

## 1.0 Light Sources / Production of Radiation

### 1.1 Incandescence

When an object is heated to a high temperature, the atoms within the material become excited by the many interactions between them and energy is radiated in a continuous spectrum. The exact nature of the radiation produced by an idealised radiator,

known as a black body, was studied by Max Planck at the end of the 19<sup>th</sup> century.

The values of the spectral radiant exitance are plotted for different temperatures in Figure 29.

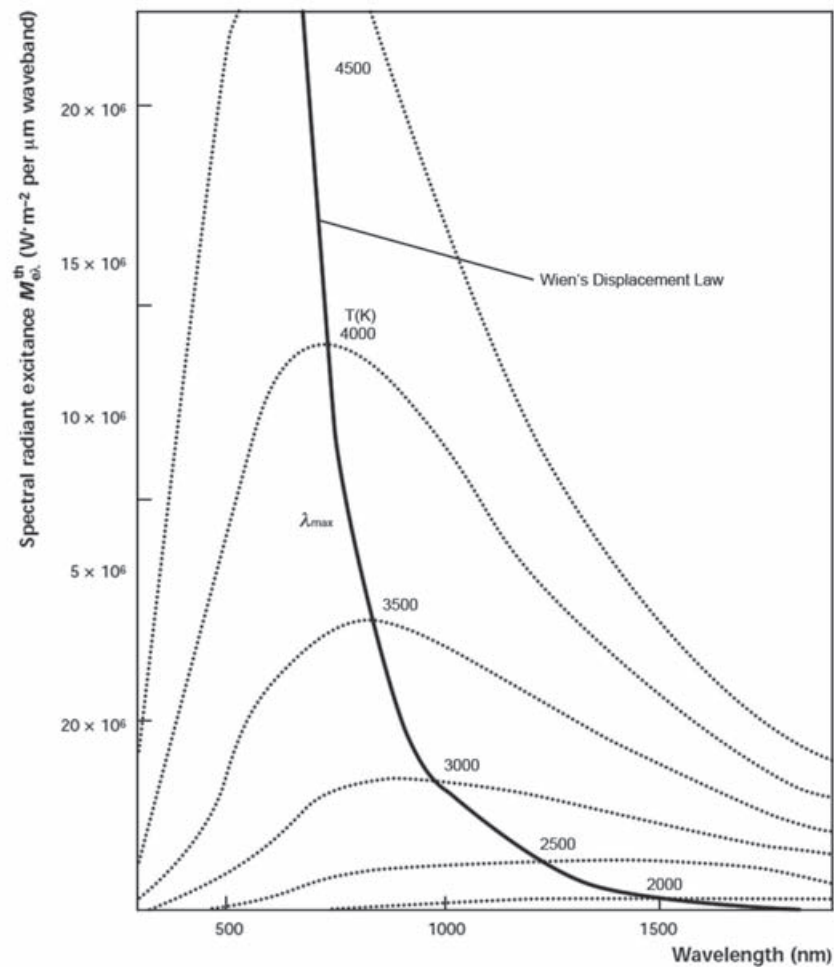


Figure 29  
Spectral power distribution of radiation according to Planck's Law.