Blackbody Radiation

What is a blackbody

a blackbody is a material or object that absorbs all wavelengths of light , such that any radiation coming from a blackbody is being emitted by the blackbody, not a reflection of another source. pizza ovens or coal are almost blackbodies.

if you look at 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 smaller wavelength waves have higher energy, and the probability of creating those higher energy waves is smaller.

Wien's law describes the max wavelength emitted form an object depends on the temperature.

$$\lambda_{max} = \frac{2.90 \times 10^{-3} m \cdot K}{T}$$

λ_{max} = wavelength of maximum emissions in meters

T = Temperature of object in kelvin

What colour of emitted light would have he greatest intensity if the object is at 5275