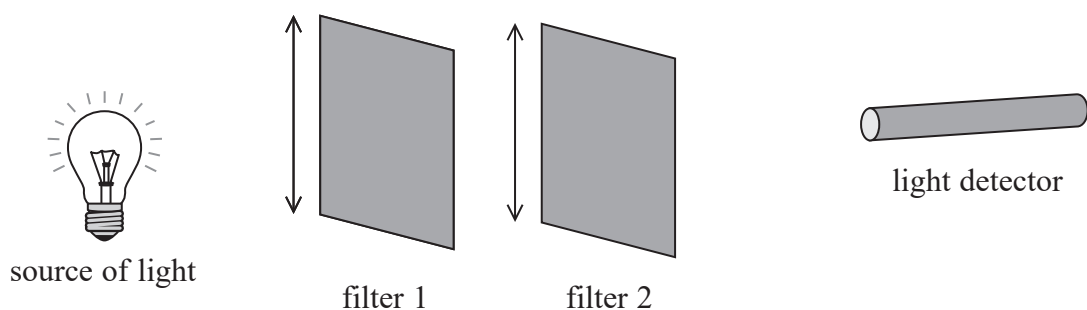


15 The diagram shows apparatus used to investigate polarising filters.



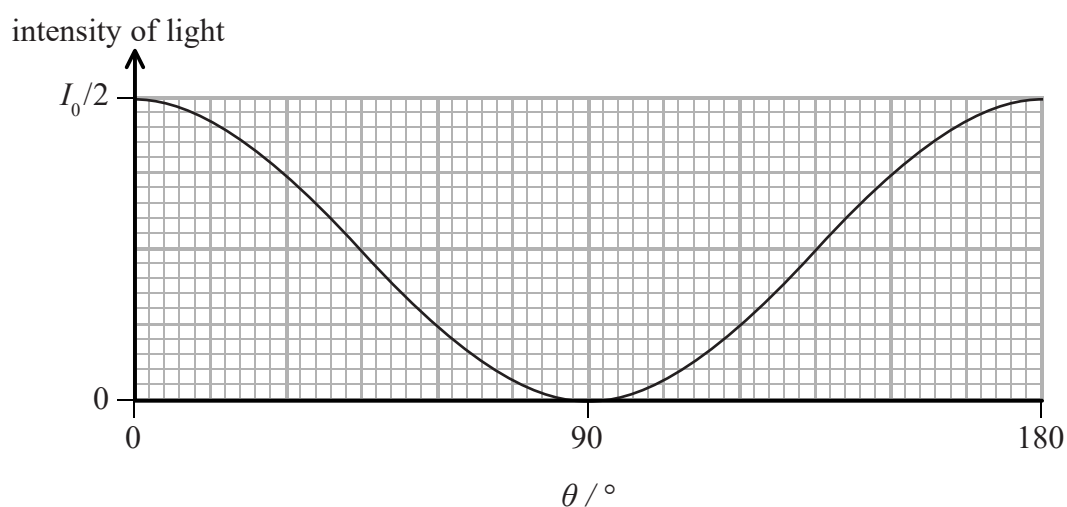
The arrows show the orientation of the plane of polarisation of the filters.

Light is incident on filter 1 and the intensity of the light is measured, using the light detector, when the filters are in the positions shown.

Filter 2 is then rotated and the intensity of light is measured for different angles of rotation θ .

The intensity of light measured with no filters present is I_0 .

The results are shown on the graph.



Explain the effect of the filters on the intensity of light and why the intensity varies as shown.

(6)