Blackbody Radiation

What is a balckbody

A blackbody is a material or object that absorbs any radiation that impacts it. any light coming from a true blackbody is emitted from the blackbody and is not a reflection of light from another source. the human eye is an example of a blackbody that does not emit light. The sun is the best example of a blackbody, as it produces all the light that we see it with.

If you look ta the spectrum of EM coming off a blackbody you see the distribution of emitted frequencies falls within the infra red to blue range. depending on the temperature of the object.

Thus light had to be known as quantized waves as opposed to simple waves so maller wavelength waves have hicher energy and the probability of cerating those higher energy waves is smaller.

Wiens law describes the max wavelength emitted from an ojbect depends on it's temperatuer

$$\lambda_{max} = \frac{2.9 \times 10^{-3} m \cdot K}{T}$$

λ_{max} = wavelength of maximum emissions in meters T = Temperature of object in kelvin

what color of emited light would hav the greatest intensity if the object is at 5275 K?