

## CONTENTS

Electron scattering experiments at Chungnam National University ..... <i>H. cho, and Y.S. Chung</i>	1
Angular distribution for elastic scattering of electrons from Ar <sup>7+</sup> ions ..... <i>A. Danjo</i>	11
Electron-impact excitation cross sections for highly-charged ions ..... <i>T. Kagawa and T. Kawasaki</i>	18
Electron spectra from electron-impact excitation of helium to autoionizing states ..... <i>Y.S. Chung and H. Cho</i>	25
Electron impact cross section measurements related to plasma discharges and material processing <i>H. Tanaka and M. Kitajima</i>	30
Atomic physics experiments using the Tokyo electron beam ion trap ..... <i>N. Nakamura</i>	46
Electron detachment from H <sup>-</sup> ions colliding with positive ions - Comparison with Neutral Atoms - <i>T.W. Imai, R.D. Rivarola, P. Fainstein and H. Tawara</i>	55
Monte Carlo calculation of ionization by electron impacts on a rydberg hydrogen atom: Angular distributions of the two outgoing electrons <i>T. Fujimoto</i>	65
Study of atoms and molecules using synchrotron radiation ..... <i>Y. Chung</i>	75
Calculation of direct radiative capture of electrons by atomic ions ..... <i>Y.S. Kim and R.H. Pratt</i>	86
Volumetric recombination processes in detached divertor plasmas ..... <i>N. Ohno, N. Ezumi, D. Nishijima and S. Takamura</i>	91
Excited level populations of Li-like Al ions in low temperature dense recombining plasma <i>T. Kawachi, K. Ando, C. Fujikawa, N. Yamaguchi, T. Hara and Y. Aoyagi</i>	104
Recent results from time- and space-resolved x-ray spectroscopic measurements of Laser Fusion Plasmas <i>K. Fujita, Y. Ochi, I. Niki, M. Heya, H. Shiraga, H. Nishimura, I. Uschmann, R. Butzbach, E. Förster, A. Sunahara, M. Fukao, H. Takabe, T. Kawamura and K. Mima</i>	111

Dynamic plasma screening effects on atomic collisions in Maxwellian and ..... 122  
Lorentzian plasmas

*Y.D. Jung*

Study of compact x-ray laser pumped by pulse-train YAG laser by using the ..... 130  
recombining plasma scheme

*N. Yamaguchi, T. Hara, T. Ohchi, C. Fujikawa, K. Okasaka and K. Ando*

Spectroscopic measurement of the ultrashort high intensity laser produced plasmas ..... 138  
*I.W. Choi and H. Daido*

Toward the development of ke V X-ray lasers using innershell processes ..... 148  
in atoms and ions

*D.E. Kim*

Impurity behavior in JT-60U W-shaped divertor ..... 155  
*H. Kubo*

Secondary charged particle emissions from metallic and non-metallic surfaces ..... 161  
*H. Kazumoto and T. Hiroyuki*

Excitations of cometary molecules by electron and neutral collisions ..... 167  
*S.J. Kim*

Agenda ..... 179