

Subject index

Absorber Materials

- Plasma deposition of boron films with high growth rate and efficiency using carborane, O.I. Buzhinskij, V.G. Otroshchenko, D.G. Whyte, M. Baldwin, R.W. Conn, R.P. Doerner, R. Seraydarian, S. Luckhardt, H. Kugel and W.P. West 313–316 (2003) 214

Adsorption

- Plasma deposition of boron films with high growth rate and efficiency using carborane, O.I. Buzhinskij, V.G. Otroshchenko, D.G. Whyte, M. Baldwin, R.W. Conn, R.P. Doerner, R. Seraydarian, S. Luckhardt, H. Kugel and W.P. West 313–316 (2003) 214

Influence of thin alien layers on hydrogen reflection and trapping by PFM, A.V. Golubeva, V.A. Kurnaev, D.V. Levchuk and N.N. Trifonov

313–316 (2003) 219

- Fluid simulation on pellet ablation with atomic process, R. Ishizaki, N. Nakajima, M. Okamoto and P.B. Parks 313–316 (2003) 579

Analytical Instruments and Methods (*not listed elsewhere*)

- Surface temperature measurements on Tokamak target plates with two types of infra red fibres, R. Reichle, C. Pocheau, E. Delchambre, L. Ducobu, F. Faisse, D. Guilhem, M. Jouve, D. Moulin, H. Roche and E. Thomas 313–316 (2003) 711
- Two-dimensional distribution of divertor radiation in JT-60U, S. Konoshima, H. Tamai, Y. Miura, S. Higashijima, H. Kubo, S. Sakurai, K. Shimizu, T. Takizuka, Y. Koide, T. Hatae and H. Takenaga 313–316 (2003) 888

Beryllium, Beryllium Alloys and Compounds

- Some peculiarities in the behavior of Be surfaces under bombardment by ions from a deuterium plasma, A.F. Bardamid, A.I. Belyayeva, V.N. Bondarenko, A.A. Galuza, V.V. Gann, L. Jacobson, V.G. Konovalov, D.V. Orlovsikij, I.I. Papirov, I.V. Ryzhkov, A.N. Shapoval, A.F. Shtan, S.I. Solo-

dovchenko, A.A. Vasilev and V.S.

Voitsevna 313–316 (2003) 112

- Beryllium and carbon films in JET following D-T operation, M. Rubel, J.P. Coad, N. Bekris, S.K. Erents, D. Hole, G.F. Matthews, R.-D. Penzhorn and Contributors to EFDA-JET work programme 313–316 (2003) 321

Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388

- Erosion/deposition in JET during the period 1999–2001, J.P. Coad, P. Andrew, D.E. Hole, S. Lehto, J. Likonen, G.F. Matthews, M. Rubel and Contributors to the EFDA-JET work programme 313–316 (2003) 419

Breeding Materials for Fusion

- Impact of armor materials on tritium breeding ratio in the fusion reactor blanket, S. Sato and T. Nishitani 313–316 (2003) 690

Carbon

- Helical divertor operation and erosion/deposition at target surfaces in LHD, A. Sagara, S. Masuzaki, T. Morisaki, S. Morita, H. Funaba, M. Goto, Y. Nakamura, K. Nishimura, N. Noda, M. Shoji, H. Suzuki, A. Takayama, A. Komori, N. Ohyabu, O. Motojima, K. Morita, K. Ohya, J.P. Sharpe and LHD Experimental Group 313–316 (2003) 1

- IFE chamber walls: requirements, design options, and synergy with MFE plasma facing components, A.R. Raffray, D. Haynes and F. Najmabadi 313–316 (2003) 23

- Molecular dynamics simulations of CH₃ sticking on carbon first wall structures, P. Träskelin, E. Salonen, K. Nordlund, A.V. Krasheninnikov, J. Keinonen and C.H. Wu 313–316 (2003) 52

- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56

- Imitation of deuterium plasma interaction with the surface of carbon

- materials in gaseous divertor conditions, S.N. Korshunov, M.I. Guseva, V.M. Gureev, L.S. Danelyan, B.I. Khripunov, B.N. Kolbasov, V.S. Kulikauskas, A.M. Litnovsky, Yu.V. Martynenko and V.B. Petrov 313–316 (2003) 87
- Simulation study of material mixing process on tungsten surfaces at elevated temperatures due to boundary plasma exposure and its influence on plasma wall interactions, R. Kawakami and K. Ohya 313–316 (2003) 107
- PSI issues toward steady state plasmas in the HT-7 tokamak, B. Wan, J. Li, J. Zhao, J. Chen, Y. Zhao and HT-7 Team 313–316 (2003) 127
- Selection of candidate doped graphite materials as plasma facing components for HT-7U device, Q.G. Guo, J.G. Li, N. Noda, Y. Kubota, J.L. Chen, Zh.J. Liu, L. Liu and J.R. Song 313–316 (2003) 144
- Chemical erosion of DIII-D divertor tile specimens, P.B. Wright, J.W. Davis, R.G. Macaulay-Newcombe, C.G. Hamilton and A.A. Haasz 313–316 (2003) 158
- Molecular dynamics calculation of carbon/hydrocarbon reflection coefficients on a hydrogenated graphite surface, D.A. Alman and D.N. Ruzic 313–316 (2003) 182
- Surface analysis and a novel application of carbon sheet pump in the GAMMA 10 tandem mirror, Y. Ishimoto, Y. Nakashima, A. Sagara, K. Morita, J. Yuhara, S. Kobayashi, M. Yoshikawa and K. Yatsu 313–316 (2003) 194
- Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique, Y. Oya, Y. Hirohata, Y. Morimoto, H. Yoshida, H. Kodama, K. Kizu, J. Yagyu, Y. Gotoh, K. Masaki, K. Okuno, T. Tanabe, N. Miya, T. Hino and S. Tanaka 313–316 (2003) 209
- Influence of thin alien layers on hydrogen reflection and trapping by PFM, A.V. Golubeva, V.A. Kurnaev, D.V. Levchuk and N.N. Trifonov 313–316 (2003) 219
- Ablation rate estimation of inertial fusion reactor candidate material with intense ion beam and X-ray, K. Kasuya, A. Kasamatsu, Y. Kinoshita, T. Kamimura, A. Saiki, T.J. Renk and C.L. Olson 313–316 (2003) 235
- Re-emission of hydrogen implanted into graphite by helium ion bombardment, B. Tsuchiya, K. Morita, S. Yamamoto, S. Nagata, N. Ohtsu, T. Shikama and H. Naramoto 313–316 (2003) 274
- Characteristics of lithium thin films under deuterium ion implantation, Y. Furuyama, K. Ito, S. Dohi, A. Taniike and A. Kitamura 313–316 (2003) 288
- Erosion of high-Z metals with typical impurity ions, K. Schmid and J. Roth 313–316 (2003) 302
- Beryllium and carbon films in JET following D-T operation, M. Rubel, J.P. Coad, N. Bekris, S.K. Erents, D. Hole, G.F. Matthews, R.-D. Penzhorn and Contributors to EFDA-JET work programme 313–316 (2003) 321
- Erosion in the DIII-D divertor by neon-detached plasmas, W.R. Wampler, D.G. Whyte, C.P.C. Wong and W.P. West 313–316 (2003) 333
- On the formation of a-C:D layers and parasitic plasmas underneath the roof baffle of the ASDEX Upgrade divertor, V. Rohde and M. Mayer 313–316 (2003) 337
- Chemical erosion by deuterium of atomically dispersed doped hydrocarbon layers, M. Balden, J. Roth, E.d.J. Pardo and A. Wiltner 313–316 (2003) 348
- Chemical erosion behaviour of carbon materials in fusion devices, V. Philippis, M. Stamp, A. Pospieszczyk, A. Huber, A. Kirschner and E. Vietzke 313–316 (2003) 354
- Sputtering of carbon–tungsten mixed materials by low energy deuterium, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama, M. Dairaku and M. Akiba 313–316 (2003) 360
- Analyses of erosion and re-deposition layers on graphite tiles used in the W-shaped divertor region of JT-60U, Y. Gotoh, J. Yagyu, K. Masaki, K. Kizu, A. Kaminaga, K. Kodama, T. Arai, T. Tanabe and N. Miya 313–316 (2003) 370
- Erosion and deposition at the ALT-II limiter of TEXTOR, M. Mayer, P. Wienhold, D. Hildebrandt and W. Schneider 313–316 (2003) 377
- Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388
- Erosion and erosion products of tungsten and carbon-based materials irradiated by a high energy electron beam, X. Liu, N. Yoshida, N. Noda, F. Zhang, Z. Xu and Y. Liu 313–316 (2003) 399
- Molecular dynamics studies of the sputtering of divertor materials, E. Salonen, K. Nordlund, J. Keinonen and C.H. Wu 313–316 (2003) 404
- Erosion of CFC under simultaneous bombardment by helium and deuterium ions, V. Bandourko, R. Jimbou, K. Nakamura, M. Akiba and Y. Okumura 313–316 (2003) 413
- Erosion/deposition in JET during the period 1999–2001, J.P. Coad, P. Andrew, D.E. Hole, S. Lehto, J. Likonen

- nen, G.F. Matthews, M. Rubel and Contributors to the EFDA-JET work-programme 313–316 (2003) 419
- Advances in the modeling of chemical erosion/redeposition of carbon divertors and application to the JET tritium codeposition problem, J.N. Brooks, A. Kirschner, D.G. Whyte, D.N. Ruzic and D.A. Alman 313–316 (2003) 424
- Characterisation of deposited hydrocarbon layers below the divertor and in the pumping ducts of ASDEX Upgrade, M. Mayer, V. Rohde, A. von Keudell and ASDEX Upgrade Team 313–316 (2003) 429
- Long term behaviour of material erosion and deposition on the vessel wall and remote areas of TEXTOR, J. von Seggern, P. Wienhold, T. Hirai, V. Philipps and H.G. Esser 313–316 (2003) 439
- Modelling of the transport of methane and higher hydrocarbons in fusion devices, A. Kirschner, J.N. Brooks, V. Philipps, P. Wienhold, A. Pospieszczyk, R.K. Janev and U. Samm 313–316 (2003) 444
- Transport and condensation of soft a-C:H film thermal decomposition products, A.E. Gorodetsky, R.Kh. Zalavutdinov, I.I. Arkhipov, V.Kh. Alimov, A.P. Zakharov, S.P. Vnukov, V.L. Bukhovets and I.G. Varshavskaya 313–316 (2003) 460
- Tritium retention of plasma facing components in tokamaks, T. Tanabe, N. Bekris, P. Coad, C.H. Skinner, M. Glugla and N. Miya 313–316 (2003) 478
- Tritium removal from JET and TFTR tiles by a scanning laser, C.H. Skinner, N. Bekris, J.P. Coad, C.A. Gentile and M. Glugla 313–316 (2003) 496
- Tritium depth profiles in 2D and 4D CFC tiles from JET and TFTR, N. Bekris, C.H. Skinner, U. Berndt, C.A. Gentile, M. Glugla and B. Schweigl 313–316 (2003) 501
- Tritium distribution on the surface of plasma facing carbon tiles used in JET, K. Sugiyama, K. Miyasaka, T. Tanabe, M. Glugla, N. Bekris and P. Coad 313–316 (2003) 507
- Supersonic gas injection on Tore Supra, B. Pégourié, E. Tsitrone, R. Dejarnac, J. Bucalossi, G. Martin, J. Gunn, D. Frigione, D. Reiter, P. Ghendrih and C. Clément 313–316 (2003) 539
- Hydrogen retention in graphite and carbon materials under a fusion reactor environment, H. Atsumi 313–316 (2003) 543
- Ablative removal of codeposits on JT-60 carbon tiles by an excimer laser, W.M. Shu, Y. Kawakubo, K. Masaki and M.F. Nishi 313–316 (2003) 584
- Correlation between annealing effects of damage and implanted deuterium re-lease from graphite, Y. Morimoto and K. Okuno 313–316 (2003) 595
- Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk, S. Cernusca, HP. Winter and F. Aumayr 313–316 (2003) 670
- Surface temperature measurements on Tokamak target plates with two types of infra red fibres, R. Reichle, C. Pochau, E. Delchambre, L. Ducobu, F. Faisse, D. Guilhem, M. Jouve, D. Moulin, H. Roche and E. Thomas 313–316 (2003) 711
- Thermographic observation of the divertor target plates in the stellarators W7-AS and W7-X, D. Hildebrandt, F. Gadelmeier, P. Grigull, K. McCormick, D. Naujoks, D. Sünder and W7-AS Team 313–316 (2003) 738
- An overview of JET edge modelling activities, D.P. Coster, X. Bonnin, G. Corrigan, R. Dejarnac, M. Fenstermacher, W. Fundamenski, A. Geier, J. Hogan, A. Kallenbach, A. Kirschner, K. Krieger, A. Loarte, G. Matthews, R.A. Pitts, G. Porter, R. Pugno, D. Reiser, D. Reiter, S. Sipila, J. Spence, P.C. Stangeby, E. Tsitrone, D. Tskhakaya, M. Wischmeier and Contributors to the EFDA-JET work programme 313–316 (2003) 868
- Carbon sources in the DIII-D tokamak, R.C. Isler, R.J. Colchin, N.H. Brooks, T.E. Evans, W.P. West and D.G. Whyte 313–316 (2003) 873
- Interpretive modeling of simple-as-possible-plasma discharges on DIII-D using the OEDGE code, P.C. Stangeby, J.D. Elder, J.A. Boedo, B. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, R.C. Isler, L.L. Lao, S. Lisgo, G.D. Porter, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 883
- Tomographic reconstruction of 2D line radiation distribution in the JET MkIIIB divertor, A. Huber, P. Coad, D. Coster, L.C. Ingesson, K. Itami, S. Jachmich, A. Kirschner, M. Lehnen, G.F. Matthews, Ph. Mertens, V. Philipps, A. Pospieszczyk, B. Schweer, G. Sergienko, M. Stamp and Contributors to the EFDA-JET programme 313–316 (2003) 925
- Analysis of the progress to detachment in the divertor of the MAST tokamak, A. Tabasso, J. Dowling, J.-W. Ahn, G. Cunningham, A. Kirk, G. McArdele, M. Price and The MAST Team 313–316 (2003) 936
- Wall conditioning and power balance for spheromak plasmas in SSPX, D.N.

