

物理学論文選集 210

プラズマの加熱

萩原茂男 田中茂利 飯吉厚夫 責任編集

I. Neutral Beam Injection

1. T. H. Stix: Heating of Toroidal Plasmas by Neutral Injection
Plasma Phys. 14 (1972) 367-384..... 1
2. D. R. Sweetman: Ignition Condition in Tokamak Experiments and Role of
Neutral Injection Heating
Nucl. Fusion 13 (1973) 157-165.....19
3. J. G. Cordey, J. Hugill, J. W. M. Paul, J. Sheffield, E. Speth, P. E. Stott and
V. I. Tereshin: Injection of a Neutral Particle Beam into a Tokamak
Experiment and Theory
Nucl. Fusion 14 (1974) 441-444.....28
4. EQUIPE TFR: Heating by Injection of Fast Neutrals and Study of the Ion
Energy Balance in TFR
in *Plasma Physics and Controlled Nuclear Fusion Research*
(Proc. 6th Int. Conf. Berchtesgaden, 1976)
Vol. I (IAEA, Vienna, 1977) 69-84.....32
5. H. Eubank, R. Goldston, V. Arunasalam, M. Bitter, K. Bol, D. Boyd,
N. Bretz, J. -P. Bussac, S. Cohen, P. Colestock, S. Davis, D. Dimock,
H. Dylla, P. Efthimion, L. Grisham, R. Hawryluk, K. Hill, E. Hinnov,
J. Hosea, H. Hsuan, D. Johnson, G. Martin, S. Medley, E. Meservey,
N. Sauthoff, G. Schilling, J. Schivell, G. Schmidt, F. Stauffer,
L. Stewart, W. Stodiek, R. Stooksberry, J. Strachan, S. Suckewer,
H. Takahashi, G. Tait, M. Ulrickson, S. von Goeler, M. Yamada,
C. Tsai, W. Stirling, W. Dagenhart, W. Gardner, M. Menon
and H. Haselton: Neutral-Beam-Heating Results from the
Princeton Large Torus
Phys. Rev. Lett. 43 (1979) 270-27448
6. F. H. Coengsen, W. F. Cummins, C. Gormezano, B. G. Logan,
A. W. Molvik, W. E. Nexsen, T. C. Simonen, B. W.
Stallard and W. C. Turner: Startup of a Neutral-Beam-Sustained
Plasma in a Quasi-dc Magnetic Field

	Phys. Rev. Lett. 37 (1976) 143-146	53
II. Wave Heating		
II-A. Electron-Cyclotron Heating		
7.	T. H. Stix: Radiation and Absorption via Mode Conversion in an Inhomogeneous Collision-Free Plasma Phys. Rev. Lett. 15 (1965) 878-882	57
8.	A. G. Litvak, G. V. Permitin, E. V. Suvorov and A. A. Frajman: Electron-Cyclotron Heating of Plasma in Toroidal Systems Nucl. Fusion 17 (1977) 659-665	62
9.	V. V. Alikaev, Yu. N. Dnestrovskii, V. V. Parail and G. V. Pereverzev: Outlook for Electron-Cyclotron Heating in Large Tokamaks Sov. J. Plasma Phys. 3 (1977) 127-131	69
10.	I. Fidone, G. Granata, G. Ramponi and R. L. Meyer: Wave Absorption Near the Electron Cyclotron Frequency Phys. Fluids 21 (1978) 645-652	74
11.	V. V. Alikaev, G. A. Bobrovskii, V. I. Poznyak, K. A. Razumova, V. V. Sannikov, Yu. A. Sokolov and A. A. Shmarin: ECR Plasma Heating in the TM-3 Tokamak in Magnetic Fields up to 25 kOe Sov. J. Plasma Phys. 2 (1976) 212-215	82
12.	R. M. Gilgenbach, M. E. Read, K. E. Hackett, R. Lucey, B. Hui, V. L. Granatstein, K. R. Chu, A. C. England, C. M. Loring, O. C. Eldridge, H. C. Howe, A. G. Kulchar, E. Lazarus, M. Murakami and J. B. Wilgen: Heating at the Electron Cyclotron Frequency in the ISX-B Tokamak Phys. Rev. Lett. 44 (1980) 647-650	86
II-B. Lower Hybrid Heating		
7.	T. H. Stix: Radiation and Absorption via Mode Conversion in an Inhomogeneous Collision-Free Plasma Phys. Rev. Lett. 15 (1965) 878-882	57
13.	M. Brambilla: Slow-Wave Launching at the Lower Hybrid Frequency using a Phased Waveguide Array Nucl. Fusion 16 (1976) 47-54	90
14.	M. Brambilla: Electron Landau Damping of Lower Hybrid Waves Nucl. Fusion 18 (1978) 493-500	98
15.	T. Maekawa, Y. Terumichi and S. Tanaka: Numerical Study of Propagation and Damping of Lower Hybrid Wave in Tokamak Plasmas J. Phys. Soc. Jpn. 48 (1980) 965-972	106
16.	N. J. Fisch: Confining a Tokamak Plasma with rf-Driven Currents Phys. Rev. Lett. 41 (1978) 873-876	114
17.	T. Fujii, N. Fujisawa, A. Funahashi, T. Hirayama, T. Imai, S. Kasai, K. Kawakami, S. Konoshima, K. Kumagai, M. Maeno, T. Nagashima, A. Nagashima, M. Shimada, H. Shirakata, T. Shoji, T. Sugie, N.	

