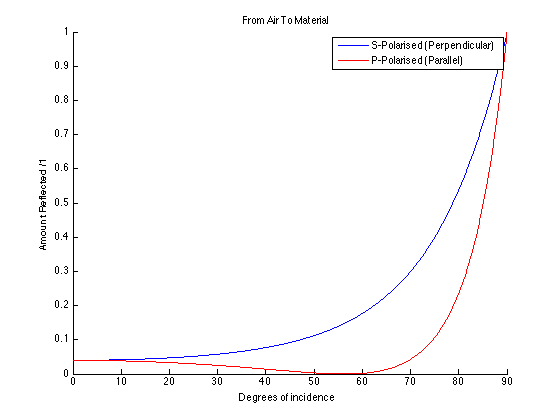
# Advanced Graphics

# Coursework 2

## Part 1 – Fresnel Reflectance

### Air To Material

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η1 = 1, η2= 1.5

From the graph we can obtain the reflectance of both components at normal incidence (when θ = 0).

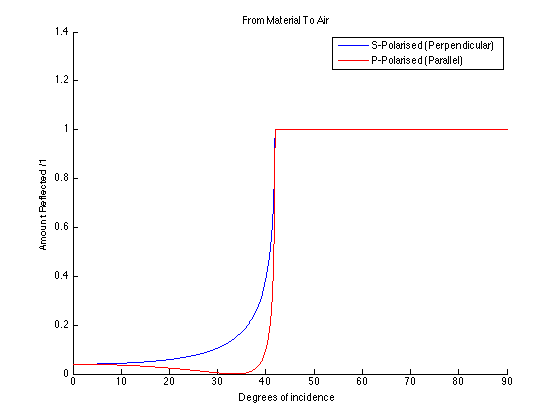
|  |  |
| --- | --- |
| S-Polarised: | 0.04 |
| P-Polarised: | 0.04 |

The critical angle of total internal reflection is at 90 degrees.

The Brewster’s angle is the angle of incidence whereby light with a certain polarization is perfectly transmitted with no transmission.

In the diagram above, the Brewster’s angle is 56.3 degrees.

### Material To Air



η1 = 1.5, η2= 1

From the graph we can obtain the reflectance of both components at normal incidence (when θ = 0).

|  |  |
| --- | --- |
| S-Polarised: | 0.04 |
| P-Polarised: | 0.04 |

The critical angle of total internal reflection is at 41.9 degrees.

The Brewster’s angle is the angle of incidence whereby light with a certain polarization is perfectly transmitted with no transmission.

In the diagram above, the Brewster’s angle is 33.7 degrees.

## Part 2