- Hill, R.D. Wood, R. Bulmer, H.S. McLean, D. Ryutov, B.W. Stallard and S. Woodruff 313–316 (2003) 941
- Confinement and gas fueling in LHD limiter discharges, K. Nishimura, K. Kawahata, K. Narihara, T. Morisaki, S. Masuzaki, S. Sakakibara, K. Tanaka and LHD Experimental Group 313–316 (2003) 952
- On the measurement of molecular particle fluxes in fusion boundary plasmas, S. Brezinsek, P.T. Greenland, Ph. Mertens, A. Pospieszczyk, D. Reiter, U. Samm, B. Schweer and G. Sergienko 313–316 (2003) 967
- Heat flux scaling experiments in NSTX, R. Maingi, H.W. Kugel, C.J. Lasnier, A.L. Roquemore, V.A. Soukhanovskii, C.E. Bush and The NSTX Team 313–316 (2003) 1005
- Deuterium to helium plasma-wall change-over experiments in the JET MkII-gas box divertor, D.L. Hillis, T. Loarer, J. Bucalossi, A. Pospieszczyk, W. Fundamenski, G. Matthews, A. Meigs, P. Morgan, V. Phillips, R. Pitts, M. Stamp, M. von Hellermann and EFDA-JET workprogramme contributors 313–316 (2003) 1061
- High time-resolved, 2D imaging of type-I ELMs in DIII-D using a image-intensified CID camera, M. Groth, M.E. Fenstermacher, J.A. Boedo, N.H. Brooks, D.S. Gray, C.J. Lasnier, A.W. Leonard, G.D. Porter and J.G. Watkins 313–316 (2003) 1071
- Flow measurements in the scrape-off layer of Alcator C-Mod using impurity plumes, S. Gangadhara and B. LaBombard 313–316 (2003) 1167
- Impurity generation and suppression during IBW heating in HT-7, J. Li, Y.P. Zhao, B.N. Wan, J.Y. Zhao, T. Watari, T. Seki and HT-7 team 313–316 (2003) 1188
- Radiation enhancement and impurity behavior in JT-60U reversed shear discharges, H. Kubo, S. Sakurai, S. Higashijima, H. Takenaga, K. Itami, S. Konoshima, T. Nakano, Y. Koide, N. Asakura, K. Shimizu, T. Fujita and K.W. Hill 313–316 (2003) 1197
- Unified analytic representation of hydrocarbon impurity collision cross-sections, R.K. Janev and D. Reiter 313–316 (2003) 1202
- Comparison of carbon and main ion radiation profiles in matched helium and deuterium plasmas in JET, M.E. Fenstermacher, K.D. Lawson, G.D. Porter, S.K. Erents, C. Ingesson, G.F. Matthews, G.M. McCracken, V. Phillips, R.A. Pitts, M.F. Stamp and Contributors to the EFDA-JET Workprogramme 313–316 (2003) 1206
- Methane penetration in DIII-D ELMing H-mode plasmas, W.P. West, C.J. Lasnier, D.G. Whyte, R.C. Isler, T.E. Evans, G.L. Jackson, D. Rudakov, M.R. Wade and J. Strachan 313–316 (2003) 1211
- Cavities (includes Voids, Holes)**
- Incident ion energy dependence of bubble formation on tungsten surface with low energy and high flux helium plasma irradiation, D. Nishijima, M.Y. Ye, N. Ohno and S. Takamura 313–316 (2003) 97
- Ceramics (not listed elsewhere)**
- Ablation rate estimation of inertial fusion reactor candidate material with intense ion beam and X-ray, K. Kasuya, A. Kasamatsu, Y. Kinoshita, T. Kamimura, A. Saiki, T.J. Renk and C.L. Olson 313–316 (2003) 235
- Evaluation of the integrity of divertor models of tungsten or SiC/SiC composites joined with copper, A. Kurumada, Y. Imamura, Y. Tomota, T. Oku, Y. Kubota and N. Noda 313–316 (2003) 245
- Chemical Reactions (includes Electrochemical and Thermochemical Reactions)**
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56
- Chemical erosion of DIII-D divertor tile specimens, P.B. Wright, J.W. Davis, R.G. Macaulay-Newcombe, C.G. Hamilton and A.A. Haasz 313–316 (2003) 158
- Chemical erosion by deuterium of atomically dispersed doped hydrocarbon layers, M. Balden, J. Roth, E.d.J. Pardo and A. Wiltner 313–316 (2003) 348
- Modeling of hydrocarbon species in ECR methane plasmas, K. Matyash, R. Schneider, A. Bergmann, W. Jacob, U. Fantz and P. Pecher 313–316 (2003) 434
- Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk, S. Cernusca, HP. Winter and F. Aumayr 313–316 (2003) 670
- Unified analytic representation of hydrocarbon impurity collision cross-sections, R.K. Janev and D. Reiter 313–316 (2003) 1202
- Coatings and Coated Particles**
- Arcing at B₄C-covered limiters exposed to a SOL-plasma, M. Laux, W. Schneider, P. Wienhold, B. Jüttner, A. Huber, M. Balden, J. Linke, H. Kostial, M. Mayer, M. Rubel, A. Herrmann,

- A. Pospieszczyk, S. Jachmich, B. Schweer, D. Hildebrandt and H. Bolt 313–316 (2003) 62
- The longer life and high performance of lithium containing coatings developed by ICRF in the HT-7 superconducting tokamak, J.L. Chen, J.G. Li, B.N. Wan, Y.P. Zhao, X.D. Zhang, X.M. Gu, X.M. Wang, S.F. Li, N.C. Luo, C.F. Li, Q. Zhou, Z.W. Wu and HT-7 team 313–316 (2003) 140
- Boronization effects using deuterated-decarborane ($B_{10}D_{14}$) in JT-60U, T. Nakano, S. Higashijima, H. Kubo, J. Yagyu, T. Arai, N. Asakura and K. Itami 313–316 (2003) 149
- Plasma deposition of boron films with high growth rate and efficiency using carborane, O.I. Buzhinskij, V.G. Otroschenko, D.G. Whyte, M. Baldwin, R.W. Conn, R.P. Doerner, R. Seraydarian, S. Luckhardt, H. Kugel and W.P. West 313–316 (2003) 214
- Influence of thin alien layers on hydrogen reflection and trapping by PFM, A.V. Golubeva, V.A. Kurnaev, D.V. Levchuk and N.N. Trifonov 313–316 (2003) 219
- B_4C -limiter experiments at TEXTOR, A. Pospieszczyk, B. Schweer, V. Philipps, A. Huber, G. Sergienko, U. Samm, H. Reimer, M. Freisinger, M. Rubel, A. Herrmann, S. Kötterl, M. Laux, H. Renner and H. Bolt 313–316 (2003) 223
- Effects of wall boron coating on FTU plasma operations, M.L. Apicella, G. Mazzitelli, G. Apruzzese, G. Bracco, B. Esposito, L. Gabellieri, H. Kroegler, M. Leigheb, G. Maddaluno, M. Marinucci, M. Mattioli, V.P. Ridolfini, L. Pieroni, M. Romanelli and FTU team 313–316 (2003) 269
- Dramatic reduction of chemical sputtering of graphite under intercalation of lithium, H. Yagi, H. Toyoda and H. Sugai 313–316 (2003) 284
- Impact of wall conditioning and gas fuelling on the enhanced confinement modes in TJ-II, F.L. Tabarés, D. Tafalla, R. Balbin, B. Brañas, T. Estrada, I. García-Cortés, F. Medina and M.A. Ochando 313–316 (2003) 839
- Characteristics of boundary plasmas after the removal of divertor baffle plates and boronization on JFT-2M, H. Kawashima, S. Sengoku, K. Tsuzuki, H. Ogawa and H. Kimura 313–316 (2003) 1338
- A. Kaminaga, K. Kodama, T. Arai, T. Tanabe and N. Miya 313–316 (2003) 370
- Deformation**
- Characteristics of lithium thin films under deuterium ion implantation, Y. Furuyama, K. Ito, S. Dohi, A. Taniike and A. Kitamura 313–316 (2003) 288
- Fluid simulation on pellet ablation with atomic process, R. Ishizaki, N. Nakajima, M. Okamoto and P.B. Parks 313–316 (2003) 579
- Diffusion**
- Simulation study of material mixing process on tungsten surfaces at elevated temperatures due to boundary plasma exposure and its influence on plasma wall interactions, R. Kawakami and K. Ohya 313–316 (2003) 107
- Damage process of resolidified part on CVD-W coated molybdenum under high heat load, S. Tamura, K. Tokunaga and N. Yoshida 313–316 (2003) 250
- Erosion of high-Z metals with typical impurity ions, K. Schmid and J. Roth 313–316 (2003) 302
- Tritium depth profiles in 2D and 4D CFC tiles from JET and TFTR, N. Bekris, C.H. Skinner, U. Berndt, C.A. Gentile, M. Glugla and B. Schweigle 313–316 (2003) 501
- Hydrogen retention in graphite and carbon materials under a fusion reactor environment, H. Atsumi 313–316 (2003) 543
- Tritium permeation study through tungsten and nickel using pure tritium ion beam, H. Nakamura, W. Shu, T. Hayashi and M. Nishi 313–316 (2003) 679
- Intermittent convection in the boundary of DIII-D, J.A. Boedo, D.L. Rudakov, R.J. Colchin, R.A. Moyer, S. Krasheninnikov, D.G. Whyte, G.R. McKee, G. Porter, M.J. Schaffer, P.C. Stangeby, W.P. West, S.L. Allen and A.W. Leonard 313–316 (2003) 813
- Accumulation of impurities in advanced scenarios, R. Dux, C. Giroud, R. Neu, A.G. Peeters, J. Stober, K.-D. Zastrow, Contributors to the EFDA-JET Workprogramme and ASDEX Upgrade Team 313–316 (2003) 1150
- The effect of magnetic field modification on heavy ion movement in advanced stellarators and helical devices, A. Shishkin, O. Shyshkin, H. Wobig, Y. Igitkhanov, O. Motojima, S. Morimoto, K. Yamazaki and S. Inagaki 313–316 (2003) 1192

Composite Materials

Analyses of erosion and re-deposition layers on graphite tiles used in the W-shaped divertor region of JT-60U, Y. Gotoh, J. Yagyu, K. Masaki, K. Kizu,

Divertor Materials

Helical divertor operation and erosion/deposition at target surfaces in LHD, A. Sagara, S. Masuzaki, T. Morisaki, S. Morita, H. Funaba, M. Goto,

