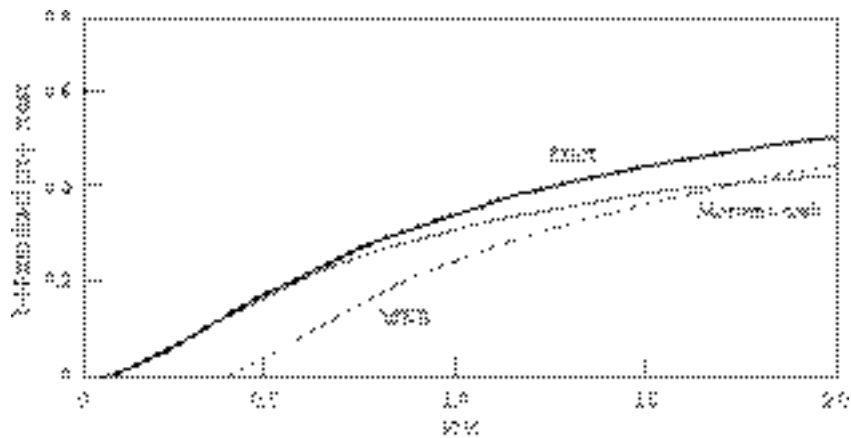


Figure 2.15

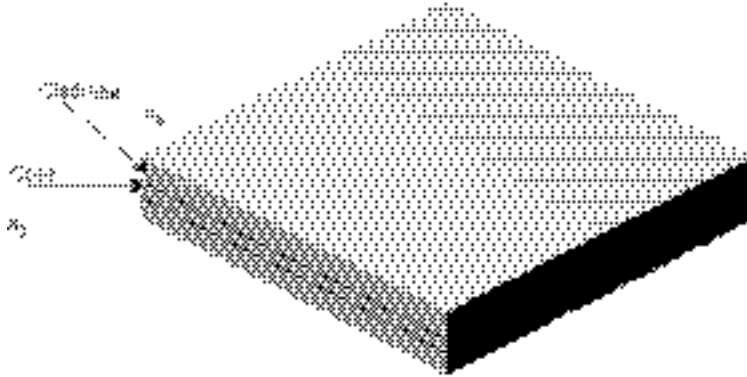


Figure 2.19

Cross section of a slab optical waveguide. The optical waveguide is assumed to be confined in the vertical direction x and extended infinitely in the lateral direction y . Lightwaves are guided and propagating along the z direction.

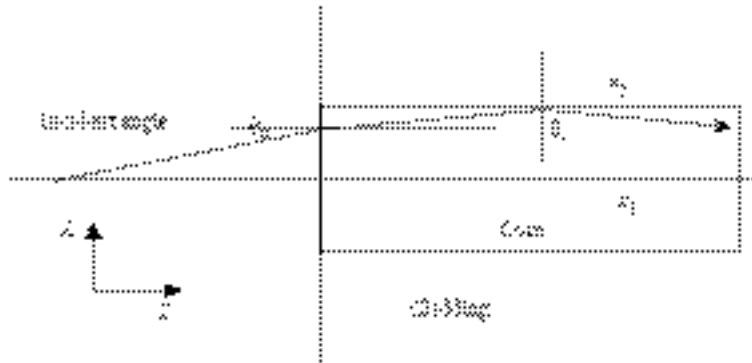


Figure 2.20

Numerical aperture of a dielectric waveguide. Lightwaves are approximated as light rays. This is true for the case when several lightwaves propagate in the wave guide. Light rays entering the waveguide interface are refracted and then totally

