

solar radiation

in atmospheric chemistry

The electromagnetic radiation emitted by the sun. The total range of wavelengths of light emitted by the sun (99.9% in the range from 150 to 4000 nm) is filtered on entering the earth's atmosphere, largely through the absorption by oxygen, ozone, water vapour and carbon dioxide. Near sea level only light of wavelengths longer than about 290 nm is present. The light from 290 – 400 nm is effective in inducing important photochemical processes since absorption by the important trace gases, ozone, nitrogen dioxide, aldehydes, ketones, etc., is significant in this region.

Source:

PAC, 1990, 62, 2167 (*Glossary of atmospheric chemistry terms (Recommendations 1990)*) on page 2214