- Y. Nakamura, K. Nishimura, N. Noda, M. Shoji, H. Suzuki, A. Takayama, A. Komori, N. Ohyabu, O. Motojima, K. Morita, K. Ohya, J.P. Sharpe and LHD Experimental Group 313–316 (2003) 1
- Blister formation on tungsten surface under low energy and high flux hydrogen plasma irradiation in NAGDIS-I, M.Y. Ye, H. Kanehara, S. Fukuta, N. Ohno and S. Takamura 313–316 (2003) 72
- Molecular dynamics simulations of the effect of deuterium on tungsten erosion by oxygen, I.S. Landman and H. Wuerz 313–316 (2003) 77
- Imitation of deuterium plasma interaction with the surface of carbon materials in gaseous divertor conditions, S.N. Korshunov, M.I. Guseva, V.M. Gureev, L.S. Danelyan, B.I. Khripunov, B.N. Kolbasov, V.S. Kulikauskas, A.M. Litnovsky, Yu.V. Martynenko and V.B. Petro 313–316 (2003) 87
- Incident ion energy dependence of bubble formation on tungsten surface with low energy and high flux helium plasma irradiation, D. Nishijima, M.Y. Ye, N. Ohno and S. Takamura 313–316 (2003) 97
- New results from the tungsten programme at ASDEX Upgrade, R. Neu, R. Dux, A. Geier, H. Greuner, K. Krieger, H. Maier, R. Pugno, V. Rohde, S.W. Yoon and ASDEX Upgrade Team 313–316 (2003) 116
- Chemical erosion of DIII-D divertor tile specimens, P.B. Wright, J.W. Davis, R.G. Macaulay-Newcombe, C.G. Hamilton and A.A. Haasz 313–316 (2003) 158
- Molecular dynamics calculation of carbon/hydrocarbon reflection coefficients on a hydrogenated graphite surface, D.A. Alman and D.N. Ruzic 313–316 (2003) 182
- Impurity effects and temperature dependence of D retention in single crystal tungsten, M. Poon, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 313–316 (2003) 199
- Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique, Y. Oya, Y. Hirohata, Y. Morimoto, H. Yoshida, H. Kodama, K. Kizu, J. Yagyu, Y. Gotoh, K. Masaki, K. Okuno, T. Tanabe, N. Miya, T. Hino and S. Tanaka 313–316 (2003) 209
- Influence of thin alien layers on hydrogen reflection and trapping by PFM, A.V. Golubeva, V.A. Kurnaev, D.V. Levchuk and N.N. Trifonov 313–316 (2003) 219
- Investigation of the trapped helium and hydrogen ions in plasma facing materials for LHD using thermal desorption spectrometer and alternating glow discharge cleanings, Y. Kubota, N. Noda, A. Sagara, H. Suzuki, S. Masuzaki, K. Tokunaga, T. Satow, K. Yamazaki and O. Motojima 313–316 (2003) 239
- Evaluation of the integrity of divertor models of tungsten or SiC/SiC composites joined with copper, A. Kurumada, Y. Imamura, Y. Tomota, T. Oku, Y. Kubota and N. Noda 313–316 (2003) 245
- Dramatic reduction of chemical sputtering of graphite under intercalation of lithium, H. Yagi, H. Toyoda and H. Sugai 313–316 (2003) 284
- Erosion in the DIII-D divertor by neon-detached plasmas, W.R. Wampler, D.G. Whyte, C.P.C. Wong and W.P. West 313–316 (2003) 333
- Experimental modeling of transport and deposition of hydrocarbon radicals on ITER-FEAT cold trap, I.I. Arkhipov, V.L. Bukhovets, A.K. Buryak, G. Federici, A.E. Gorodetsky, C. Ibbott, D.A. Komarov, A.N. Makhankov, A. Markin, I.V. Mazul, R. Tivey, I.G. Varshavskay, S.P. Vnukov, A.P. Zakharov, A.V. Ulianov and R.Kh. Zalavutdinov 313–316 (2003) 342
- Sputtering of carbon–tungsten mixed materials by low energy deuterium, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama, M. Dairaku and M. Akiba 313–316 (2003) 360
- Analyses of erosion and re-deposition layers on graphite tiles used in the W-shaped divertor region of JT-60U, Y. Gotoh, J. Yagyu, K. Masaki, K. Kizu, A. Kaminaga, K. Kodama, T. Arai, T. Tanabe and N. Miya 313–316 (2003) 370
- Numerical simulation of CFC and tungsten target erosion in ITER-FEAT divertor, V. Filatov 313–316 (2003) 393
- Erosion of CFC under simultaneous bombardment by helium and deuterium ions, V. Bandourko, R. Jimbou, K. Nakamura, M. Akiba and Y. Okumura 313–316 (2003) 413
- Non-destructive tritium measurements of Mk IIA divertor tile by BIXS, M. Matsuyama, N. Bekris, M. Glugla, N. Noda, V. Philipps and K. Watanabe 313–316 (2003) 491
- Tritium depth profiles in 2D and 4D CFC tiles from JET and TFTR, N. Bekris, C.H. Skinner, U. Berndt, C.A. Gentile, M. Glugla and B. Schweigl 313–316 (2003) 501
- Role of neutrals in core fueling and pedestal structure in H-mode DIII-D discharges, N.S. Wolf, T.W. Petrie, G.D. Porter, T.D. Rognlien, R.J. Groebner and M.A. Mahdavi 313–316 (2003) 564
- Ablative removal of codeposits on JT-60 carbon tiles by an excimer laser, W.M.

- Shu, Y., Kawakubo, K., Masaki and M.F. Nishi 313–316 (2003) 584
- Liquid lithium surface research and development, B.I. Khrapunov, V.B. Petrov, V.V. Shapkin, A.S. Pleshakov, A.S. Rupyshev, N.V. Antonov, A.M. Litnovsky, D.Yu. Prokhorov, Yu.S. Shpansky, V.A. Evtikhin 313–316 (2003) 619
- Temperature dependence of liquid-lithium sputtering from oblique 700 eV He ions, J.P. Allain, M.D. Coventry and D.N. Ruzic 313–316 (2003) 641
- Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk, S. Cernusca, HP. Winter and F. Aumayr 313–316 (2003) 670
- Experimental evaluation of space charge limited emission current from tungsten surface in high density helium plasma, Y. Hagino, N. Ohno, S. Takamura and M.Y. Ye 313–316 (2003) 675
- Influence of plasma pressure gradient on melt layer macroscopic erosion of metal targets in disruption simulation experiments, V.I. Tereshin, I.E. Garusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.A. Makhraj, D.G. Solyakov and H. Wuerz 313–316 (2003) 685
- Thermographic observation of the divertor target plates in the stellarators W7-AS and W7-X, D. Hildebrandt, F. Gadelmeier, P. Grigull, K. McCormick, D. Naujoks, D. Sünder and W7-AS Team 313–316 (2003) 738
- Stationary and transient divertor heat flux profiles and extrapolation to ITER, A. Herrmann, T. Eich, S. Jachmich, M. Laux, P. Andrew, A. Bergmann, A. Loarte, G. Matthews, J. Neuhauser, ASDEX Upgrade team and Contributors to EFDA-JET work programme 313–316 (2003) 759
- Narrow power profiles seen at JET and their relation to ion orbit losses, W. Fundamenski, S. Sipilä, T. Eich, T. Kiviniemi, T. Kurki-Suonio, G. Matthews, V. Riccardo and Contributors to the EFDA-JET work programme 313–316 (2003) 787
- An overview of JET edge modelling activities, D.P. Coster, X. Bonnin, G. Corrigan, R. Dejarnac, M. Fenstermacher, W. Fundamenski, A. Geier, J. Hogan, A. Kallenbach, A. Kirschner, K. Krieger, A. Loarte, G. Matthews, R.A. Pitts, G. Porter, R. Pugno, D. Reiser, D. Reiter, S. Sipila, J. Spence, P.C. Stangeby, E. Tsitrone, D. Tskhakaya, M. Wischmeier and Contributors to the EFDA-JET work programme 313–316 (2003) 868
- Carbon sources in the DIII-D tokamak, R.C. Isler, R.J. Colchin, N.H. Brooks, T.E. Evans, W.P. West and D.G. Whyte 313–316 (2003) 873
- Power deposition measurements in deuterium and helium discharges in JET MKIIGB divertor by IR-thermography, T. Eich, A. Herrmann, P. Andrew, A. Loarte and Contributors to the EFDA-JET Program 313–316 (2003) 919
- Analysis of the progress to detachment in the divertor of the MAST tokamak, A. Tabasso, J. Dowling, J.-W. Ahn, G. Cunningham, A. Kirk, G. McArdele, M. Price and The MAST Team 313–316 (2003) 936
- ELM energy and particle losses and their extrapolation to burning plasma experiments, A. Loarte, G. Saibene, R. Sartori, M. Becoulet, L. Horton, T. Eich, A. Herrmann, M. Laux, G. Matthews, S. Jachmich, N. Asakura, A. Chankin, A. Leonard, G. Porter, G. Federici, M. Shimada, M. Sugihara and G. Janeschitz 313–316 (2003) 962
- Deuterium to helium plasma-wall change-over experiments in the JET MkII-gas box divertor, D.L. Hillis, T. Loarer, J. Bucalossi, A. Pospieszczyk, W. Fundamenski, G. Matthews, A. Meigs, P. Morgan, V. Phillips, R. Pitts, M. Stamp and M. von Hellermann, EFDA-JET workprogramme contributors 313–316 (2003) 1061
- A new plasma condensation phenomenon in the W7-AS island divertor, U. Wenzel, K. McCormick, N. Ramasubramanian, P. Grigull and R. König 313–316 (2003) 1098
- The effect of magnetic field modification on heavy ion movement in advanced stellarators and helical devices, A. Shishkin, O. Shishkin, H. Wobig, Y. Igitkhanov, O. Motojima, S. Morimoto, K. Yamazaki and S. Inagaki 313–316 (2003) 1192
- Methane penetration in DIII-D ELMing H-mode plasmas, W.P. West, C.J. Lasnier, D.G. Whyte, R.C. Isler, T.E. Evans, G.L. Jackson, D. Rudakov, M.R. Wade and J. Strachan 313–316 (2003) 1211
- Effects of trapped particles on distribution of divertor flow in Heliotron-E, V.S. Voitsenya, V.V. Chechkin, T. Mizuuchi, K. Nagasaki, M. Nakasuga, H. Okada, S. Besshou, K. Kondo, F. Sano, T. Obiki, S. Masuzaki, O. Motojima and L.E. Sorokovoj 313–316 (2003) 1234
- Studies of detached plasmas on the ULS divertor simulator, K.J. Gibson, P.K.

- Browning, B. Mihaljcic, D.A. Forder and J. Hugill 313–316 (2003) 1253
- Effect of plasma shape on particle flux and particle removal in DIII-D, J.G. Watkins, T.W. Petrie, C.J. Lasnier, S.L. Allen, M.E. Fenstermacher, T.C. Luce, M.A. Mahdavi, R. Maingi, L.W. Owen, M.E. Rensink and M.R. Wade 313–316 (2003) 1258
- Plasma boundary considerations for the national compact stellarator experiment, P. Mioduszewski, A. Grossman, M. Fenstermacher, A. Koniges, L. Owen, T. Rognlien and M. Umansky 313–316 (2003) 1304
- Characteristics of boundary plasmas after the removal of divertor baffle plates and boronization on JFT-2M, H. Kawashima, S. Sengoku, K. Tsuzuki, H. Ogawa and H. Kimura 313–316 (2003) 1338
- Electrical Properties**
- Dusty sheaths in plasmas, O.Yu. Kravchenko, Yu.I. Chutov, W.J. Goedheer, R.D. Smirnov and S. Takamura 313–316 (2003) 1109
- Potential formation and ion distribution function in expanding magnetic field to divertor region, Y. Tomita 313–316 (2003) 1335
- Electron Irradiation**
- Evaluation of the integrity of divertor models of tungsten or SiC/SiC composites joined with copper, A. Kurumada, Y. Imamura, Y. Tomota, T. Oku, Y. Kubota and N. Noda 313–316 (2003) 245
- Embrittlement**
- Simulation study of material mixing process on tungsten surfaces at elevated temperatures due to boundary plasma exposure and its influence on plasma wall interactions, R. Kawakami and K. Ohya 313–316 (2003) 107
- Experimental Techniques**
- The conditioning procedures in Tore Supra after CIEL implementation, J. Bucalossi, C. Brosset, D. Garnier, C. Grisolia, A. Grosman, G. Martin and F. Saint Laurent 313–316 (2003) 263
- Experimental modeling of transport and deposition of hydrocarbon radicals on ITER-FEAT cold trap, I.I. Arkhipov, V.L. Bukhovets, A.K. Buryak, G. Federici, A.E. Gorodetsky, C. Ibbott, D.A. Komarov, A.N. Makhankov, A. Markin, I.V. Mazul, R. Tivey, I.G. Varshavskay, S.P. Vnukov, A.P. Zakharov, A.V. Ulianov and R.Kh. Zalavutdinov 313–316 (2003) 342
- Three-dimensional analysis of the effect of the ergodic magnetic field line structure on particle fueling in the large helical device, M. Shoji, K. Yamazaki, A. Komori, H. Yamada, J. Miyazawa and LHD Experimental Group 313–316 (2003) 614
- Photon efficiency (S+D)/XB of hydrogen molecules at low electron temperatures, U. Fantz, B. Heger, D. Wunderlich, R. Pugno and ASDEX Upgrade Team 313–316 (2003) 743
- Changes in edge and scrape-off layer plasma behavior due to variation in magnetic balance in DIII-D, T.W. Petrie, J.G. Watkins, L.R. Baylor, N.H. Brooks, M.E. Fenstermacher, A.W. Hyatt, G.L. Jackson, C.J. Lasnier, A.W. Leonard, A.Yu. Pigarov, M.E. Rensink, T.D. Rognlien, M.J. Schaffer, N.S. Wolf and The DIII-D Team 313–316 (2003) 834
- Wall conditioning and power balance for spheromak plasmas in SSPX, D.N. Hill, R.D. Wood, R. Bulmer, H.S. McLean, D. Ryutov, B.W. Stallard and S. Woodruff 313–316 (2003) 941
- ELM energy and particle losses and their extrapolation to burning plasma experiments, A. Loarte, G. Saibene, R. Sartori, M. Becoulet, L. Horton, T. Eich, A. Herrmann, M. Laux, G. Matthews, S. Jachmich, N. Asakura, A. Chankin, A. Leonard, G. Porter, G. Federici, M. Shimada, M. Sugihara and G. Janeschitz 313–316 (2003) 962
- Anomalous particle transport and flow shear in the edge region of RFPs, V. Antoni, H. Bergsaker, G. Serianni, M. Spolaore, N. Vianello, R. Cavazzana, G. Regnoli, E. Spada, E. Martines, M. Bagatin and J.R. Drake 313–316 (2003) 972
- Observation of molecular assisted recombination via negative ions formation in a divertor plasma simulator, TPDSHEET-IV, A. Tonegawa, M. Ono, Y. Morihira, H. Ogawa, T. Shibuya, K. Kawamura and K. Takayama 313–316 (2003) 1046
- Neutral transport simulations of gas puff imaging experiments, D.P. Stotler, B. LaBombard, J.L. Terry and S.J. Zweben 313–316 (2003) 1066
- Effect of plasma shape on particle flux and particle removal in DIII-D, J.G. Watkins, T.W. Petrie, C.J. Lasnier, S.L. Allen, M.E. Fenstermacher, T.C. Luce, M.A. Mahdavi, R. Maingi,

