

DISSOCIATIVE RECOMBINATION Theory, Experiment and Applications IV

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Dissociative recombination is a complex molecular process that occurs in any plasma cold enough to contain molecular constituents. It is the dominant recombination process in planetary ionospheres and interstellar clouds. In this book, recent developments in the fields of molecular ion physics, atomic and molecular theory, astrochemistry, aeronomy and plasma physics are discussed.

Contents:

- Dissociative Recombination in Astrophysical Environments (A Dalgamo)
- ◆ H₃⁺ in the Diffuse Interstellar Medium: The Enigma Related to Dissociative Recombination (T Oka)
- Role of Dissociative Recombination and Related Molecular Processes in Fusion Edge Plasmas (RK Janey)
- ♦ Photofragment Spectroscopy with Stored Molecular Ion Beams (U Hechtfischer et al)
- Difficulties Inherent in the Theory of Low-Temperature Dissociative Recombination and Possible Ways of Their Obviation (MG Golubkov et al)
- ♦ Resonance Curves for Dissociative Recombination Using the R-Matrix Method (J Tennyson)
- ♦ Dissociative Recombination of H₃⁺ and Predissociation of H, (I F Schneider et al)
- ♦ Long-Range Effects in the Formation of H₂⁺ and the Dissociative Recombination of HD⁺ (X Urbain)
- ♦ Higher Order Contribution in the Dissociative Processes of Diatomic Molecules (H Takagi)
- Identity and Degree of Excitation of the Products of Dissociative Electron-Ion Recombination (NG Adams and LM Babcock)
- ♦ Two-Colour Photoassociative Ionization in Ultracold Sodium (O Dulieu et al)
- ♦ Advances in Photoionization and Photoelectron Studies Using Third Generation Synchrotron Radiation (CY Ng)
- ♦ Electron Scattering Experiments at the ASTRID Storage Ring (L.H. Andersen)
- ♦ Electron-Molecule Collisions: New Experiments, New Ideas (J.B.A Mitchell & BR Rowe)
- Dissociative Recombination on Diatornics: Do We Understand Product State Branching? (W.J. van der Zande)
- and other papers.

Readership: Atomic, molecular, experimental, computational and applied physics ISBN 981-02-4077-5
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