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Nota di contenuto	; 1. Direct and resonant double photoionization: from atoms to solids / Lorenzo Avaldi and Giovanni Stefani -- ; 2. The application of propagation exterior complex scaling to atomic collisions / Philip L. Bartlett and Andris T. Stelbovics -- ; 3. Fragmentation of molecular-ion beams in intense ultra-short laser pulses / Itzik Ben-Itzhak -- ; 4. Atoms with one and two active electrons in strong laser fields / I.A. Ivanov and A.S. Kheifets -- ; 5. Experimental aspects of ionization studies by positron and positronium impact / G. Laricchia, D.A. Cooke, A. Kover and S.J. Brawley -- ; 6. (e,2e) spectroscopy using fragmentation processes / Julain Lower, Masakazu Yamazaki and Masahio Takahashi -- ; 7. A coupled pseudostate approach to the

calculation of ion-atom fragmentation processes / M. McGovern, H.R.J. Walters and Colm T. Whelan -- ; 8. Electron Impact Ionization using (e, 2e) coincidence techniques from threshold to intermediate energies / Andrew James Murray -- ; 9. (e,2e) processes on atomic inner shells / Colm T. Whelan -- ; 10. Spin-resolved atomic (e,2e) processes / Julian Lower and Colm T. Whelan.

Sommario/riassunto

Revolutionary advances in experimental techniques and spectacular increases in computer power over recent years have enabled researchers to develop a much more profound understanding of the atomic few-body problem. One area of intense focus has been the study of fragmentation processes. Covering the latest research in the field, this edited text is the first to provide a focussed and systematic treatment of fragmentation processes, bringing together contributions from a range of leading experts. As well as tackling the more established electron-impact ionization processes, (e,2e), this book also guides the reader through topics such as molecular fragmentation, ion-atom collisions and multi-photon processes. Combining a broad range of topics with an equal mix of theoretical and experimental discussion, this is an invaluable text for graduate students and researchers in atomic collisions, laser physics and chemistry.
