Abstract Submitted
for the DAMOP17 Meeting of
The American Physical Society

**$N(^2P)$ Production in electron-$N_2$ Collisions.**[1] J WILLIAM MCCONKEY, WLADEK KEDZIERSKI, JEFFERY DECH, University of Windsor — A unique detector which is selectively sensitive to low energy metastable atoms, is used to study the production of ground configuration $N(^2P)$ atoms following collisions of low energy (0-300 eV) electrons with molecular nitrogen. Time-of-flight detection has allowed identification of at least two dissociation channels with significant differences in released kinetic energy of the fragments. Excitation probability measurements will be presented as a function of incident electron energy and near-threshold data will be used to help identify possible excitation channels.

[1]Support of NSERC and CFI, Canada, is gratefully acknowledged.

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Date submitted: 17 Jan 2017 Electronic form version 1.4