c-Some fibers have very small diameter core that they can carry only one mode which travels as a straight line at the center of the core. These fibers are single mode fibers.(3)

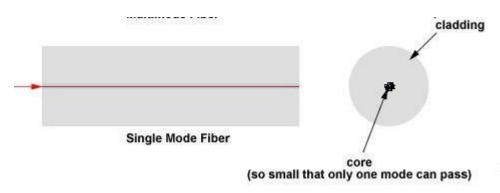


Figure (3)

d-Multilayer step-index

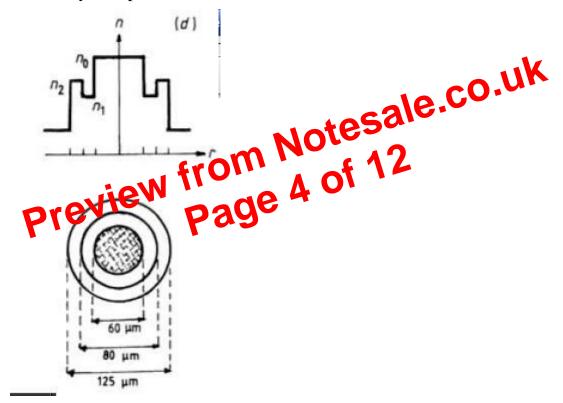


Figure (4)

Graded index:



Figure (8)

2-interference microscope:

There are many micro copes were developed using the two beam interference to the Mach Zehr der interferometer, the Nomaraski interference microscope, the Interphako interference microscope and Baker Dyson ,Leitz and Zeiss-Limmik interference microscope.

In this research we talk about Pluta polarized interference microscope