- L.W. Owen, M.E. Rensink and M.R. Wade 313–316 (2003) 1258
- First Wall Materials**
- Key ITER plasma edge and plasma–material interaction issues, G. Federici, P. Andrew, P. Barabaschi, J. Brooks, R. Doerner, A. Geier, A. Herrmann, G. Janeschitz, K. Krieger, A. Kukushkin, A. Loarte, R. Neu, G. Saini, M. Shimada, G. Strohmayer and M. Sugihara 313–316 (2003) 11
- PSI issues at plasma facing surfaces of blankets in fusion reactors, Y. Ueda, K. Tobita and Y. Katoh 313–316 (2003) 32
- Molecular dynamics simulations of CH₃ sticking on carbon first wall structures, P. Träskelin, E. Salonen, K. Nordlund, A.V. Krasheninnikov, J. Keinonen and C.H. Wu 313–316 (2003) 52
- New results from the tungsten programme at ASDEX Upgrade, R. Neu, R. Dux, A. Geier, H. Greuner, K. Krieger, H. Maier, R. Pugno, V. Rohde, S.W. Yoon and ASDEX Upgrade Team 313–316 (2003) 116
- The longer life and high performance of lithium containing coatings developed by ICRF in the HT-7 superconducting tokamak, J.L. Chen, J.G. Li, B.N. Wan, Y.P. Zhao, X.D. Zhang, X.M. Gu, X.M. Wang, S.F. Li, N.C. Luo, C.F. Li, Q. Zhou, Z.W. Wu and HT-7 team 313–316 (2003) 140
- Selection of candidate doped graphite materials as plasma facing components for HT-7U device, Q.G. Guo, J.G. Li, N. Noda, Y. Kubota, J.L. Chen, Zh.J. Liu, L. Liu and J.R. Song 313–316 (2003) 144
- Thermal annealing effects on chemical states of deuterium implanted into boron coating film, H. Kodama, T. Sugiyama, Y. Morimoto, Y. Oya, K. Okuno, N. Inoue, A. Sagara and N. Noda 313–316 (2003) 153
- Analysis for surface probes of third experimental campaign in the large helical device, T. Hino, Y. Nobuta, Y. Yamachi, Y. Hirohata, A. Sagara, S. Masuzaki, N. Inoue, N. Noda, O. Motojima and LHD Experimental Group 313–316 (2003) 167
- Impurity desorption behavior from low activation ferritic steel installed in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, H. Ogawa, H. Kimura, F. Okano, S. Suzuki, M. Komata, M. Sawahata, K. Shinohara, K. Kamiya, T. Shibata, T. Akiyama, M. Yamamoto and K. Miyachi 313–316 (2003) 177
- Surface analysis and a novel application of carbon sheet pump in the GAM- MA 10 tandem mirror, Y. Ishimoto, Y. Nakashima, A. Sagara, K. Morita, J. Yuhara, S. Kobayashi, M. Yoshikawa and K. Yatsu 313–316 (2003) 194
- B₄C-limiter experiments at TEXTOR, A. Pospieszczyk, B. Schweer, V. Philipps, A. Huber, G. Sergienko, U. Samm, H. Reimer, M. Freisinger, M. Rubel, A. Herrmann, S. Köllerl, M. Laux, H. Renner and H. Bolt 313–316 (2003) 223
- Investigation of the trapped helium and hydrogen ions in plasma facing materials for LHD using thermal desorption spectrometer and alternating glow discharge cleanings, Y. Kubota, N. Noda, A. Sagara, H. Suzuki, S. Masuzaki, K. Tokunaga, T. Satow, K. Yamazaki and O. Motojima 313–316 (2003) 239
- Effects of wall boron coating on FTU plasma operations, M.L. Apicella, G. Mazzitelli, G. Apruzzese, G. Bracco, B. Esposito, L. Gabellieri, H. Kroeger, M. Leigheb, G. Maddaluno, M. Marinucci, M. Mattioli, V.P. Ridolfini, L. Pieroni, M. Romanelli and FTU team 313–316 (2003) 269
- Re-emission of hydrogen implanted into graphite by helium ion bombardment, B. Tsuchiya, K. Morita, S. Yamamoto, S. Nagata, N. Ohtsu, T. Shikama and H. Naramoto 313–316 (2003) 274
- Dramatic reduction of chemical sputtering of graphite under intercalation of lithium, H. Yagi, H. Toyoda and H. Sugai 313–316 (2003) 284
- Characteristics of lithium thin films under deuterium ion implantation, Y. Furuyama, K. Ito, S. Dohi, A. Taniike and A. Kitamura 313–316 (2003) 288
- Short and long range transport of materials eroded from wall components in fusion devices, P. Wienhold, V. Philipps, A. Kirschner, A. Huber, J. von Seggern, H.G. Esser, D. Hildebrandt, M. Mayer, M. Rubel and W. Schneider 313–316 (2003) 311
- Erosion and migration of tungsten employed at the main chamber first wall of ASDEX Upgrade, K. Krieger, A. Geier, X. Gong, H. Maier, R. Neu and V. Rohde 313–316 (2003) 327
- On the formation of a-C:D layers and parasitic plasmas underneath the roof baffle of the ASDEX Upgrade divertor, V. Rohde and M. Mayer 313–316 (2003) 337
- Chemical erosion behaviour of carbon materials in fusion devices, V. Philipps, M. Stamp, A. Pospieszczyk, A. Huber, A. Kirschner and E. Vietzke 313–316 (2003) 354
- Behavior of high temperature liquid surfaces in contact with plasma, R.P.

- Doerner, M.J., Baldwin, S.I., Kraseninnikov and D.G. Whyte 313–316 (2003) 383
- Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388
- Molecular dynamics studies of the sputtering of divertor materials, E. Salonen, K. Nordlund, J. Keinonen and C.H. Wu 313–316 (2003) 404
- Influence of high-power plasma streams irradiation on surface erosion behavior of reversible hydrogen getters, V.N. Borisko, I.E. Garkusha, V.V. Chebotarev, M.V. Lototsky, J. Langner, M.J. Sadowski, V.I. Terešin and Yu.F. Shmalko 313–316 (2003) 465
- Tritium retention of plasma facing components in tokamaks, T. Tanabe, N. Bekris, P. Coad, C.H. Skinner, M. Glugla and N. Miya 313–316 (2003) 478
- Tritium depth profiles in 2D and 4D CFC tiles from JET and TFTR, N. Bekris, C.H. Skinner, U. Berndt, C.A. Gentile, M. Glugla and B. Schweigel 313–316 (2003) 501
- Tritium distribution on the surface of plasma facing carbon tiles used in JET, K. Sugiyama, K. Miyasaka, T. Tanabe, M. Glugla, N. Bekris and P. Coad 313–316 (2003) 507
- Tritium distribution in JT-60U W-shaped divertor, K. Masaki, K. Sugiyama, T. Tanabe, Y. Gotoh, K. Miyasaka, K. Tobita, Y. Miyo, A. Kaminaga, K. Kodama, T. Arai and N. Miya 313–316 (2003) 514
- Hydrogen retention in graphite and carbon materials under a fusion reactor environment, H. Atsumi 313–316 (2003) 543
- Correlation between annealing effects of damage and implanted deuterium release from graphite, Y. Morimoto and K. Okuno 313–316 (2003) 595
- Temperature dependence of liquid-lithium sputtering from oblique 700 eV He ions, J.P. Allain, M.D. Coventry and D.N. Ruzic 313–316 (2003) 641
- Energy deposition and thermal effects of runaway electrons in ITER-FEAT plasma facing components, G. Madadaluno, G. Maruccia, M. Merola and S. Rollet 313–316 (2003) 651
- Impact of armor materials on tritium breeding ratio in the fusion reactor blanket, S. Sato and T. Nishitani 313–316 (2003) 690
- Stationary and transient divertor heat flux profiles and extrapolation to ITER, A. Herrmann, T. Eich, S. Jachmich, M. Laux, P. Andrew, A. Bergmann, A. Loarte, G. Matthews, J. Neuhauser, ASDEX Upgrade team and Contributors to EFDA-JET work programme 313–316 (2003) 759
- Effect of core-edge coupling on operation regimes of ITER-like reactor, R. Stankiewicz and R. Zagórski 313–316 (2003) 899
- Wall conditioning and power balance for spheromak plasmas in SSPX, D.N. Hill, R.D. Wood, R. Bulmer, H.S. McLean, D. Ryutov, B.W. Stallard and S. Woodruff 313–316 (2003) 941
- ELM energy and particle losses and their extrapolation to burning plasma experiments, A. Loarte, G. Saibene, R. Sartori, M. Becoulet, L. Horton, T. Eich, A. Herrmann, M. Laux, G. Matthews, S. Jachmich, N. Asakura, A. Chankin, A. Leonard, G. Porter, G. Federici, M. Shimada, M. Sugihara and G. Janeschitz 313–316 (2003) 962
- Heat flux scaling experiments in NSTX, R. Maingi, H.W. Kugel, C.J. Lasnier, A.L. Roquemore, V.A. Soukhanovskii, C.E. Bush and The NSTX Team 313–316 (2003) 1005
- Effect upon the core plasma radiation due to high power laser injection onto C, W and Ta test-limiters in TEXTOR, T. Ohgo, M. Wada, K. Ohya, T. Hirai, W. Biel, T. Tanabe, K. Kondo, J. Rapp, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk, G. Bertschinger and N. Noda 313–316 (2003) 1156
- Impurity radiation during ‘breathing’-like oscillations in LHD discharges using a wall limiter, B.J. Peterson, K. Sato, J.E. Rice, S. Morita, M. Goto, M. Osakabe, K. Tanaka, T. Tokuzawa, K. Kawahata, S. Masuzaki, S. Sakakibara, Y. Xu, A.Yu. Kostrioukov, N. Ashikawa, N. Noda, Y. Nakamura, H. Yamada, O. Kaneko, A. Komori, K. Yamazaki, S. Sudo and LHD Experiment Group 313–316 (2003) 1178
- Impurity generation and suppression during IBW heating in HT-7, J. Li, Y.P. Zhao, B.N. Wan, J.Y. Zhao, T. Watari, T. Seki and HT-7 team 313–316 (2003) 1188
- Methane penetration in DIII-D ELMing H-mode plasmas, W.P. West, C.J. Lasnier, D.G. Whyte, R.C. Isler, T.E. Evans, G.L. Jackson, D. Rudakov, M.R. Wade and J. Strachan 313–316 (2003) 1211
- Modeling of tungsten transport in the SOL for sources at the central column of ASDEX Upgrade using DIVIMP, A. Geier, K. Krieger, J.D. Elder, R. Pugno, V. Rohde and The ASDEX Upgrade Team 313–316 (2003) 1216
- Plasma boundary considerations for the national compact stellarator experiment, P. Mioduszewski, A. Gross-

