

CONTENTS

Preface	vii
Chapter 1 Experimental Study on Tandem Mirror Edge Plasmas and Theoretical Study on Plasmas in Divertor Environment <i>Md. Khairul Islam and Yousuke Nakashima</i>	1
Chapter 2 Material Probe Analysis for Plasma Facing Surface in the Large Helical Device <i>T. Hino, Y. Nobuta, N. Ashikawa, N. Inoue, A. Sagara, K. Nishimura, Y. Yamauchi, Y. Hirohata, N. Noda, N. Ohyabu, A. Komori, O. Motojima and LHD Experimental Group</i>	45
Chapter 3 Supersonic Molecular Beam Injection in Fusion Plasma <i>Lianghua Yao</i>	61
Chapter 4 A Diagnostic Method of Electromagnetic Field Patterns of Fast Wave in High Temperature Plasma <i>Mikio Saigusa and Sadayoshi Kanazawa</i>	89
Chapter 5 Large Electric Fields in Stellarators <i>Thomas Sunn Pedersen</i>	109
Chapter 6 Development of the Ignition Control Algorithm with Diagnostic Sets for an Inductive Operation in a Tokamak Reactor <i>Osamu Mitarai</i>	125
Chapter 7 Optimization of Current Density Profile and High Performance Scenarios in the Tokamak Discharges <i>Qingdi Gao</i>	153
Chapter 8 <i>Estafette</i> of Drift Resonances, Stochasticity and Particle Transport <i>Alexander A. Shishkin</i>	197

Chapter 9	Positron Annihilation Investigations of Defects in Copper Alloys Selected for Nuclear Fusion Technology <i>V. Slugen, J. Kuriplach, P. Ballo, P. Domonkos, G. Kögel, P. Sperr, W. Egger, W. Triftshäuser, V. M. Domankova, P. Kovac, I. Vavra, S. Stancek, M. Petriska and A. Zeman</i>	219
Chapter 10	Plasma Turbulent Transport Modelling by Means of Lévy Distributions <i>R. Sánchez, B.Ph. van Milligen and B.A. Carreras</i>	237
Index		269