Curtin University PHYS4001 - Thesis

Ionisation-with-Excitation Calculations for Electron-Impact Helium Collisions within the S-Wave Model

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Write abstract.

Declaration

Write declaration.

Acknowledgements

Write acknowledgements.

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TCS: total cross section

SDCS: single-differential cross section

DDCS: double-differential cross section

TDCS: triple-differential cross section

TICS: total ionisation cross section

CCC: convergent close-coupling

 $\mathrm{CCC}(N)$: convergent close-coupling calculation performed with N one-electron basis states

CCC(C, N): convergent close-coupling calculation performed with C core states and N one-electron basis

states

 $\mathrm{CCC}(C,N,\lambda)$: convergent close-coupling calculation performed with C core states, and N one-electron basis

states with exponential fall-off parameter λ

ECS: exterior complex scaling

PECS: propagating exterior complex scaling

1 Introduction

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- 1.2 Experimental Review
- 1.3 Theoretical Review

2 Theory

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