- man, M. Fenstermacher, A. Koniges, L. Owen, T. Rognlien and M. Umansky 313–316 (2003) 1304
- Fission Products**
- Tritium distribution in JT-60U W-shaped divertor, K. Masaki, K. Sugiyama, T. Tanabe, Y. Gotoh, K. Miyasaka, K. Tobita, Y. Miyo, A. Kaminaga, K. Kodama, T. Arai and N. Miya 313–316 (2003) 514
- Fuels and Fuel Elements**
- Non-destructive tritium measurements of Mk IIA divertor tile by BIXS, M. Matsuyama, N. Bekris, M. Glugla, N. Noda, V. Philipps and K. Watanabe 313–316 (2003) 491
- Supersonic gas injection on Tore Supra, B. Pégourié, E. Tsitrone, R. Dejarnac, J. Bucalossi, G. Martin, J. Gunn, D. Frigione, D. Reiter, P. Ghendrih and C. Clément 313–316 (2003) 539
- Confinement and gas fueling in LHD limiter discharges, K. Nishimura, K. Kawahata, K. Narihara, T. Morisaki, S. Masuzaki, S. Sakakibara, K. Tanaka and LHD Experimental Group 313–316 (2003) 952
- Fusion Reactor Materials**
- PSI issues at plasma facing surfaces of blankets in fusion reactors, Y. Ueda, K. Tobita and Y. Katoh 313–316 (2003) 32
- Performance and erosion of a tungsten brush limiter exposed at the TEXTOR tokamak, T. Hirai, V. Philipps, A. Huber, G. Sergienko, J. Linke, T. Wakui, T. Tanabe, M. Rubel, M. Wada, T. Ohgo, A. Pospieszczyk, K. Ohya 313–316 (2003) 67
- Asymmetric surface recombination of hydrogen on palladium exposed to plasma, I. Takagi, K. Moritani and H. Moriyama 313–316 (2003) 102
- Selection of candidate doped graphite materials as plasma facing components for HT-7U device, Q.G. Guo, J.G. Li, N. Noda, Y. Kubota, J.L. Chen, Zh.J. Liu, L. Liu and J.R. Song 313–316 (2003) 144
- Thermal annealing effects on chemical states of deuterium implanted into boron coating film, H. Kodama, T. Sugiyama, Y. Morimoto, Y. Oya, K. Okuno, N. Inoue, A. Sagara and N. Noda 313–316 (2003) 153
- Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique, Y. Oya, Y. Hirohata, Y. Morimoto, H. Yoshida, H. Kodama, K. Kizu, J. Yagyu, Y. Gotoh, K. Masaki, K. Okuno, T. Tanabe, N. Miya, T. Hino and S. Tanaka 313–316 (2003) 209
- Ablation rate estimation of inertial fusion reactor candidate material with intense ion beam and X-ray, K. Kasuya, A. Kasamatsu, Y. Kinoshita, T. Kamimura, A. Saiki, T.J. Renk and C.L. Olson 313–316 (2003) 235
- Inhomogeneous heat loading to high-Z test limiters depending upon the limiter materials, M. Wada, T. Hirai, T. Ohgo, T. Tanabe, K. Ohya, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk and N. Noda 313–316 (2003) 292
- Erosion in the DIII-D divertor by neon-detached plasmas, W.R. Wampler, D.G. Whyte, C.P.C. Wong and W.P. West 313–316 (2003) 333
- On the formation of a-C:D layers and parasitic plasmas underneath the roof baffle of the ASDEX Upgrade divertor, V. Rohde and M. Mayer 313–316 (2003) 337
- Experimental modeling of transport and deposition of hydrocarbon radicals on ITER-FEAT cold trap, I.I. Arkhipov, V.L. Bukhovets, A.K. Buryak, G. Federici, A.E. Gorodetsky, C. Ibbott, D.A. Komarov, A.N. Makhankov, A. Markin, I.V. Mazul, R. Tivey, I.G. Varshavskay, S.P. Vnukov, A.P. Zakharov, A.V. Ulianov and R.Kh. Zalavutdinov 313–316 (2003) 342
- Erosion and deposition at the ALT-II limiter of TEXTOR, M. Mayer, P. Wienhold, D. Hildebrandt and W. Schneider 313–316 (2003) 377
- Advances in the modeling of chemical erosion/redeposition of carbon divertors and application to the JET tritium codeposition problem, J.N. Brooks, A. Kirschner, D.G. Whyte, D.N. Ruzic and D.A. Alman 313–316 (2003) 424
- Characterisation of deposited hydrocarbon layers below the divertor and in the pumping ducts of ASDEX Upgrade, M. Mayer, V. Rohde, A. von Keudell and ASDEX Upgrade Team 313–316 (2003) 429
- Long term behaviour of material erosion and deposition on the vessel wall and remote areas of TEXTOR, J. von Seggern, P. Wienhold, T. Hirai, V. Philipps and H.G. Esser 313–316 (2003) 439
- Modelling of the transport of methane and higher hydrocarbons in fusion devices, A. Kirschner, J.N. Brooks, V. Philipps, P. Wienhold, A. Pospieszczyk, R.K. Janev and U. Samm 313–316 (2003) 444
- Non-destructive tritium measurements of Mk IIA divertor tile by BIXS,

- M. Matsuyama, N. Bekris, M. Glugla,
N. Noda, V. Philipps and K. Watanabe 313–316 (2003) 491
- Modeling of global particle balance in steady-state magnetic fusion devices – Analysis of the recent data from the TRIAM-1M tokamak, Y. Hirooka, M. Sakamoto and T. TRIAM group** 313–316 (2003) 588
- Energy deposition and thermal effects of runaway electrons in ITER-FEAT plasma facing components, G. Madadaluno, G. Maruccia, M. Merola and S. Rollet 313–316 (2003) 651
- Comprehensive modeling of ELMs and their effect on plasma-facing surfaces during normal tokamak operation, A. Hassanein and I. Konkashbaev 313–316 (2003) 664
- Impact of armor materials on tritium breeding ratio in the fusion reactor blanket, S. Sato and T. Nishitani 313–316 (2003) 690
- Stationary and transient divertor heat flux profiles and extrapolation to ITER, A. Herrmann, T. Eich, S. Jachmich, M. Laux, P. Andrew, A. Bergmann, A. Loarte, G. Matthews, J. Neuhauser, ASDEX Upgrade team and Contributors to EFDA-JET work programme 313–316 (2003) 759
- Effect of core-edge coupling on operation regimes of ITER-like reactor, R. Stankiewicz and R. Zagórski 313–316 (2003) 899
- Influence of the plasma on ICRF antenna voltage limits, V. Bobkov, J.-M. Noterdaeme, F. Wesner, R. Wilhelm and ASDEX Upgrade Team 313–316 (2003) 956
- Gases in Materials (excludes Hydrogen, Helium and Tritium)**
- Investigation of the trapped helium and hydrogen ions in plasma facing materials for LHD using thermal desorption spectrometer and alternating glow discharge cleanings, Y. Kubota, N. Noda, A. Sagara, H. Suzuki, S. Masuzaki, K. Tokunaga, T. Satow, K. Yamazaki and O. Motojima 313–316 (2003) 239
- Deuterium to helium plasma-wall change-over experiments in the JET MkII-gas box divertor, D.L. Hillis, T. Loarer, J. Bucalossi, A. Pospieszczyk, W. Fundamenski, G. Matthews, A. Meigs, P. Morgan, V. Phillips, R. Pitts, M. Stamp, M. von Hellermann and EFDA-JET workprogramme contributors 313–316 (2003) 1061
- Heat Treatment**
- Tritium removal from JET and TFTR tiles by a scanning laser, C.H. Skinner, N. Bekris, J.P. Coad, C.A. Gentile and M. Glugla 313–316 (2003) 496
- Thermographic observation of the divertor target plates in the stellarators W7-AS and W7-X, D. Hildebrandt, F. Gadelmeier, P. Grigull, K. McCormick, D. Naujoks, D. Sünder and W7-AS Team 313–316 (2003) 738
- Control of divertor heat load by Ar injection with keeping high performance in ELMY H-mode plasmas on JT-60U, S. Higashijima, N. Asakura, H. Kubo, Y. Miura, T. Nakano, S. Konoshima, K. Itami, S. Sakurai, H. Takenaga, H. Tamai and The JT-60 Team 313–316 (2003) 1123
- Helium**
- Surface morphology and helium retention on tungsten exposed to low energy and high flux helium plasma, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 313–316 (2003) 92
- Incident ion energy dependence of bubble formation on tungsten surface with low energy and high flux helium plasma irradiation, D. Nishijima, M.Y. Ye, N. Ohno and S. Takamura 313–316 (2003) 97
- Analysis for surface probes of third experimental campaign in the large helical device, T. Hino, Y. Nobuta, Y. Yamauchi, Y. Hirohata, A. Sagara, S. Masuzaki, N. Inoue, N. Noda, O. Motojima and LHD Experimental Group 313–316 (2003) 167
- Investigation of the trapped helium and hydrogen ions in plasma facing materials for LHD using thermal desorption spectrometer and alternating glow discharge cleanings, Y. Kubota, N. Noda, A. Sagara, H. Suzuki, S. Masuzaki, K. Tokunaga, T. Satow, K. Yamazaki and O. Motojima 313–316 (2003) 239
- The conditioning procedures in Tore Supra after CIEL implementation, J. Bucalossi, C. Brosset, D. Garnier, C. Grisolía, A. Grosman, G. Martin and F. Saint Laurent 313–316 (2003) 263
- Re-emission of hydrogen implanted into graphite by helium ion bombardment, B. Tsuchiya, K. Morita, S. Yamamoto, S. Nagata, N. Ohtsu, T. Shikama and H. Naramoto 313–316 (2003) 274
- Blister formation and erosion due to blister fracture of SiC or Si, Y. Yamauchi, Y. Hirohata and T. Hino 313–316 (2003) 408
- Density limits in helium plasmas at JET, J. Rapp, A. Huber, L.C. Ingesson, S. Jachmich, G.F. Matthews, V. Philipps, R. Pitts and Contributors to the EFDA-JET work programme 313–316 (2003) 524
- Comparing scrape-off layer and divertor physics in JET pure He and D discharges, R.A. Pitts, P. Andrew, Y.

- Andrew, M. Becoulet, I. Coffey, D. Coster, D.C. McDonald, T. Eich, S.K. Erents, M.E. Fenstermacher, W. Fundamenski, G. Haas, A. Hermann, C. Hidalgo, D. Hillis, A. Huber, L.C. Ingesson, S. Jachmich, A. Kallenbach, A. Korotkov, K. Lawson, P. Lomas, T. Loarer, A. Loarte, G.F. Matthews, G. McCracken, A. Meigs, Ph. Mertens, M. OMullane, V. Philipps, G. Porter, A. Pospieszczyk, J. Rapp, D. Reiter, V. Riccardo, G. Saibene, R. Sartori, M.F. Stamp, E. Tsitrone, M. Wischmeier, J. Gafert and Contributors to the EFDA-JET work-programme
313–316 (2003) 777
- Divertor detachment during pure helium plasmas in JET, M. Wischmeier, D. Coster, X. Bonnin, T. Eich, A. Huber, C. Ingesson, S. Jachmich, A. Kukushkin, A. Loarte, G.F. Matthews, R.A. Pitts, J. Rapp, D. Reiter, E. Tsitrone and Contributors EFDA-JET Work Programme
313–316 (2003) 980
- Neutralization loss of high energy particles in the plasma boundary of LHD, M. Sasao, M. Isobe, T. Seki, K. Saito, T. Saida, S. Murakami, A.V. Krashilnikov and LHD-Experimental Group
313–316 (2003) 1010
- Deuterium to helium plasma-wall change-over experiments in the JET MkII-gas box divertor, D.L. Hillis, T. Loarer, J. Bucalossi, A. Pospieszczyk, W. Fundamenski, G. Matthews, A. Meigs, P. Morgan, V. Phillips, R. Pitts, M. Stamp, M. von Hellermann and EFDA-JET workprogramme contributors
313–316 (2003) 1061
- Comparison of carbon and main ion radiation profiles in matched helium and deuterium plasmas in JET, M.E. Fenstermacher, K.D. Lawson, G.D. Porter, S.K. Erents, C. Ingesson, G.F. Matthews, G.M. McCracken, V. Philipps, R.A. Pitts, M.F. Stamp and Contributors to the EFDA-JET Workprogramme
313–316 (2003) 1206
- Disruptions – a proposal for their mitigation by runaway suppression, K.H. Finken, A. Kraemer-Flecken, M. Lehnen and A. Savtchkov
313–316 (2003) 1247
- Experiments on selective removal of helium by an application of radio frequency field, T. Shoji, Y. Sakawa, N. Tamura, S. Jachmich, G. Mank and K.H. Finken
313–316 (2003) 1262
- History of Nuclear Materials**
- Selection of candidate doped graphite materials as plasma facing compo-
- nents for HT-7U device, Q.G. Guo, J.G. Li, N. Noda, Y. Kubota, J.L. Chen, Zh.J. Liu, L. Liu and J.R. Song
313–316 (2003) 144
- Neutralization loss of high energy particles in the plasma boundary of LHD, M. Sasao, M. Isobe, T. Seki, K. Saito, T. Saida, S. Murakami, A.V. Krashilnikov and LHD-Experimental Group
313–316 (2003) 1010
- Hydrogen and Hydrides (includes Deuterium and Deuterides)**
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier
313–316 (2003) 56
- Blister formation on tungsten surface under low energy and high flux hydrogen plasma irradiation in NAGDIS-I, M.Y. Ye, H. Kanehara, S. Fukuta, N. Ohno and S. Takamura
313–316 (2003) 72
- Imitation of deuterium plasma interaction with the surface of carbon materials in gaseous divertor conditions, S.N. Korshunov, M.I. Guseva, V.M. Gureev, L.S. Danelyan, B.I. Khrapunov, B.N. Kolbasov, V.S. Kulikauskas, A.M. Litnovsky, Yu.V. Martynenko and V.B. Petro
313–316 (2003) 87
- Asymmetric surface recombination of hydrogen on palladium exposed to plasma, I. Takagi, K. Moritani and H. Moriyama
313–316 (2003) 102
- Some peculiarities in the behavior of Be surfaces under bombardment by ions from a deuterium plasma, A.F. Baradmid, A.I. Belyayeva, V.N. Bondarenko, A.A. Galuz, V.V. Gann, L. Jacobson, V.G. Konovalov, D.V. Orlinskij, I.I. Papirov and I.V. Ryzhkov
313–316 (2003) 112
- Chemical erosion of DIII-D divertor tile specimens, P.B. Wright, J.W. Davis, R.G. Macaulay-Newcombe, C.G. Hamilton and A.A. Haasz
313–316 (2003) 158
- Hydrogen removal via ICRF technique on HT-7 – experiment and modeling on neutral energies, B. Xiao, J. Li and HT-7 team
313–316 (2003) 163
- Suppression of hydrogen absorption to V-4Cr-4Ti alloy by TiO₂/TiC coating, Y. Hirohata, D. Motojima, T. Hino and S. Sengoku
313–316 (2003) 172
- Surface analysis and a novel application of carbon sheet pump in the GAM-MA 10 tandem mirror, Y. Ishimoto, Y. Nakashima, A. Sagara, K. Morita, J. Yuhara, S. Kobayashi, M. Yoshikawa and K. Yatsu
313–316 (2003) 194
- Impurity effects and temperature dependence of D retention in single crystal

