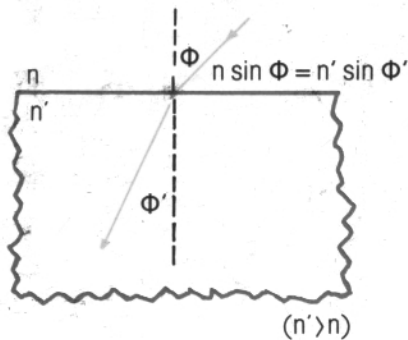
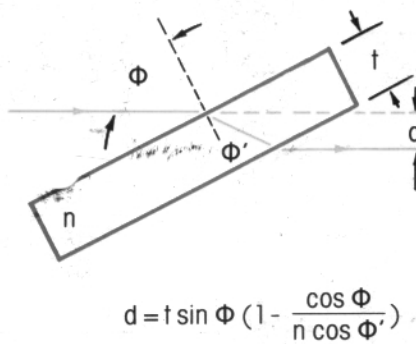


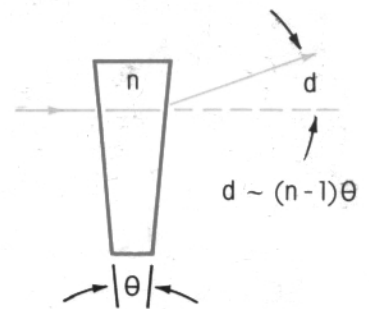
SNELL'S LAW



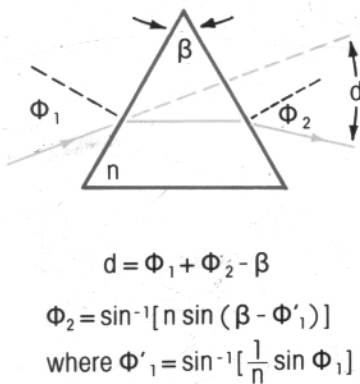
DISPLACEMENT THROUGH PARALLEL PLATE



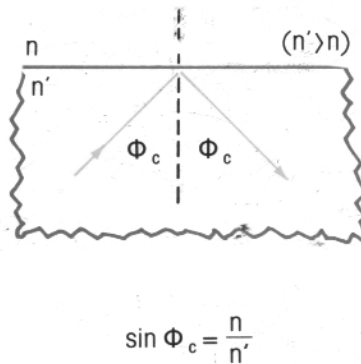
DEVIATION THROUGH SMALL WEDGE



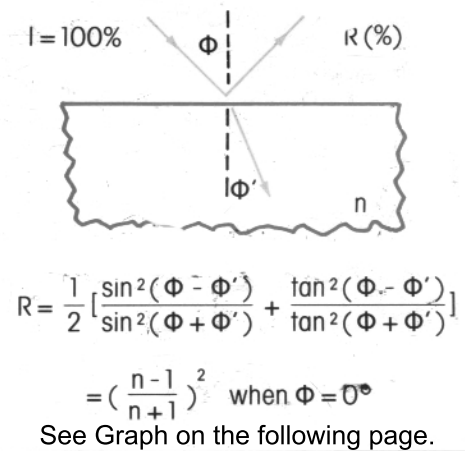
ANGULAR DISPLACEMENT THROUGH A PRISM



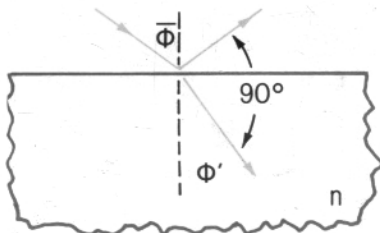
CRITICAL ANGLE FOR TOTAL INTERNAL REFLECTION



TOTAL REFLECTANCE



BREWSTER'S ANGLE



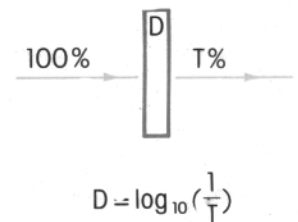
More relevant in the Wave Unit

I don't think these guys would mind a bit of free advertising!



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NEUTRAL FILTERS: DENSITY vs TRANSMITTANCE



$$T = (\log^{-1} D)^{-1} = (10^D)^{-1}$$

More relevant in the Color Unit!

PLANE OF INCIDENCE is the Plane containing the Rays of Light More relevant in the Wave Unit!

TRANSMITTANCE OF PLANE - PARALLEL PLATE, INDEX = n

$$T = \frac{2n}{n^2 + 1} \text{ assuming zero absorption}$$

$$T = \frac{e^{-\alpha t} (1 - R)^2}{1 - R^2 e^{-2\alpha t}} \text{ includes both absorptive and reflective losses}$$

t = Thickness
α = Absorption Coefficient

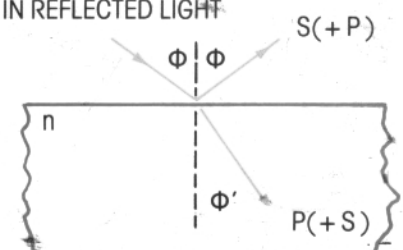
COMPONENTS OF POLARIZATION IN REFLECTED LIGHT

P-POLARIZATION...Plane of Polarization
PARALLEL to Plane of Incidence

S-POLARIZATION...Plane of Polarization
PERPENDICULAR to Plane of Incidence

For example, at 45°, transmittance
of a zero-absorption thin plate is:

n =	1.517	1.7	4.0
T =	0.825	0.757	0.348



See Graph on the following page.
S = small dashes, P = large dashes

$$R_s = \frac{\sin^2(\Phi - \Phi')}{\sin^2(\Phi + \Phi')} \quad R_p = \frac{\tan^2(\Phi - \Phi')}{\tan^2(\Phi + \Phi')}$$