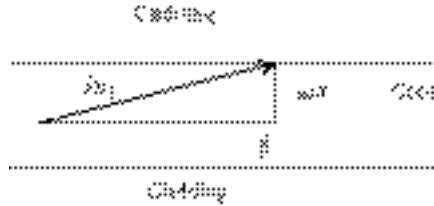


Figure 2.21

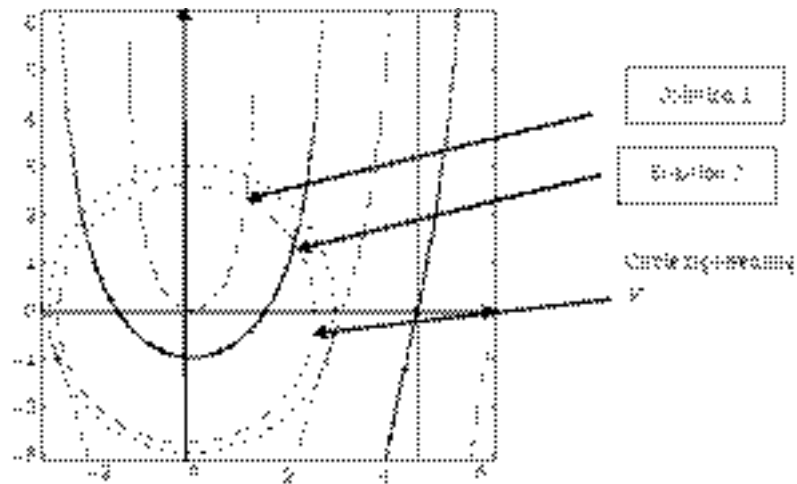


Figure 2.22

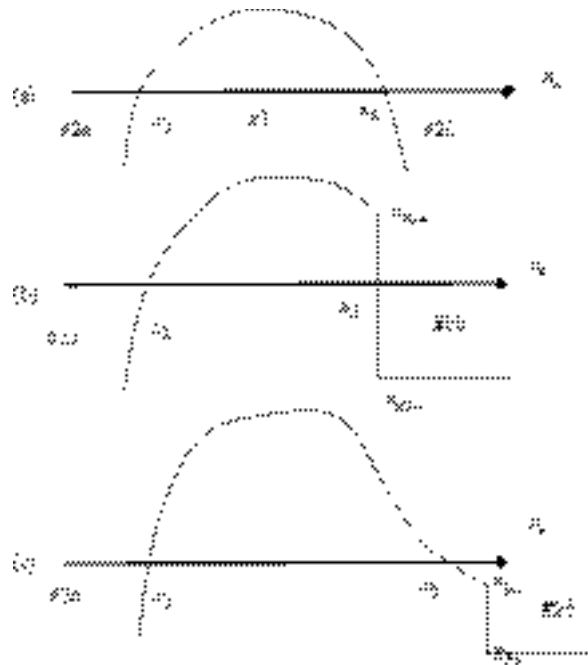


Figure 2.23

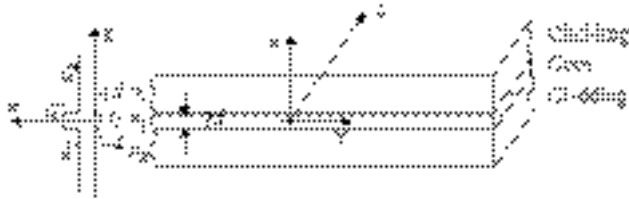


Figure 2.24

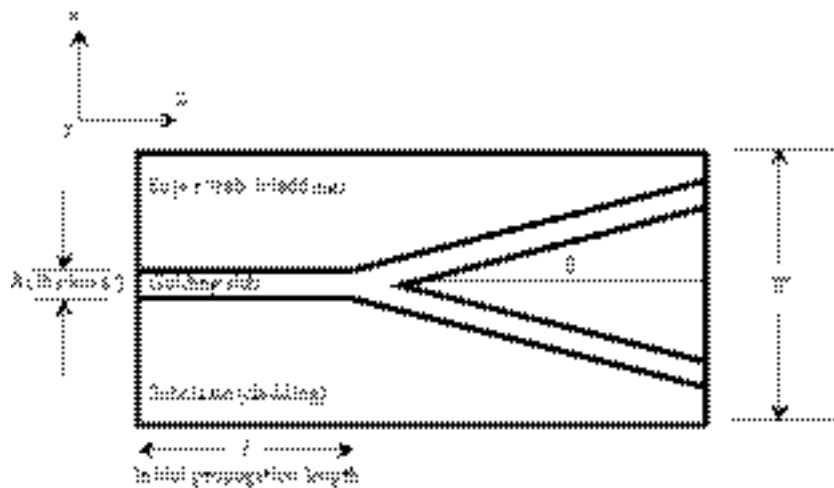


Figure 2.27

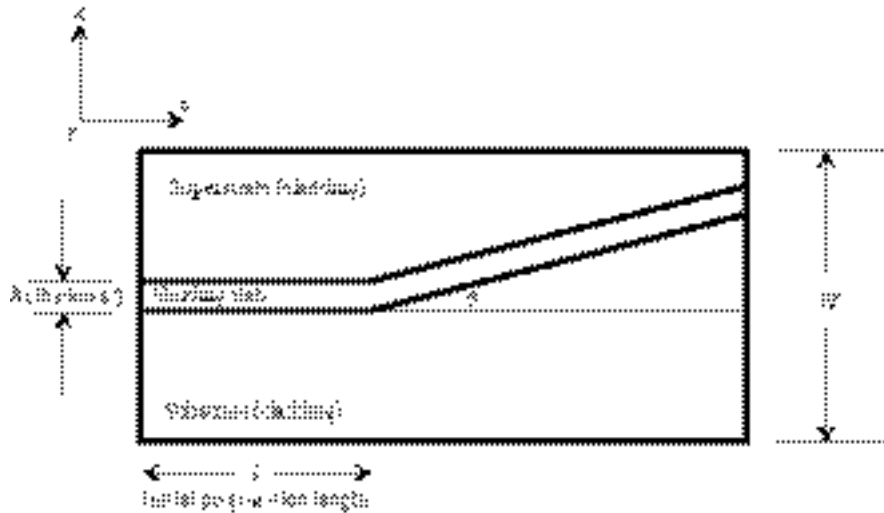


Figure 2.26

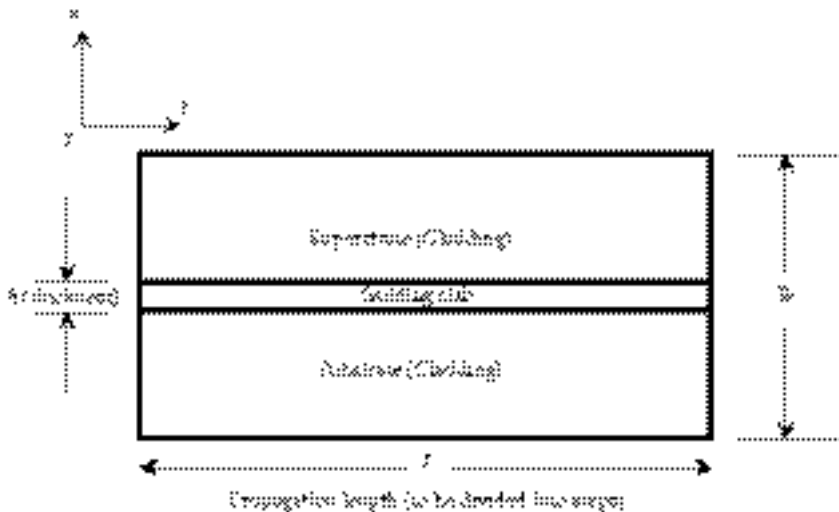


Figure 2.25