- tungsten, M. Poon, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 313–316 (2003) 199
- Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique, Y. Oya, Y. Hirohata, Y. Morimoto, H. Yoshida, H. Kodama, K. Kizu, J. Yagyu, Y. Gotoh, K. Masaki, K. Okuno, T. Tanabe, N. Miya, T. Hino and S. Tanaka 313–316 (2003) 209
- Influence of thin alien layers on hydrogen reflection and trapping by PFM, A.V. Golubeva, V.A. Kurnaev, D.V. Levchuk and N.N. Trifonov 313–316 (2003) 219
- The conditioning procedures in Tore Supra after CIEL implementation, J. Bucalossi, C. Brosset, D. Garnier, C. Grisolia, A. Grosman, G. Martin and F. Saint Laurent 313–316 (2003) 263
- Re-emission of hydrogen implanted into graphite by helium ion bombardment, B. Tsuchiya, K. Morita, S. Yamamoto, S. Nagata, N. Ohtsu, T. Shikama and H. Naramoto 313–316 (2003) 274
- Beryllium and carbon films in JET following D-T operation, M. Rubel, J.P. Coad, N. Bekris, S.K. Erents, D. Hole, G.F. Matthews, R.-D. Penzhorn and Contributors to EFDA-JET work programme 313–316 (2003) 321
- Erosion/deposition in JET during the period 1999–2001, J.P. Coad, P. Andrew, D.E. Hole, S. Lehto, J. Likonen, G.F. Matthews, M. Rubel and Contributors to the EFDA-JET work programme 313–316 (2003) 419
- Long term behaviour of material erosion and deposition on the vessel wall and remote areas of TEXTOR, J. von Seggern, P. Wienhold, T. Hirai, V. Philipps and H.G. Esser 313–316 (2003) 439
- Influence of high-power plasma streams irradiation on surface erosion behavior of reversible hydrogen getters, V.N. Borisko, I.E. Garkusha, V.V. Chebotarev, M.V. Lototsky, J. Langner, M.J. Sadowski, V.I. Terešin and Yu.F. Shmalko 313–316 (2003) 465
- Deuterium retention in tungsten in dependence of the surface conditions, O.V. Ogorodnikova, J. Roth and M. Mayer 313–316 (2003) 469
- Comparison of fueling efficiency from different fueling locations on DIII-D, L.R. Baylor, T.C. Jernigan, R.J. Colchin, G.L. Jackson, L.W. Owen and T.W. Petrie 313–316 (2003) 530
- Hydrogen retention in graphite and carbon materials under a fusion reactor environment, H. Atsumi 313–316 (2003) 543
- Fueling experiments using neutral beam injection in the GAMMA 10 tandem mirror, Y. Nakashima, T. Kato, Y. Ishimoto, K. Orito, T. Natori, T. Fukasawa, K. Watanabe, S. Kobayashi, M. Shoji, Y. Kubota, E. Kawamori, M. Yoshikawa, I. Katanuma, M. Ichimura, T. Cho and K. Yatsu 313–316 (2003) 553
- Role of neutrals in core fueling and pedestal structure in H-mode DIII-D discharges, N.S. Wolf, T.W. Petrie, G.D. Porter, T.D. Rognlien, R.J. Groebner and M.A. Mahdavi 313–316 (2003) 564
- Simulation of hydrogen and hydrocarbon release from W-Ta and W-C twin test limiters in TEXTOR edge plasmas, K. Ohya, T. Hirai, T. Tanabe, M. Wada, T. Ohgo, V. Philipps, A. Pospieszczyk, A. Huber, G. Sergienko, S. Brezinsek and N. Noda 313–316 (2003) 568
- Fluid simulation on pellet ablation with atomic process, R. Ishizaki, N. Nakajima, M. Okamoto and P.B. Parks 313–316 (2003) 579
- Correlation between annealing effects of damage and implanted deuterium release from graphite, Y. Morimoto and K. Okuno 313–316 (2003) 595
- Computer modeling of ion implanted deuterium release from tungsten, A.A. Pisarev, I.D. Voskresensky and S.I. Porfirev 313–316 (2003) 604
- Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk, S. Cerneasca, HP. Winter and F. Aumayr 313–316 (2003) 670
- Photon efficiency (S+D)/XB of hydrogen molecules at low electron temperatures, U. Fantz, B. Heger, D. Wunderlich, R. Pugno and ASDEX Upgrade Team 313–316 (2003) 743
- On the measurement of molecular particle fluxes in fusion boundary plasmas, S. Brezinsek, P.T. Greenland, Ph. Mertens, A. Pospieszczyk, D. Reiter, U. Samm, B. Schweer and G. Sergienko 313–316 (2003) 967
- Effect of transport on MAR in detached divertor plasma, K. Miyamoto, A. Hatayama, Y. Ishii, T. Miyamoto and A. Fukano 313–316 (2003) 1036
- Disruptions – a proposal for their mitigation by runaway suppression, K.H. Finken, A. Kraemer-Flecken, M. Lehnert and A. Savtchkov 313–316 (2003) 1247
- Neutral particle modelling and particle exhaust in the Wendelstein 7-X stellarator, H. Grote, J. Kisslinger, H. Renner, J. Boscaro, H. Greuner, F.W. Hoffmann and B. Mendelevitch 313–316 (2003) 1298

Impurities

- PSI issues toward steady state plasmas in the HT-7 tokamak, B. Wan, J. Li, J. Zhao, J. Chen, Y. Zhao and HT-7 Team 313–316 (2003) 127
- The longer life and high performance of lithium containing coatings developed by ICRF in the HT-7 superconducting tokamak, J.L. Chen, J.G. Li, B.N. Wan, Y.P. Zhao, X.D. Zhang, X.M. Gu, X.M. Wang, S.F. Li, N.C. Luo, C.F. Li, Q. Zhou, Z.W. Wu and HT-7 team 313–316 (2003) 140
- Analysis for surface probes of third experimental campaign in the large helical device, T. Hino, Y. Nobuta, Y. Yamauchi, Y. Hirohata, A. Sagara, S. Masuzaki, N. Inoue, N. Noda, O. Motojima and LHD Experimental Group 313–316 (2003) 167
- Impurity desorption behavior from low activation ferritic steel installed in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, H. Ogawa, H. Kimura, F. Okano, S. Suzuki, M. Komata, M. Sawahata, K. Shinohara, K. Kamiya, T. Shibata, T. Akiyama, M. Yamamoto and K. Miyachi 313–316 (2003) 177
- Plasma deposition of boron films with high growth rate and efficiency using carborane, O.I. Buzhinskij, V.G. Otroshchenko, D.G. Whyte, M. Baldwin, R.W. Conn, R.P. Doerner, R. Seraydarian, S. Luckhardt, H. Kugel and W.P. West 313–316 (2003) 214
- Density limits in helium plasmas at JET, J. Rapp, A. Huber, L.C. Ingesson, S. Jachmich, G.F. Matthews, V. Philippis, R. Pitts and Contributors to the EFDA-JET work programme 313–316 (2003) 524
- Role of neutrals in core fueling and pedestal structure in H-mode DIII-D discharges, N.S. Wolf, T.W. Petrie, G.D. Porter, T.D. Rognlien, R.J. Groebner and M.A. Mahdavi 313–316 (2003) 564
- Experimental investigations on hydrocarbon-enhanced MAR processes in low temperature plasma in divertor simulator MAP-II, S. Kado, H. Kobayashi, T. Oishi and S. Tanaka 313–316 (2003) 754
- Impact of wall conditioning and gas fuelling on the enhanced confinement modes in TJ-II, F.L. Tabarés, D. Tafalla, R. Balbín, B. Brañas, T. Estrada, I. García-Cortés, F. Medina and M.A. Ochando 313–316 (2003) 839
- An overview of JET edge modelling activities, D.P. Coster, X. Bonnin, G. Corrigan, R. Dejarnac, M. Fenstermacher, W. Fundamenski, A. Geier, J. Hogan, A. Kallenbach, A. Kirschner, K. Krieger, A. Loarte, G. Matthews, R.A. Pitts, G. Porter, R. Pugno, D. Reiser, D. Reiter, S. Sipila, J. Spence, P.C. Stangeby, E. Tsitrone, D. Tskhakaya, M. Wischmeier and Contributors to the EFDA-JET work programme 313–316 (2003) 868
- Carbon sources in the DIII-D tokamak, R.C. Isler, R.J. Colchin, N.H. Brooks, T.E. Evans, W.P. West and D.G. Whyte 313–316 (2003) 873
- Interpretive modeling of simple-as-possible-plasma discharges on DIII-D using the OEDGE code, P.C. Stangeby, J.D. Elder, J.A. Boedo, B. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, R.C. Isler, L.L. Lao, S. Lisgo, G.D. Porter, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 883
- Two-dimensional distribution of divertor radiation in JT-60U, S. Konoshima, H. Tamai, Y. Miura, S. Higashijima, H. Kubo, S. Sakurai, K. Shimizu, T. Takizuka, Y. Koide, T. Hatae and H. Takenaga 313–316 (2003) 888
- Tomographic reconstruction of 2D line radiation distribution in the JET MkIIIB divertor, A. Huber, P. Coad, D. Coster, L.C. Ingesson, K. Itami, S. Jachmich, A. Kirschner, M. Lehnert, G.F. Matthews, Ph. Mertens, V. Philippis, A. Pospieszczyk, B. Schweer, G. Sergienko, M. Stamp and Contributors to the EFDA-JET programme 313–316 (2003) 925
- Analysis of the progress to detachment in the divertor of the MAST tokamak, A. Tabasso, J. Dowling, J.-W. Ahn, G. Cunningham, A. Kirk, G. McArdele, M. Price and The MAST Team 313–316 (2003) 936
- Recycling impurity compression in Alcator C-mod divertor, T. Chung, C.S. Pitcher, B. Labombard, B. Lipschultz, J.L. Terry, J.E. Rice, J.A. Goetz, J.D. Elder and P.C. Stangeby 313–316 (2003) 990
- High time-resolved, 2D imaging of type-I ELMs in DIII-D using a image-intensified CID camera, M. Groth, M.E. Fenstermacher, J.A. Boedo, N.H. Brooks, D.S. Gray, C.J. Lasnier, A.W. Leonard, G.D. Porter and J.G. Watkins 313–316 (2003) 1071
- Simulation of the effect of plasma flows in DIII-D, JET, and JT-60U, G.D. Porter, T.D. Rognlien, M.E. Rensink, A. Loarte, N. Asakura, H. Takenaga, G. Matthews and Contributors to the EFDA-JET Work Programme 313–316 (2003) 1085
- Bolometric images of the three-dimensional structure of asymmetric radiative collapse in LHD, N. Ashikawa,

