

	page
CONTENTS	
List of participants.....	XI
E. SINDONI - Welcome address.....	XV
LECTURES	
=====	
W. M. HOOKE and R. E. FAUBER - Some fundamental plasma physics concepts relative to industrial plasmas - A tutorial.....	3
F. DE MARCO - Propagation and absorption of electromagnetic waves in collisional, partially ionised gases...	15
W. M. HOOKE, S. P. BOZEMAN and J. W. OLESIK - Some aspects of wave propagation in collisional plasmas.....	33
J. L. SHOHET - Plasma-aided manufacturing.....	47
K. T. SCOTT - Thermal plasma torches for materials processing.....	65
R. ITATANI - Plasma application: plasma chemistry and material science background for plasma physicists.....	81
J. E. STEVENS - RF physics issues for electron cyclotron resonance plasma Etch tool operation.....	95
G. LISITANO - Microwave plasma generation with slotted-line radiator structures.....	109
Y. KAWAI, A. KOMORI and M. MURATA - Production of a large diameter ECR plasma.....	117
T. CONSOLI - A selective review of some industrial applications of EM fields.....	131
N. SATO and S. IIZUKA - Control of plasmas for material processings.....	147
G. M. BATANOV, N. K. BEREZHETSKAYA, E. F. BOL'SHAKOV, A. A. GORBUNOV, A. A. DOROFYUK, V.I. KONOV, V.A. KOP'EV, I. A. KOSSYI and A. YU. KOSTINSKII - Super-pure plasma chemistry in discharges, excited by intense microwave beams.....	161
R. WILHELM - Microwave plasmas for surface treatment and thin-film production.....	185

G. BONIZZONI - Plasma arc technology for toxic waste treatment and metal production: industrial applications and perspectives.....	199
J. V. R. HEBERLEIN - Thermal plasmas for the destruction of hazardous wastes.....	219
P. C. EFTHIMION, D. J. HELFRITCH and D. H. MCNEILL - Destruction of NO _x in flue gas by plasma assisted chemistry.....	237
M. G. DROUET - High temperature processes for industrial waste treatment and valorisation.....	259
R. ITATANI - Studies on toxic waste destruction with plasmas in Japan.....	271
J. W. OLESIK - Inductively coupled plasma optical emission spectrometry for elemental analysis.....	281
G. M. HIEFTJE - Plasma sources for atomic spectrochemical analysis.....	293
R. D'AGOSTINO and F. FRACASSI - The chemistry of plasma etching processes.....	309
S. M. BOBBIO - Magnetron etch technology.....	327
H. FUJIYAMA - Plasma processing for large scale solar cell plates.....	349
R. W. BOSWELL - The history and application of the Helicon source to plasma processing.....	363
A. W. KOCH - Plasma deposition and in situ - Diagnostics	377
J. J. BEULENS, A. J. M. BUURON, G. J. MEEUSEN, M. C. M. VAN DE SANDEN and D. C. SCHRAM - (Fast) plasma deposition of amorphous and crystalline layers; a discussion of the physical mechanisms.....	391
A. MATSUDA - Growth mechanism and control of defects in the deposition of hydrogenated amorphous silicon thin films from a silane glow-discharge plasma.....	405
N. ST. J. BRAITHWAITE - Low pressure plasma deposition of wear and barrier coatings.....	419
K. T. SCOTT - Plasma sprayed coatings.....	433
S. S. TSEREVITINOV - Material surface treatment by pulsed high energy plasma.....	447

G. A. ASKARYAN, G. M. BATANOV, A. E. BARKHUDAROV, S. I. GRITSININ, E. G. KORCHAGINA, I. A. KOSSYI, I. N. ROZHKOV, V. P. SILAKOV and N. M. TARASOVA - Gas discharge as a method for overcoming the consequences of atmosphere pollution by chlorofluorocarbons (CFC's).....	463
--	-----

CONTRIBUTED PAPERS

D. H. MCNEILL - Pyrolysis in tokamak plasmas.....	483
A. E. GREENE, L. A. BECHTOLD, J. J. COOGAN and L. A. ROSOCHA - Modeling of silent discharge plasma for the destruction of hazardous organic compounds.....	489
M. J. DE GRAAF, R. SEVERENS, Z. QING, R. DAHIYA, D. K. OTORBAEV, R. F. G. MEULENBROEKS, M. C. M. VAN DE SANDEN and D. C. SCHRAM.....	495
C. CHARLES, A. GOULLET, P. GARCIA, B. GROLLEAU, G. TURBAN, R. W. BOSWELL, G. GIROULT-MATLAKOWSKI, R. K. PORTEOUS, A. BOUCHOULE, C. LAURE and P. RANSON.....	497
D. BATANI, I. C. E. TURCU, G. J. TALLENTS, F. BIJKERK, E. LOUIS - High repetition laser plasma X-ray source for microlithography.....	503
N. MUTSUKURA, Y. FUKAZAWA, Y. MACHI and T. KUBOTA - Diagnostics and control of RF glow-discharge plasma: application to CF ₄ plasma for dry etching of silicon....	509
V. K. GERASIMOV, K. F. SERGEICHEV and I. A. SYCHOV - Diamond synthesis by means of microwave discharge.....	515
G. M. BATANOV, V. A. IVANOV, M. E. KONYZHEV, V. A. KONYUSHKIN and S. B. MIROV - Coloration of LiF single-crystals by surface microwave discharges.....	521
M. NUNOGAKI and T. OKADA - Application of ion- and electron-beam to preparative improvement of materials for the subsequent surface nitridation process.....	527
A. E. GREENE, R. J. FAEHL, R. K. KEINIGS, T. A. OLIPHANT and W. R. SHANAHAN - Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges.....	533
T. YAMAGUCHI, R. HIDAKA, N. HIROTSU, M. TANAKA and Y. KAWAI - 8 inches uniform ECR plasmas using the circular TEO1 mode microwave.....	539
D. E. BULLARD and D. C. LYNCH - Potential for processing of refractory ores in a microwave induced "cold" plasma.....	545

J. FEUGEAS, G. SANCHEZ, G. GRIGIONI, C.O. DE GONZALEZ and A. POCHETTINO - Thermal effect of pulsed ion implan- tation with a coaxial plasma gun.....	551
M. HRABOVSKY - Plasma generator with water stabilized dc arc.....	557
A. HEILMANN, F. HOMILIUS and J. WERNER - Plasma polymer metal composite films: changes of the electrical and optical properties.....	563
G. J. DISHON, S. M. BOBBIO, N. G. KOOPMAN and G. A. RINNE - Plasma assisted fluxless soldering.....	569
R. WILHELM - Industrial applications of plasma physics. Summary of a Varenna Course.....	577