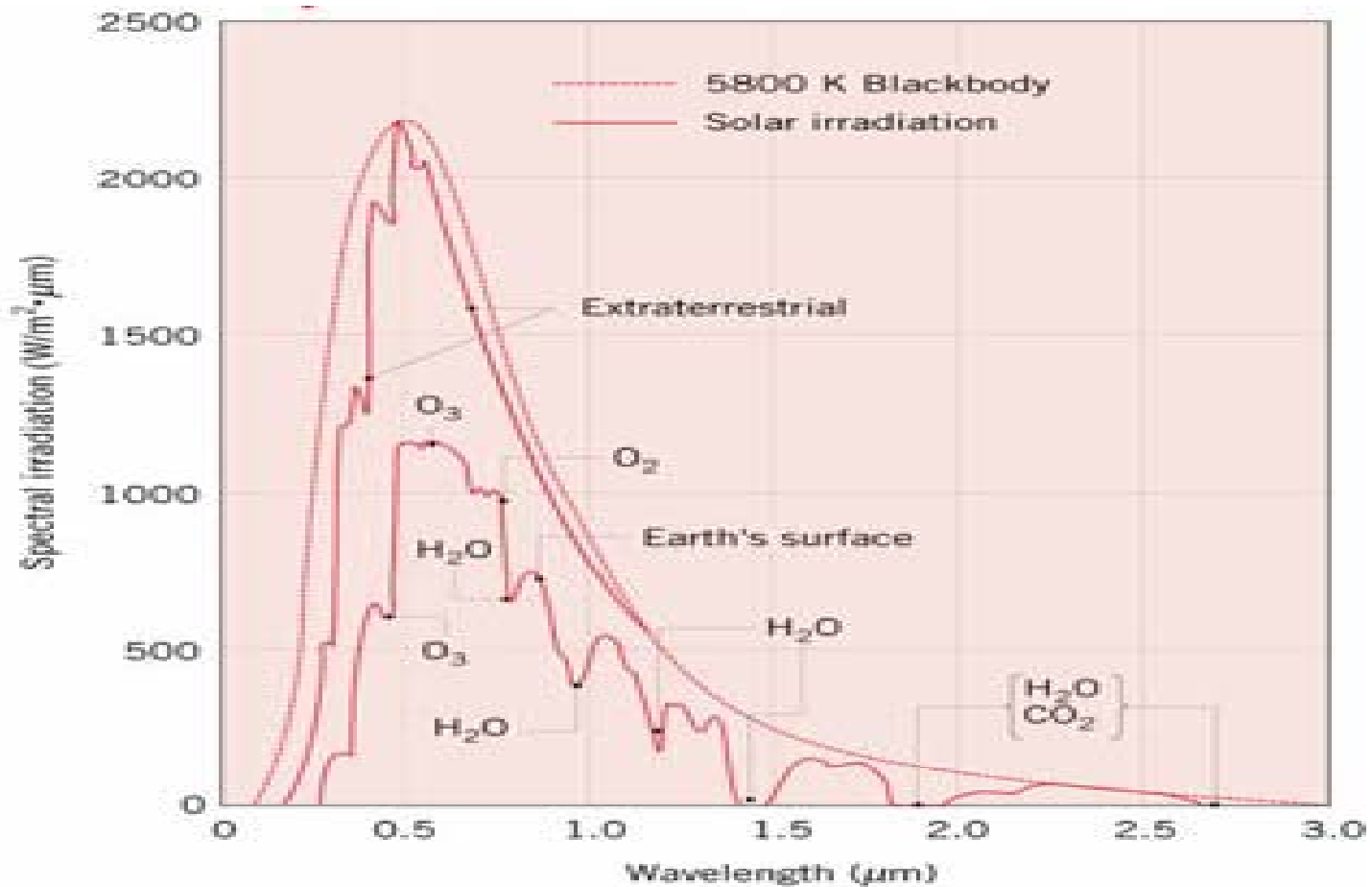


Radiation: Processes and Properties

Solar Radiation

- The sun is a nearly spherical source of radiation whose outer diameter is 1.39×10^9 m and whose emissive power approximates that of a blackbody at 5800 K.
- The distance from the center of the sun to the center of the earth varies with time of year from a minimum of 1.471×10^{11} m to a maximum of 1.521×10^{11} m, with an annual average of 1.496×10^{11} m.

Effect of Atmosphere on Spectral Distribution of Solar Radiation



Surface Radiative Properties

- Concentration of solar and terrestrial in different spectral regions often precludes use of the gray surface approximation

