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D. Berényi G. Hock (Eds.)

## High-Energy Ion-Atom Collisions

Proceedings of the 3rd Workshop on  
High-Energy Ion-Atom Collisions  
Held in Debrecen, Hungary, August 3–5, 1987

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## PREFACE

Rapid developments in the field of ion-atom collisions were the motivation for the 3rd Workshop on High-Energy Ion-Atom Collision Processes in Debrecen (Hungary), August 3-5, 1987. As an example of this progress in energetic ion-atom collision studies, it is worth while mentioning that some topics which were at most touched upon at the former workshops (e.g. electron correlation and three-particle aspects of collisions, collisions involving antiparticles, etc.) have now become of central interest.

The following "hot topics" were discussed in the workshop: two-centre and electron correlation phenomena, collisions with anti-protons, recent results on alignment and orientation in energetic heavy-ion collisions, autoionization electron studies in the meV region and the utilization of heavy-ion storage rings in ion-atom collision experiments. The present volume contains almost all of the invited surveys as well as the invited and poster contributions presented at the workshop. In addition, it contains some papers submitted directly to these proceedings.

It should be mentioned here that the proceedings of the former two workshops in this series of meetings, held in Debrecen in previous years, have also been published: "High-Energy Ion-Atom Collisions", Proc. Int. Seminar on High-Energy Ion-Atom Collision Processes, Debrecen, Hungary, March 17-19, 1981, edited by D. Berényi and G. Hock, Akadémiai Kiadó, Budapest (Elsevier Sci. Publ. Co., Amsterdam 1982) and "High-Energy Ion-Atom Collisions", Proc. 2nd Workshop on High-Energy Ion-Atom Collision Processes, Debrecen, Hungary, August 27-28, 1984, edited by D. Berényi and G. Hock, Akadémiai Kiadó, Budapest 1985.

Budapest, November 1987

D. Berényi  
G. Hock

The 3rd Workshop on High-Energy Ion-Atom Collision Processes, August 3-5, 1987, Debrecen, Hungary was a satellite meeting of the XVth International Conference on the Physics of Electronic and Atomic Collisions, July 22-28, 1987, Brighton, England

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