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3.1. Processes Involving Electron Capture  
 3.2. Double Ionization; 4. Conclusions; Acknowledgements; References; 4. A 4-Body Model for Charge Transfer Collisions A. L. Harris, J. L. Peacher and D. H. Madison; 1. Introduction; 2. General Theoretical Approach; 2.1. Transition Matrix and Differential Cross Section; 2.2. Two Potential Formulation; 3. Four-Body Transfer with Target Excitation (4BTTE) Model; 3.1. Single Charge Transfer without Target Excitation; 3.2. Charge Transfer with Target Excitation; 4. Four-Body Double Capture (4BDC) Model; 5. Conclusion; Acknowledgements; References

5. Distorted Wave Methodologies for Energetic Ion-Atom Collisions S. D. Kunikeev  
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 3. Single Electron Capture

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Sommario/riassunto

The principal goal of this book is to provide state-of-the-art coverage of the non-relativistic three- and four-body theories at intermediate and high energy ion-atom and ion-molecule collisions. The focus is on the most frequently studied processes: electron capture, ionization, transfer excitation and transfer ionization. The content is suitable both for graduate students and experienced researchers. For these collisions, the literature has seen enormous renewal of activity in the development and applications of quantum-mechanical theories. This subject is of relevance in several branches of

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