CONTENTS

Introduction H. Knoepfel	1
I. STARTUP TO IGNITION: RESULTS, MODELS AND SCENARIOS	
Tokamak Startup J. Sheffield	7
A Simple Procedure for Establishing Ignition Conditions in Tokamaks N.A. Uckan and J. Sheffield	45
A Comparison of Tokamak Burn Cycle Options D.A. Ehst et al.	73
Start-up and Operation Scenarios of NET F. Engelmann	95
Operation Scenario of Fusion Experimental Reactor with Main Emphasis on Startup N. Fujisawa and FER Plasma Design Group	111
ASDEX Upgrade, Start-up and Operation O. Gruber and ASDEX Upgrade Project Group	131
Discharge Control and Evolution in TFTR D. Mueller et al.	143
Start-up of the Ohmic Phase in JET A. Tanga, P.R. Thomas et al.	159
The Startup of Tokamaks and the Tokamak Startup D. Palumbo	183
II. NONINDUCTIVE CURRENT DRIVE	
Lower Hybrid Current Drive and Recharging of the Ohmic Heating Transformer in ASDEX	19:

Start-up and Ramp-up of the PLT Tokamak by Lower Hybrid Waves F.C. Jobes et al.	203
Lower Hybrid Current Start-up and Ramp-up in the JIPP T-IIU Tokamak K. Toi et al.	217
Current Ramping and Profile Shaping with Lower Hybrid Current Drive in the PETULA-B Tokamak D. van Houtte et al.	227
Ramp-up and Current Drive by Lower-Hybrid Waves on Tore Supra G. Tonon	237
Heating and Current Drive Scenarios with ICRF J. Jacquinot	259
Plasma Current Profile Shaping with RF-Current Drive D.A. Ehst and K. Evans, Jr.	269
III. TECHNOLOGY AND IMPURITIES	
Impurity Control and its Impact upon Start-up and Trans- former Recharging in NET M.F.A. Harrison	283
Pump Limiters K.H. Finken	309
Wall Protection in JET K.J. Dietz et al.	317
Plasma Position Control in ASDEX Upgrade U. Seidel et al.	325
Plasma Position Control E. Coccorese and F. Garofalo	337
Technological Implications of Start-up and Current Transients on the Design of Electromechanical Components E. Salpietro	353
IV. PANEL DISCUSSIONS AND CONCLUSIONS	
Panel Discussion on "Noninductive Current Drive" G. Briffod et al.	379
Panel Discussion on "Impurity Control" M.F.A. Harrison	395
Panel Discussion and Conclusion on "Tokamak Start-up - Pro- blems and Operational Scenarios Related to the Tran- sient Phases of Thermonuclear Fusion Reactor"	403

V. EPILOGUE	
Fusion and the Spirit of Erice	419
Poetic Touch	421
Participants	423
International School of Fusion Reactor Technology	425
ABBREVIATIONS	427
INDEX	429