

YFX1180

1. Formulate the Kirchhoff relationship between the emissivity and the absorptive capacity. Emissivity function for perfect black body.
2. Monochromatic light source emits 10 Watts of electromagnetic energy. How many photons does this source emit in one second if the wavelength of the electromagnetic wave is 5000 Å?
3. Calculate the **kinetic mass** and momentum for a photon with an wavelength of 5000 Å.