

CONTENTS OF VOLUME III

HEATING (Session XVIII)

Rapid further heating of tokamak plasma by fast-rising magnetic pulse (IAEA-CN-35/G5-1)	3
<i>N. Inoue, H. Nihei, K. Yamazaki, M. Ichimura, J. Morikawa, K. Hoshino, T. Uchida</i>	
Turbulent heating of a toroidal plasma through a skin layer (IAEA-CN-35/G5-2)	11
<i>Y. Amagishi, A. Hirose, H.P. Piekaar, H.M. Skarsgard</i>	
A new method of collisionless heating for toroidal plasmas involving low-frequency axisymmetric pumping (IAEA-CN-35/G6)	19
<i>E. Canobbio</i>	
Discussion on paper IAEA-CN-35/G6	29
Plasma heating in a toroidal system by a helical quadrupole RF field with $\omega < \omega_{Bi}$ (IAEA-CN-35/G7)	31
<i>R.A. Demirkhanov, A.G. Kirov, S.N. Lozovskij, F.M. Nekrasov, A.G. Elfimov, S.E. Il'inskij, V.V. Onishchenko</i>	
Discussion on paper IAEA-CN-35/G7	37
Magnetosonic wave generation and damping in the TFR tokamak near the ion cyclotron frequencies (IAEA-CN-35/G8)	39
<i>Equipe TFR</i>	
Discussion on paper IAEA-CN-35/G8	47
Experiments at the lower hybrid frequency in the Wega tokamak (IAEA-CN-35/G9)	49
<i>P. Blanc, W. Hess, G. Ichtchenko, P. Javel, P. Lallia, C. Mahn, T.K. Nguyen, W. Ohlendorf, G.W. Pacher, H.D. Pacher, S. Takamura, G. Tonon, J.G. Wegrowe</i>	
Discussion on paper IAEA-CN-35/G9	59
Magnetoacoustic-heating experiments in tokamak T-4 plasma (IAEA-CN-35/G10)	61
<i>V.V. Buzankin, V.A. Vershkov, N.V. Ivanov, I.A. Kovan, V.A. Krupin, I.A. Popov, I.B. Semenov, Yu.A. Sokolov</i>	
Discussion on paper IAEA-CN-35/G10	75

HIGH BETA IV (Session XIX)

Limits in the production of a low compressed high-beta plasma in the linear theta pinch Isar II (IAEA-CN-35/E13-1)	79
<i>W. Köppendörfer, M. Munich, J. Sommer</i>	
Shock heating of collisionless plasmas in toroidal geometry (IAEA-CN-35/E13-2)	89
<i>F. Söldner, K.-H. Steuer</i>	
Discussion on papers IAEA-CN-35/E13-1, E13-2	101
Experimental study of a two-stage ion-heating plasma injection and compression experiment (IAEA-CN-35/E14)	103
<i>H. Itô, S. Gotô, T. Uyana, N. Satomi, K. Watanabe</i>	
Discussion on paper IAEA-CN-35/E14	111