- B.J. Peterson, S. Sudo, A.Yu. Kostriukov, Y. Xu, M. Shoji, T. Watanabe, M. Osakabe, S. Morita, M. Goto and LHD Experimental Group 313–316 (2003) 1103
- Dusty sheaths in plasmas, O.Yu. Kravchenko, Yu.I. Chutov, W.J. Goedheer, R.D. Smirnov and S. Takamura 313–316 (2003) 1109
- Accumulation of impurities in advanced scenarios, R. Dux, C. Giroud, R. Neu, A.G. Peeters, J. Stober, K.-D. Zastrow, Contributors to the EFDA-JET Workprogramme and ASDEX Upgrade Team 313–316 (2003) 1150
- Effect upon the core plasma radiation due to high power laser injection onto C, W and Ta test-limiters in TEXTOR, T. Ohgo, M. Wada, K. Ohya, T. Hirai, W. Biel, T. Tanabe, K. Kondo, J. Rapp, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk, G. Bertschinger and N. Noda 313–316 (2003) 1156
- Impurity radiation during ‘breathing’-like oscillations in LHD discharges using a wall limiter, B.J. Peterson, K. Sato, J.E. Rice, S. Morita, M. Goto, M. Osakabe, K. Tanaka, T. Tokuzawa, K. Kawahata, S. Masuzaki, S. Sakakibara, Y. Xu, A.Yu. Kostriukov, N. Ashikawa, N. Noda, Y. Nakamura, H. Yamada, O. Kaneko, A. Komori, K. Yamazaki, S. Sudo and LHD Experiment Group 313–316 (2003) 1178
- Multi-dimensional impurity transport code by Monte Carlo method including gyro-orbit effects, I. Hyodo, M. Hirano, K. Miyamoto, K. Hoshino and A. Hatayama 313–316 (2003) 1183
- Impurity generation and suppression during IBW heating in HT-7, J. Li, Y.P. Zhao, B.N. Wan, J.Y. Zhao, T. Watari, T. Seki and HT-7 team 313–316 (2003) 1188
- The effect of magnetic field modification on heavy ion movement in advanced stellarators and helical devices, A. Shishkin, O. Shyshkin, H. Wobig, Y. Igitkhanov, O. Motojima, S. Morimoto, K. Yamazaki and S. Inagaki 313–316 (2003) 1192
- Radiation enhancement and impurity behavior in JT-60U reversed shear discharges, H. Kubo, S. Sakurai, S. Higashijima, H. Takenaga, K. Itami, S. Konoshima, T. Nakano, Y. Koide, N. Asakura, K. Shimizu, T. Fujita and K.W. Hill 313–316 (2003) 1197
- Unified analytic representation of hydrocarbon impurity collision cross-sections, R.K. Janev and D. Reiter 313–316 (2003) 1202
- Methane penetration in DIII-D ELMing H-mode plasmas, W.P. West, C.J. Lasnier, D.G. Whyte, R.C. Isler, T.E. Evans, G.L. Jackson, D. Rudakov, M.R. Wade and J. Strachan 313–316 (2003) 1211
- Modeling of ELM events and their effect on impurity enrichment, J. Hogan, R. Colchin, D. Coster, L. Baylor, M. Fenstermacher, M. Groth and M. Wade 313–316 (2003) 1221
- Potential formation and ion distribution function in expanding magnetic field to divertor region, Y. Tomita 313–316 (2003) 1335
- Ion Irradiation**
- IFE chamber walls: requirements, design options, and synergy with MFE plasma facing components, A.R. Raffray, D. Haynes and F. Najmabadi 313–316 (2003) 23
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56
- Imitation of deuterium plasma interaction with the surface of carbon materials in gaseous divertor conditions, S.N. Korshunov, M.I. Guseva, V.M. Gureev, L.S. Danelyan, B.I. Khripunov, B.N. Kolbasov, V.S. Kulikauskas, A.M. Litnovsky, Yu.V. Martynenko and V.B. Petro 313–316 (2003) 87
- Investigation of the trapped helium and hydrogen ions in plasma facing materials for LHD using thermal desorption spectrometer and alternating glow discharge cleanings, Y. Kubota, N. Noda, A. Sagara, H. Suzuki, S. Masuzaki, K. Tokunaga, T. Satow, K. Yamazaki and O. Motojima 313–316 (2003) 239
- Re-emission of hydrogen implanted into graphite by helium ion bombardment, B. Tsuchiya, K. Morita, S. Yamamoto, S. Nagata, N. Ohtsu, T. Shikama and H. Naramoto 313–316 (2003) 274
- Dramatic reduction of chemical sputtering of graphite under intercalation of lithium, H. Yagi, H. Toyoda and H. Sugai 313–316 (2003) 284
- Characteristics of lithium thin films under deuterium ion implantation, Y. Furuyama, K. Ito, S. Dohi, A. Taniike and A. Kitamura 313–316 (2003) 288
- Chemical erosion by deuterium of atomically dispersed doped hydrocarbon layers, M. Balden, J. Roth, E.D.J. Pardo and A. Wiltner 313–316 (2003) 348
- Blister formation and erosion due to blister fracture of SiC or Si, Y. Yamuchi, Y. Hirohata and T. Hino 313–316 (2003) 408
- Erosion of CFC under simultaneous bombardment by helium and deuterium ions, V. Bandourko, R. Jimbou,

- K. Nakamura, M. Akiba and Y. Okumura 313–316 (2003) 413
 Deuterium retention in tungsten in dependence of the surface conditions, O.V. Ogorodnikova, J. Roth and M. Mayer 313–316 (2003) 469
 Correlation between annealing effects of damage and implanted deuterium release from graphite, Y. Morimoto and K. Okuno 313–316 (2003) 595
 Computer modeling of ion implanted deuterium release from tungsten, A.A. Pisarev, I.D. Voskresensky and S.I. Porfirev 313–316 (2003) 604
- Joining (includes Welding, Brazing, Soldering)**
- Evaluation of the integrity of divertor models of tungsten or SiC/SiC composites joined with copper, A. Kurumada, Y. Imamura, Y. Tomota, T. Oku, Y. Kubota and N. Noda 313–316 (2003) 245
- Kinetics**
- Asymmetric surface recombination of hydrogen on palladium exposed to plasma, I. Takagi, K. Moritani and H. Moriyama 313–316 (2003) 102
 Modeling of hydrocarbon species in ECR methane plasmas, K. Matyash, R. Schneider, A. Bergmann, W. Jacob, U. Fantz and P. Pecher 313–316 (2003) 434
 Radiation transfer in dense edge plasmas and divertors: experimental and recent computational results, D. Reiter, S. Wiesen and M. Born 313–316 (2003) 845
 Predicted effects of parallel temperature gradients on the overestimation of TCV divertor target Langmuir probe T_e measurements, J. Horacek, R.A. Pitts, P.C. Stangeby, O. Batishchev and A. Loarte 313–316 (2003) 931
 A method of kinetic description of the near-wall plasma and non-local effects, A.F. Nastoyashchii and I.N. Morozov 313–316 (2003) 1094
 Unified analytic representation of hydrocarbon impurity collision cross-sections, R.K. Janev and D. Reiter 313–316 (2003) 1202
 Potential formation and ion distribution function in expanding magnetic field to divertor region, Y. Tomita 313–316 (2003) 1335
- Laser**
- Tritium removal from JET and TFTR tiles by a scanning laser, C.H. Skinner, N. Bekris, J.P. Coad, C.A. Gentile and M. Glugla 313–316 (2003) 496
 Ablative removal of codeposits on JT-60 carbon tiles by an excimer laser, W.M. Shu, Y. Kawakubo, K. Masaki and M.F. Nishi 313–316 (2003) 584
 Observation of molecular assisted recombination via negative ions formation in a divertor plasma simulator, TPDSHEET-IV, A. Tonegawa, M. Ono, Y. Morihira, H. Ogawa, T. Shibuya, K. Kawamura and K. Takayama 313–316 (2003) 1046
- Limiter Materials**
- Arcing at B₄C-covered limiters exposed to a SOL-plasma, M. Laux, W. Schneider, P. Wienhold, B. Jüttner, A. Huber, M. Balden, J. Linke, H. Kostial, M. Mayer, M. Rubel, A. Herrmann, A. Pospieszczyk, S. Jachmich, B. Schweer, D. Hildebrandt and H. Bolt 313–316 (2003) 62
 New results from the tungsten programme at ASDEX Upgrade, R. Neu, R. Dux, A. Geier, H. Greuner, K. Krieger, H. Maier, R. Pugno, V. Rohde, S.W. Yoon and ASDEX Upgrade Team 313–316 (2003) 116
 Inhomogeneous heat loading to high-Z test limiters depending upon the limiter materials, M. Wada, T. Hirai, T. Ohgo, T. Tanabe, K. Ohya, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk and N. Noda 313–316 (2003) 292
 On the measurement of molecular particle fluxes in fusion boundary plasmas, S. Brezinsek, P.T. Greenland, Ph. Mertens, A. Pospieszczyk, D. Reiter, U. Samm, B. Schweer and G. Sergienko 313–316 (2003) 967
 Effect upon the core plasma radiation due to high power laser injection onto C, W and Ta test-limiters in TEXTOR, T. Ohgo, M. Wada, K. Ohya, T. Hirai, W. Biel, T. Tanabe, K. Kondo, J. Rapp, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk, G. Bertschinger and N. Noda 313–316 (2003) 1156
 Impurity radiation during ‘breathing’-like oscillations in LHD discharges using a wall limiter, B.J. Peterson, K. Sato, J.E. Rice, S. Morita, M. Goto, M. Osakabe, K. Tanaka, T. Tokuzawa, K. Kawahata, S. Masuzaki, S. Sakakibara, Y. Xu, A.Yu. Kostrioukov, N. Ashikawa, N. Noda, Y. Nakamura, H. Yamada, O. Kaneko, A. Komori, K. Yamazaki, S. Sudo and LHD Experiment Group 313–316 (2003) 1178
 Impurity generation and suppression during IBW heating in HT-7, J. Li, Y.P. Zhao, B.N. Wan, J.Y. Zhao, T. Watari, T. Seki and HT-7 team 313–316 (2003) 1188
 Effect of plasma shape on particle flux and particle removal in DIII-D, J.G. Watkins, T.W. Petrie, C.J. Lasnier,

