

Abstract Submitted
for the GEC06 Meeting of
The American Physical Society

Benchmark Measurements and Theory for Electronic Excitation of He by Electron Impact M. LANGE, J. MATSUMOTO, J.C. LOWER, S.J. BUCKMAN, CAMS, Australian National University, K. BARTSCHAT, O. ZAT-SARINNY, Drake University, USA, I. BRAY, D. FURSA, CAMS, Murdoch University, Australia — We present measurements and calculations of near-threshold electron impact excitation of the $n=2$ and $n=3$ levels of the He atom. The measurements have been performed using a new differential, position sensitive, time-of-flight technique. The theoretical calculations include the R-matrix with pseudostates, B-Spline R-Matrix and convergent close coupling approaches. The agreement between experiment and theory is very good and leads us to propose some benchmark cross sections for several energies and angles for these excited states.

Stephen Buckman
CAMS, Australian National University

Date submitted: 13 Jun 2006

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