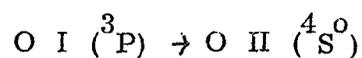


ABSOLUTE PHOTOIONIZATION CROSS SECTION FOR



By

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Measurements of the absolute cross section for photoionization from the $2p^4\ ^3\text{P}$ ground state of atomic oxygen will be described for wavelengths between the ${}^4\text{S}^{\circ}$ (91.2 nm) and ${}^2\text{D}^{\circ}$ (73.2 nm) limits. The cross section is determined from the absorption spectrum of shock heated mixtures of neon and oxygen at temperatures near 12000 K. The measured cross section will be compared to theoretical predictions and to earlier experimental work. Similar measurements of the photoionization cross section of H I which demonstrated the reliability of our windowless shock tube apparatus will be discussed briefly.