

OCR B Physics A Level

3.1.2 - Polarisation

Flashcards



What type of waves make up the electromagnetic spectrum?



What type of waves make up the electromagnetic spectrum?

Transverse.



What can be said about the speed of electromagnetic waves in a vacuum?



What can be said about the speed of electromagnetic waves in a vacuum?

They all travel at the same speed of
 $3 \times 10^8 \text{ ms}^{-1}$.



Describe the structure of electromagnetic waves.



Describe the construction of electromagnetic waves.

An alternating magnetic field that oscillates perpendicular to an alternating electric field. Both of which oscillate perpendicular to the direction of wave travel.



What is polarisation?



What is polarisation?

Polarisation is when the oscillations of a wave are limited to a single plane.



Explain what is observed when two polarising filters are rotated relative to each other.



Explain what is observed when two polarising filters are rotated relative to each other.

- When the two filters are aligned, light is clearly seen through them.
- As one of the filters is rotated through 90 degrees, the light intensity decreases to zero as no light can pass through.

