The diagram illustrates the balance of radiation between the Sun and the Earth's atmosphere. The Sun, at 6000 K, emits black-body solar radiation, which peaks in the visible and near-infrared (NIR) wavelengths. The Earth, at an average temperature of ~290 K, emits black-body terrestrial radiation, which is strongest in the far-infrared (FAR IR) and microwave regions.

The wavelength spectrum is shown from 400 to 800 nm for visible light and 10^2 to 10^5 for the entire spectrum. Absorption bands of the Earth's atmosphere are highlighted:

- **O₃** (Ozone)
- **H₂O** (Water Vapor)
- **H₂O/CO₂**
- **CO₂**
- **H₂O**

The atmosphere is transparent to most incoming solar radiation (visible and near-IR), allowing sunlight to reach the Earth's surface. However, the atmosphere absorbs heavily the outgoing far-IR radiation of the Earth, known as the "greenhouse effect."