Kinetic and numerical studies of microstability properties and anomalous transport in theta pinches (IAEA-CN-35/E15)	113	preliminary design of a tokamak experimental fusion reactor (IAEA-CN-35/I3-1)	239
<i>R.C. Davidson, N.T. Gladd, J. Huba, B.H. Hui, P.C. Liewer, C.S. Liu, J.P. Mondt, J.M. Ogden, C.S. Wu, S. Hamasaki, N.A. Krall, C.E. Wagner</i>		<i>K. Sako, T. Tone, Y. Seki, H. Iida, S. Matsuda, H. Yamato, N. Asami, F. Eto, T. Ide, T. Suzuki, K. Maki, K. Ioki</i>	
Discussion on paper IAEA-CN-35/E15	121	Tokamak experimental power reactor studies (IAEA-CN-35/I3-2)	255
Kinetic behaviour of high-beta plasmas (IAEA-CN-35/E16)	123	<i>W.M. Stacey, Jr., C.C. Baker, M. Roberts</i>	
<i>J.P. Freidberg, R.A. Gerwin, D.W. Hewett, H.R. Lewis, C.W. Nielson, A.G. Sgro, L. Turner, D. Winske</i>		Discussion on papers IAEA-CN-35/I3-1, I3-2	279
Discussion on paper IAEA-CN-35/E16	131	Pure-fusion and fusion-fission reactor applications of high-density linear confinement systems (IAEA-CN-35/I4)	281
		<i>R.A. Krakowski, R.L. Miller, R.L. Hagenson, L.C. Steinhauer, G.C. Vlases, R.T. Taussig, P.H. Rose, A.L. Hoffman, D.C. Quimby, G.L. Woodruff, H.J. Willenberg</i>	
OPEN TRAPS (Session XX)			
2XIIB plasma confinement experiments (IAEA-CN-35/C1)	135	REACTOR DESIGN II (Session XXII)	
<i>F.H. Coensgen, J.F. Clauser, D.L. Correll, W.F. Cummins, C. Gormezano, B.G. Logan, A.W. Molvik, W.E. Nexsen, T.C. Simonen, B.W. Stallard, W.C. Turner</i>		Neutral beam injector research and development work in the USA (IAEA-CN-35/I5)	293
Discussion on paper IAEA-CN-35/C1	145	<i>L.D. Stewart, G.C. Barber, W.K. Dagenhart, R.C. Davis, L.R. Grisham, H.H. Haselton, J. Kim, N.S. Ponte, P.M. Ryan, D.E. Schechter, G. Schilling, W.L. Stirling, C.C. Tsai, J.H. Whealton, R.E. Wright, W.R. Baker, K.H. Berkner, W.S. Cooper, K.W. Ehlers, J.M. Haughian, D.B. Hopkins, W.B. Kunkel, B.A. Pritchard, R.V. Pyle, H.M. Owren, J.W. Stearns, O.A. Anderson, D.H. Birdsall, D.L. Correll, E.B. Hooper, Jr., L.C. Pittenger, D.S. Prono, K. Prelec, T. Sluyters, H. Halama</i>	
Theoretical explanation of present mirror experiments and linear stability of larger scaled machines (IAEA-CN-35/C2)	147	Discussion on paper IAEA-CN-35/I5	301
<i>H.L. Berk, D.E. Baldwin, T.A. Cutler, L.L. Lodestro, N. Maron, L.D. Pearlstein, T.D. Rognlien, J.J. Stewart, D.C. Watson</i>		Development of fast neutral beam injectors at Fontenay-aux-Roses (IAEA-CN-35/I6)	303
