فرق مدى والكتروني

Quiz (1)

Name : .....

Sec. : .....

1-The emissivity is equal to one (= 1) incase of .....,

less one (< 1) incase of .....

and equal to zero (= 0) incase of .....

2- By increasing the temperature of body , the wave length at maximum intensity shifts to ..... (higher – lower) wavelengths .

3- ..... is a hypothetical object which is a "perfect" absorber and a "perfect" emitter of radiation over all wavelengths.

4- Determine the spectral energy density of the emission at 200nm and 3000K, where $K = 1.38 \times 10^{-23}$ j/K , $c = 3 \times 10^{8}$ m/s and $h = 6.625 \times 10^{-34}$ j.s .

5- A disc has radius 50mm.The wavelengths corresponding to maximum intensity are 300 nm. Calculate the power radiated a disc. where $b = 0.29$ cm.K , $\varepsilon = 0.7$ and $\sigma = 5.6 \times 10^{-8}$.

فرق مدى إلكترونات

Quiz (2)

Q1: If the wavelength in air is 630 nm, what's the wavelength in glass which refractive index is equal 1.5?

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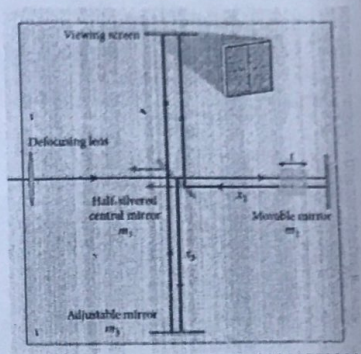
Q2: Michelson interferometer, if we placed a material with index of refraction n and thickness t in the path of the light traveling to the movable mirror m_2, as depicted in Figure, Drive the measurement of thickness relation.



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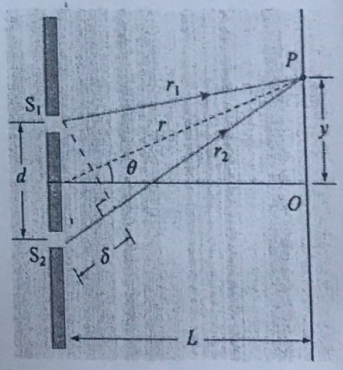
Q3: in the opposite figure , calculate the intensity of fringe at point P if the path difference is equal 2λ and the incident intensity is equal 2lux .



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Q4: White light, with a uniform intensity across the visible wavelength range of 400 to 690 nm, is perpendicularly incident on a water film, of index of refraction n_2 =1.33 and thickness L = 320 nm, that is suspended in air. At what wavelength λ is the light reflected by the film **brightest** to an observer?

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