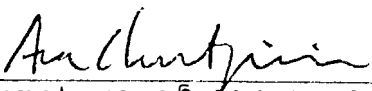


Abstract Submitted for the
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Suggested Title of Session:
Electron-Ion Collisions

Electron-impact excitation of the $4s^0-2p^0$ and $4s^0-2s2p^4P$ transitions in OII. M. ZUO, STEVEN J. SMITH, A. CHUTJIAN, Jet Propulsion Laboratory, Caltech. --- Excitation cross sections have been measured for the optically-forbidden $4s^0-2p^0$ and allowed $4s^0-2s2p^4P$ transitions in OII at 3.33 eV and 14.88 eV, respectively. Use was made of the energy-loss, merged-beams method [1-3]. Cross sections were measured in each transition from threshold to 21.5 eV ($2D^0$) and 40.0 eV (4P). Using close-coupling-calculated differential cross sections data will be corrected for the back-scattered cross section by amounts expected to be less than ~20%. Comparison will be made to recent close-coupling calculations [4]. This work was carried out at JPL/Caltech, and was supported by NASA.
[1] S.J. Smith et al, Phys. Rev. Lett. **67**, 30 (1991).
[2] S.J. Smith et al, Phys. Rev. A, submitted.
[3] S.J. Smith et al, J. Geophys. Res. (in press).
[4] B.M. McLaughlin and K.L. Bell, Ap. J. (in press).

Prefer Poster Session


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