Discussion on paper IAEA-CN-35/C2	159	<i>A. Bariaud, R. Becherer, J.F. Bonnal, J. Druaux, M. Fumelli, R. Oberson, P.A. Raimbault, F.P.G. Valckx</i>	
Theory of mirror machines at high beta (IAEA-CN-35/C3)	161	Discussion on paper IAEA-CN-35/I6	315
<i>B. McNamara, D.V. Anderson, J.K. Boyd, J.A. Byers, R. Cohen, T.A. Cutler, L.S. Hall, R.F. Post, M. Rensink</i>		Pulsed energy storage in fusion devices (IAEA-CN-35/I7)	317
Discussion on paper IAEA-CN-35/C3	175	<i>K.I. Thomassen, J.D. Rogers, F.L. Ribe, D.M. Weldon, C.E. Swannack, H.F. Vogel, H.G. Rylander, W.F. Weldon, K.M. Tolk, M.D. Driga, W.L. Bird, Jr., H.H. Woodson, C.J. Mole, R.E. Stillwagon</i>	
Open trap with ambipolar mirrors (IAEA-CN-35/C4)	177	Discussion on paper IAEA-CN-35/I7	325
<i>G.I. Dimov, V.V. Zakajdakov, M.E. Kishinevskij</i>		Removal of foreign atoms from a metal surface bombarded with fast atomic particles (IAEA-CN-35/I 8)	327
Discussion on paper IAEA-CN-35/C4	189	<i>S.K. Dolotov, S.A. Evstigneev, S.Yu. Luk'yanov, Yu. V. Martynenko, V.M. Chichero</i>	
		Discussion on paper IAEA-CN-35/I 8	335
REACTOR DESIGN I (Session XXI)			
Reactor costs and maintenance, with reference to the Culham Mark II conceptual tokamak reactor design (IAEA-CN-35/I1-1)	193	Dynamic characteristics of alpha-particle heating based upon the Fokker-Planck equation in D-T fusion reactor core plasmas (IAEA-CN-35/I 9-1)	337
<i>R. Hancox, J.T.D. Mitchell</i>		<i>H. Saito, M. Katsurai, H. Tsuji, T. Sekiguchi</i>	
A high-performance non-circular tokamak power reactor design study UWMAK-III (IAEA-CN-35/I1-2)	203	Thermal thermonuclear instability in a tokamak reactor (IAEA-CN-35/I 9-2)	347
<i>R.W. Conn, G.L. Kulcinski, C.W. Maynard, R. Aronstein, R.W. Boom, A. Bowles, R.G. Clemmer, J. Davis, G.A. Emmert, S. Ghose, Y. Gohar, J. Kesner, S. Kuo, E. Larsen, J. Scharer, I. Sviatoslavsky, D.K. Sze, W.F. Vogelsang, T.F. Yang, W.D. Young</i>		<i>Ya.I. Kolesnichenko, S.N. Reznik</i>	
Discussion on papers IAEA-CN-35/I1-1, I1-2	221	Stationary temperature profile in a tokamak reactor operated in the neoclassical regime (IAEA-CN-35/I 9-3)	359
Mirror reactor studies (IAEA-CN-35/I2)	223	<i>T.F. Volkov, Yu.L. Igitkhanov, M.Z. Tokar'</i>	
<i>R.W. Moir, W.L. Barr, D.J. Bender, R.J. Burleigh, G.A. Carlson, R.S. Devoto, J.N. Doggett, J.H. Fink, G.W. Hamilton, J.D. Lee, M.E. Rensink, C.E. Taylor, R.W. Werner, K.R. Schultz</i>		Discussion on papers IAEA-CN-35/I 9-1, I 9-2, I 9-3	367
Discussion on paper IAEA-CN-35/I2	237		