	Suzuki, K. Takahasi, H. Takeuchi, Y. Tanaka, K. Uehara, T. Yamamoto, T. Yamaguchi: Plasma Heating Near Lower-Hybrid Frequency in JFT-2 Tokamak in <i>Plasma Physics and Controlled Nuclear Fusion Research</i> (Proc. 7th Int. Conf. Innsbruck, 1978) Vol. I (IAEA, Vienna, 1979) 85-95	119
18.	J. J. Schuss, S. Fairfax, B. Kusse, R. R. Parker, M. Porkolab, D. Gwinn, I. Hutchinson, E. S. Marmor, D. Overskei, D. Pappas, L. S. Scaturro and S. Wolfe: Lower-Hybrid-Wave Heating in the Alcator-A Tokamak Phys. Rev. Lett. 43. (1979) 274-278	130
II-C. Ion Cyclotron Heating		
19.	T. H. Stix: Fast-Wave Heating of a Two-Component Plasma Nucl. Fusion 15 (1975) 737-754	135
20.	D. G. Swanson: Mode Conversion and Tunneling at the Two-Ion Hybrid Resonance Phys. Rev. Lett. 36 (1976) 316-319	153
21.	J. Adam, M. Chance, H. Eubank, W. Getty, E. Hinnov, W. Hooke, J. Hosea, F. Jobs, F. Perkins, R. Sinclair, J. Sperling and H. Takahashi: Wave Generation and Heating in the ST-Tokamak at the Fundamental and Harmonic Ion Cyclotron Frequencies in <i>Plasma Physics and Controlled Nuclear Fusion Research</i> (Proc. 5th Int. Conf. Tokyo, 1974) Vol. I (IAEA, Vienna, 1975) 65-73	157
22.	V. L. Vdovin, N. V. Shapotkovskii and V. D. Rusanov: Wave Generation and Heating of Ions at Ion Cyclotron Frequencies in Tokamak-Device TM-1-Vch International Meeting on Heating of Toroidal Plasma (Grenoble) Vol. II (1976) 349-357	166
23.	J. Jacquinet, B. D. McVey and J. E. Scharer: Mode Conversion of the Fast Magnetosonic Wave in a Deuterium-Hydrogen Tokamak Plasma Phys. Rev. Lett. 39 (1977) 88-91	175
24.	J. Hosea, S. Bernabei, P. Colestock, S. L. Davis, P. Efthimion, R. J. Goldston, D. Hwang, S. S. Medly, D. Mueller, J. Strachan and H. Thompson: Fast-Wave Heating of Two-Ion Plasmas in the Princeton Large Torus through Minority-Cyclotron-Resonance Damping Phys. Rev. Lett. 43 (1979) 1802-1806	179
II-D. Alfvén Wave Heating		
25.	L. Chen and A. Hasegawa: Plasma Heating by Spatial Resonance of Alfvén Wave Phys. Fluids 17 (1974) 1399-1403	184
26.	A. Hasegawa and L. Chen: Kinetic Process of Plasma Heating Due to	

	Alfvén Wave Excitation	
	Phys. Rev. Lett. 35 (1975) 370-373	189
27.	T. Obiki, T. Mutoh, S. Adachi, A. Sasaki, A. Iiyoshi and K. Uo: Alfvén-Wave Heating Experiment in the Heliotron-D	
	Phys. Rev. Lett. 39 (1977) 812-815	193
	II-E Magnetic Pumping Heating	
28.	E. Canobbio: Neoclassical Theory of Landau Damping and Ion and Electron Transit-Time Magnetic Pumping (TTMP) in Toroidal Geometry	
	Nucl. Fusion 12 (1972) 561-568	197
29.	R. Bardet, M. Bernard, G. Briffod, M. Clement, A. Gauthier, M. Gregoire, P. Grelot, G. Haste, F. Parlange, D. Pinet, E. Porrot, G. Rey, B. Taquet and J. Weisse: Transit Time Magnetic Pumping in the Petula Tokamak	
	in <i>Plasma Physics and Controlled Nuclear Fusion Research</i> (Proc. 7th Int. Conf. Innsbruck, 1978) Vol. II (IAEA, Vienna, 1979) 545-557	205
	文献リスト	218