Side view of a slab optical waveguide in a straight optical device structure. h is the waveguide thickness, W is the total width of the structure in the transverse plane to be specified for numerical simulation, L is the total length of the device. W is to be divided into several equi-spacing layers for numerical simulation. The length L along the propagation direction is also spitted into several steps for propagation from one plane to the other and so on.

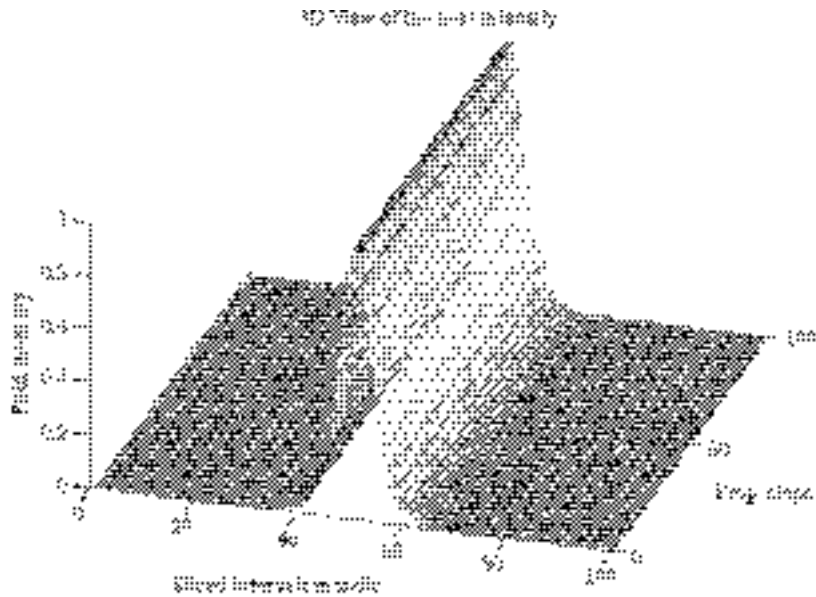


Figure 2.28