MISCELLANEOUS (Session XXIII)		Some properties of the neutron yield in a low-energy plasma focus (IAEA-CN-35/E18-5(c))	491
Energy principles for non-ideal MHD (IAEA-CN-35/H1)	371	<i>H. Bruzzone, R. Delellis, R. Gratton, H. Kelly, M. Milanese, J. Pouzo</i> Discussion on papers IAEA-CN-35/E18-1, E18-2, E18-3, E18-4, E18-5	495
<i>H. Tasso</i> Discussion on paper IAEA-CN-35/H1	383	Space-time structure of neutron and X-ray sources in a plasma focus (IAEA-CN-35/PD 2)	497
Experimental studies on generation and behaviour of field-reversing E- and P-layers (IAEA-CN-35/H2-1)	385	<i>W.H. Bostick, V. Nardi, W. Prior</i> Stabilized imploding liner fusion systems (IAEA-CN-35/E19-1)	507
<i>H.A. Davis, H.H. Fleischmann, S.C. Luckhardt, R.A. Meger</i> Formation of a high-current relativistic-electron-beam ring for plasma confinement (IAEA-CN-35/H2-2)	395	<i>D.L. Book, A.L. Cooper, R. Ford, K.A. Gerber, D.A. Hammer,</i> <i>D.J. Jenkins, A.E. Robson, P.J. Turchi</i> Investigation of model thermonuclear systems with liners (IAEA-CN-35/E19-2)	517
<i>A. Mohri, M. Masuzaki, K. Narihara, T. Tsuzuki, K. Yamanaka, K. Ikuta</i> Discussion on papers IAEA-CN-35/H2-1, H2-2	403	<i>S.G. Alikhanov, V.P. Bakhtin, V.M. Brusnikin, I.S. Glushkov,</i> <i>R.Kh. Kurtmullaev, A.L. Lunin, A.D. Muzychenko, V.P. Novikov,</i> <i>V.V. Pichugin, V.N. Semenov, G.E. Smolkin, E.G. Utyugov, I.Ya. Shipuk</i> Energetic aspects of fast-fusion reactors with dense liners of medium velocities (10 to 100 km · s ⁻¹) (IAEA-CN-35/E 20)	527
Macroparticle acceleration by laser-induced ablation pressure (IAEA-CN-35/H3)	405	<i>C. Rioux</i> Theory and calculations of non-magnetic dense-plasma confinement (IAEA-CN-35/E21)	535
<i>M.D.J. Burgess, H. Motz, P.T. Rumsby, M. Michaelis</i> Generation of intense ion beams and their application to controlled fusion research (IAEA-CN-35/H4)	415	<i>G.E. Vekshtejn, V.V. Mirnov, D.D. Ryutov, P.Z. Chebotaev</i> Discussion on paper IAEA-CN-35/E 21	545
<i>P. Dreike, R.L. Ferch, A. Friedman, S. Humphries, R.V. Lovelace,</i> <i>G. Ludwig, R.N. Sudan, D.L. Book, G. Cooperstein, A.T. Drobot,</i> <i>J. Golden, S.A. Goldstein, C.A. Kapetanakis, R. Lee, W. Manheimer,</i> <i>S.J. Marsh, D. Mosher, E. Ott, S.J. Stephanakis, P.J. Turchi</i> Plasma confinement in a cusp field with RF plugging (IAEA-CN-35/H5)	427	SUMMARY OF THE CONFERENCE (Session XXV)	
<i>S. Hiroe, T. Sato, T. Watari, S. Hidekuma, R. Kumazawa, K. Adati,</i> <i>T. Shoji, S. Kawasaki, T. Hatori, H. Obayashi, T. Watanabe, N. Watanabe,</i> <i>S. Miyake, A. Miyahara, K. Takayama</i>		Summary of magnetic confinement (experiments) (IAEA-CN-35/S1)	549
FOCUS, LINER, WALL CONTAINMENT (Session XXIV)		<i>R.S. Pease</i> Summary of magnetic confinement (theory) (IAEA-CN-35/S2)	555
Neutron production in the dense plasma focus (IAEA-CN-35/E18-1(a))	437	<i>M.N. Rosenbluth</i> Summary of inertial confinement (IAEA-CN-35/S3)	563
<i>H.J. Kaeppler</i> Dynamics of 120 and 20 kV plasma focus devices with respect to density and current distribution, and neutron and X-ray emission (IAEA-CN-35/E18-1(b))	441	<i>O.N. Krokhin</i> Summary of reactor systems (IAEA-CN-35/S4)	571
<i>G. Decker, B. Nahrath, T. Oppenländer, G. Pross, B. Rückle, H. Schmidt,</i> <i>M. Shakhatre, M. Trunk</i> Preliminary results of the 1-MJ plasma focus experiment (IAEA-CN-35/E18-2)	447	<i>K.-H. Schmitter</i> Chairmen of Sessions	575
<i>C. Maisonnier, J.P. Rager, C. Gurlan, M. Galanti, P.D. Morgan</i> Dynamics of a non-cylindrical Z-pinch and the particle acceleration mechanism (IAEA-CN-35/E18-3)	455	Secretariat of the Conference	576
<i>V.V. Vikhrev, K.G. Gureev, S.K. Zhdanov, V.M. Korzhavin,</i> <i>B.A. Trubnikov</i> Structure of current sheath and fast-particle beams in the focus experiment (IAEA-CN-35/E18-4)	471	List of Participants	577
<i>A. Bernard, A. Coudeville, J.P. Garçonnet, A. Jolas, J. De Mascureau,</i> <i>C. Nazet</i> Experimental verification of a theory of the current sheath in the plasma focus (IAEA-CN-35/E18-5(a))	483	Author Index	603
<i>M. Vargas, F. Gratton, J. Gratton, H. Bruzzone, H. Kelly</i> Magnetic tension and thickness in the current sheath dynamics (IAEA-CN-35/E18-5(b)) ...	489		
<i>F. Gratton, M. Vargas</i>			