Abstract Submitted
for the GEC07 Meeting of
The American Physical Society

Excitation of atomic oxygen by electron impact[1] RAJESH SRIVASTAVA, LALITA SHARMA, Physics Department, Indian Institute of Technology Roorkee, Roorkee 247667, India, ALLAN STAUFFER, Department of Physics and Astronomy, York University, Toronto, Canada M3J 1P3 — We have carried out relativistic distorted-wave calculations for the excitation of atomic oxygen from its ground $(2p)^4$ ^3P state to the excited $(2p)^3 3s$ ^3S, ^3P and ^3D states and to the $(2p)^3 3d$ ^3D state in the energy range from 15 to 100 eV. We compare our results for the differential cross sections with both experimental measurements and other theoretical calculations for these transitions and find our calculations agree very well with them. We have also compared our integrated cross sections for the excitation of $(2p)^3 3s$ ^3S for which extensive theoretical and experimental data have been reported.

[1]Supported by the Natural Sciences and Engineering Research Council of Canada, Ministry of Human Resource Development, Government of India.

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Date submitted: 29 May 2007 Electronic form version 1.4