- S.L. Allen, M.E. Fenstermacher, T.C. Luce, M.A. Mahdavi, R. Maingi, L.W. Owen, M.E. Rensink and M.R. Wade 313–316 (2003) 1258
- Liquid Metals**
- Damage process of resolidified part on CVD-W coated molybdenum under high heat load, S. Tamura, K. Tokunaga and N. Yoshida 313–316 (2003) 250
- Behavior of high temperature liquid surfaces in contact with plasma, R.P. Doerner, M.J. Baldwin, S.I. Krasheninnikov and D.G. Whyte 313–316 (2003) 383
- Liquid lithium surface research and development, B.I. Khripunov, V.B. Petrov, V.V. Shapkin, A.S. Pleshakov, A.S. Rupyshev, N.V. Antonov, A.M. Litnovsky, D.Yu. Prokhorov, Yu.S. Shpansky and V.A. Evtikhin 313–316 (2003) 619
- Temperature dependence of liquid-lithium sputtering from oblique 700 eV He ions, J.P. Allain, M.D. Coventry and D.N. Ruzic 313–316 (2003) 641
- Comprehensive modeling of ELMs and their effect on plasma-facing surfaces during normal tokamak operation, A. Hassanein and I. Konkashbaev 313–316 (2003) 664
- Low Activation Materials (includes Reduced Activation)**
- PSI issues at plasma facing surfaces of blankets in fusion reactors, Y. Ueda, K. Tobita and Y. Katoh 313–316 (2003) 32
- Mathematical and Computational Methods**
- Molecular dynamics simulations of the effect of deuterium on tungsten erosion by oxygen, I.S. Landman and H. Wuerz 313–316 (2003) 77
- Molecular dynamics calculation of carbon/hydrocarbon reflection coefficients on a hydrogenated graphite surface, D.A. Alman and D.N. Ruzic 313–316 (2003) 182
- Numerical simulation of CFC and tungsten target erosion in ITER-FEAT divertor, V. Filatov 313–316 (2003) 393
- Fluid simulation on pellet ablation with atomic process, R. Ishizaki, N. Nakajima, M. Okamoto and P.B. Parks 313–316 (2003) 579
- Narrow power profiles seen at JET and their relation to ion orbit losses, W. Fundamenski, S. Sipilä, T. Eich, T. Kiviniemi, T. Kurki-Suonio, G. Matthews, V. Riccardo and Contributors to the EFDA-JET work programme 313–316 (2003) 787
- Changes in edge and scrape-off layer plasma behavior due to variation in magnetic balance in DIII-D, T.W. Petrie, J.G. Watkins, L.R. Baylor, N.H. Brooks, M.E. Fenstermacher, A.W. Hyatt, G.L. Jackson, C.J. Lasnier, A.W. Leonard, A.Yu. Pigarov, M.E. Rensink, T.D. Rognlien, M.J. Schaffer, N.S. Wolf and The DIII-D Team 313–316 (2003) 834
- Radiation transfer in dense edge plasmas and divertors: experimental and recent computational results, D. Reiter, S. Wiesen and M. Born 313–316 (2003) 845
- Modelling of island divertor physics and comparison to W7-AS experimental results, Y. Feng, F. Sardei, P. Grigull, K. McCormick, L. Giannone, J. Kisslinger, D. Reiter, Y. Igitkhanov and U. Wenzel 313–316 (2003) 857
- Two-dimensional distribution of divertor radiation in JT-60U, S. Konoshima, H. Tamai, Y. Miura, S. Higashijima, H. Kubo, S. Sakurai, K. Shimizu, T. Takizuka, Y. Koide, T. Hatae and H. Takenaga 313–316 (2003) 888
- Effect of core-edge coupling on operation regimes of ITER-like reactor, R. Stankiewicz and R. Zagórski 313–316 (2003) 899
- Improved modelling of detachment and neutral-dominated regimes using the SOLPSB2-Eirene code, X. Bonnin, D. Coster, C.S. Pitcher, R. Schneider, D. Reiter, V. Rozhansky, S. Voskoboinikov and H. Bürbamer 313–316 (2003) 909
- $E \times B$ -drift, current, and kinetic effects on divertor plasma profiles during ELMs, T.D. Rognlien and M. Shimada 313–316 (2003) 1000
- Two-dimensional modelling for HT-7U tokamak divertor, Y. Chen 313–316 (2003) 1015
- Hierarchy tests of edge transport models (BoRIS, UEDGE), J. Riemann, M. Borchardt, R. Schneider, X. Bonnin, A. Mutzke, T. Rognlien and M. Umansky 313–316 (2003) 1030
- EIRENE neutral code modeling of the C-mod divertor, S. Lisgo, P.C. Stangeby, C.J. Boswell, J.D. Elder, B. LaBombard, B. Lipschultz, C.S. Pitcher, D. Reiter and J.L. Terry 313–316 (2003) 1089
- Multi-dimensional impurity transport code by Monte Carlo method including gyro-orbit effects, I. Hyodo, M. Hirano, K. Miyamoto, K. Hoshino and A. Hatayama 313–316 (2003) 1183
- Modeling of ELM events and their effect on impurity enrichment, J. Hogan, R. Colchin, D. Coster, L. Baylor, M. Fenstermacher, M. Groth and M. Wade 313–316 (2003) 1221
- Simulation of divertor detachment characteristics in JT-60 with superconducting coils, K. Shimizu, T. Takizuka, S. Sakurai, H. Tamai, H. Takenaga, H. Kubo and Y. Miura 313–316 (2003) 1277

- Neutral particle modelling and particle exhaust in the Wendelstein 7-X stellarator, H. Grote, J. Kisslinger, H. Renner, J. Boscary, H. Greuner, F.W. Hoffmann and B. Mendelevitch 313–316 (2003) 1298
- An experimental and theoretical study on the formation of electric field induced flow shear in the tokamak edge, M. Van Schoor, S. Jachmich and R.R. Weynants 313–316 (2003) 1326
- Microstructure and Texture (excludes by Irradiation)**
- Molecular dynamics simulations of CH₃ sticking on carbon first wall structures, P. Träskelin, E. Salonen, K. Nordlund, A.V. Krasheninnikov, J. Keinonen and C.H. Wu 313–316 (2003) 52
- Effect of transport on MAR in detached divertor plasma, K. Miyamoto, A. Hatayama, Y. Ishii, T. Miyamoto and A. Fukano 313–316 (2003) 1036
- Molybdenum, Molybdenum Alloys and Compounds**
- Material properties of co-deposition formed on plasma facing materials in all-metal machine TRIAM-1M, M. Miyamoto, K. Tokunaga, T. Fujisawa, N. Yoshida, TRIAM group, Y. Morimoto, T. Sugiyama and K. Okuno 313–316 (2003) 82
- Effects of wall boron coating on FTU plasma operations, M.L. Apicella, G. Mazzitelli, G. Apruzzese, G. Bracco, B. Esposito, L. Gabellieri, H. Kroegler, M. Leigheb, G. Maddaluno, M. Marinucci, M. Mattioli, V.P. Ridolfini, L. Pieroni, M. Romanelli and FTU team 313–316 (2003) 269
- Monitoring Methods**
- Damage process of resolidified part on CVD-W coated molybdenum under high heat load, S. Tamura, K. Tokunaga and N. Yoshida 313–316 (2003) 250
- Short and long range transport of materials eroded from wall components in fusion devices, P. Wienhold, V. Philippss, A. Kirschner, A. Huber, J. von Seggern, H.G. Esser, D. Hildebrandt, M. Mayer, M. Rubel and W. Schneidder 313–316 (2003) 311
- Three-dimensional analysis of the effect of the ergodic magnetic field line structure on particle fueling in the large helical device, M. Shoji, K. Yamazaki, A. Komori, H. Yamada, J. Miyazawa and LHD Experimental Group 313–316 (2003) 614
- Experimental investigations on hydrocarbon-enhanced MAR processes in low temperature plasma in divertor 313–316 (2003) 754
- Effect of transport on MAR in detached divertor plasma, K. Miyamoto, A. Hatayama, Y. Ishii, T. Miyamoto and A. Fukano 313–316 (2003) 1036
- Modeling approach to a 3D simulation of transport in TEXTOR-DED laminar zone with a finite element method, M. Kobayashi, D. Reiser, G. Sewell, K.H. Finken and S.S. Abdullaev 313–316 (2003) 1056
- Neutral particle modelling and particle exhaust in the Wendelstein 7-X stellarator, H. Grote, J. Kisslinger, H. Renner, J. Boscary, H. Greuner, F.W. Hoffmann and B. Mendelevitch 313–316 (2003) 1298
- Nickel, Nickel Alloys and Compounds**
- Tritium permeation study through tungsten and nickel using pure tritium ion beam, H. Nakamura, W. Shu, T. Hayashi and M. Nishi 313–316 (2003) 679
- Optical Microscopy**
- Some peculiarities in the behavior of Be surfaces under bombardment by ions from a deuterium plasma, A.F. Bar-damid, A.I. Belyayeva, V.N. Bondarenko, A.A. Galuza, V.V. Gann, L. Jacobson, V.G. Konovalov, D.V. Orlinskij, I.I. Papirov, I.V. Ryzhkov, A.N. Shapoval, A.F. Shtan, S.I. Solodovchenko, A.A. Vasilev and V.S. Voitsenya 313–316 (2003) 112
- Surface temperature measurements on Tokamak target plates with two types of infra red fibres, R. Reichle, C. Pochet, E. Delchambre, L. Ducobu, F. Faisse, D. Guilhem, M. Jouve, D. Moulin, H. Roche and E. Thomas 313–316 (2003) 711
- Oxides**
- Molecular dynamics simulations of the effect of deuterium on tungsten erosion by oxygen, I.S. Landman and H. Wuerz 313–316 (2003) 77
- Some peculiarities in the behavior of Be surfaces under bombardment by ions from a deuterium plasma, A.F. Bar-damid, A.I. Belyayeva, V.N. Bondarenko, A.A. Galuza, V.V. Gann, L. Jacobson, V.G. Konovalov, D.V. Orlinskij, I.I. Papirov, I.V. Ryzhkov, A.N. Shapoval, A.F. Shtan, S.I. Solodovchenko, A.A. Vasilev and V.S. Voitsenya 313–316 (2003) 112
- Permeation**
- Asymmetric surface recombination of hydrogen on palladium exposed to

- plasma, I. Takagi, K. Moritani and H. Moriyama 313–316 (2003) 102
- Suppression of hydrogen absorption to V–4Cr–4Ti alloy by TiO₂/TiC coating, Y. Hirohata, D. Motojima, T. Hino and S. Sengoku 313–316 (2003) 172
- Tritium permeation study through tungsten and nickel using pure tritium ion beam, H. Nakamura, W. Shu, T. Hayashi and M. Nishi 313–316 (2003) 679
- Unified analytic representation of hydrocarbon impurity collision cross-sections, R.K. Janev and D. Reiter 313–316 (2003) 1202
- Phase Transformation (includes Evaporation, Sublimation)**
- IFE chamber walls: requirements, design options, and synergy with MFE plasma facing components, A.R. Raffray, D. Haynes and F. Najmabadi 313–316 (2003) 23
- Transport and condensation of soft a-C:H film thermal decomposition products, A.E. Gorodetsky, R.Kh. Zalavutdinov, I.I. Arkhipov, V.Kh. Alimov, A.P. Zakharov, S.P. Vnukov, V.L. Bukhovets and I.G. Varshavskaya 313–316 (2003) 460
- Fluid simulation on pellet ablation with atomic process, R. Ishizaki, N. Nakajima, M. Okamoto and P.B. Parks 313–316 (2003) 579
- Influence of plasma pressure gradient on melt layer macroscopic erosion of metal targets in disruption simulation experiments, V.I. Tereshin, I.E. Garuskha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.A. Makhlaj, D.G. Solyakov and H. Wuerz 313–316 (2003) 685
- Physical Properties (not listed elsewhere)**
- Ergodic edge region of large helical device, T. Morisaki, K. Narihara, S. Masuzaki, S. Morita, M. Goto, A. Komori, N. Ohyabu, O. Motojima, K. Matsuoka and LHD Experimental Group 313–316 (2003) 548
- Experimental investigations on hydrocarbon-enhanced MAR processes in low temperature plasma in divertor simulator MAP-II, S. Kado, H. Kobayashi, T. Oishi and S. Tanaka 313–316 (2003) 754
- Effect of transport on MAR in detached divertor plasma, K. Miyamoto, A. Hatayama, Y. Ishii, T. Miyamoto and A. Fukano 313–316 (2003) 1036
- Dusty sheaths in plasmas, O.Yu. Kravchenko, Yu.I. Chutov, W.J. Goedheer, R.D. Smirnov and S. Takamura 313–316 (2003) 1109
- Effects of trapped particles on distribution of divertor flow in Heliotron-E, V.S. Voitsenya, V.V. Chechkin, T. Mizuuchi, K. Nagasaki, M. Nakasu- ga, H. Okada, S. Besshou, K. Kondo, F. Sano, T. Obiki, S. Masuzaki, O. Motojima and L.E. Sorokovoj 313–316 (2003) 1234
- Plasma-Materials Interaction**
- Helical divertor operation and erosion/deposition at target surfaces in LHD, A. Sagara, S. Masuzaki, T. Morisaki, S. Morita, H. Funaba, M. Goto, Y. Nakamura, K. Nishimura, N. Noda, M. Shoji, H. Suzuki, A. Takayama, A. Komori, N. Ohyabu, O. Motojima, K. Morita, K. Ohya, J.P. Sharpe and LHD Experimental Group 313–316 (2003) 1
- Key ITER plasma edge and plasma–material interaction issues, G. Federici, P. Andrew, P. Barabaschi, J. Brooks, R. Doerner, A. Geier, A. Herrmann, G. Janeschitz, K. Krieger, A. Kukushkin, A. Loarte, R. Neu, G. Saini, M. Shimada, G. Strohmayer and M. Sugihara 313–316 (2003) 11
- IFE chamber walls: requirements, design options, and synergy with MFE plasma facing components, A.R. Raffray, D. Haynes and F. Najmabadi 313–316 (2003) 23
- PSI issues at plasma facing surfaces of blankets in fusion reactors, Y. Ueda, K. Tobita and Y. Katoh 313–316 (2003) 32
- Material/plasma surface interaction issues following neutron damage, V. Barabash, G. Federici, J. Linke and C.H. Wu 313–316 (2003) 42
- Molecular dynamics simulations of CH₃ sticking on carbon first wall structures, P. Träskelin, E. Salonen, K. Nordlund, A.V. Krasheninnikov, J. Keinonen and C.H. Wu 313–316 (2003) 52
- Arcing at B₄C-covered limiters exposed to a SOL-plasma, M. Laux, W. Schneider, P. Wienhold, B. Jüttner, A. Huber, M. Balden, J. Linke, H. Kostial, M. Mayer, M. Rubel, A. Herrmann, A. Pospieszczyk, S. Jachmich, B. Schweer, D. Hildebrandt and H. Bolt 313–316 (2003) 62
- Performance and erosion of a tungsten brush limiter exposed at the TEXTOR tokamak, T. Hirai, V. Philipps, A. Huber, G. Sergienko, J. Linke, T. Wakui, T. Tanabe, M. Rubel, M. Wada, T. Ohgo, A. Pospieszczyk and K. Ohya 313–316 (2003) 67
- Blister formation on tungsten surface under low energy and high flux hydrogen plasma irradiation in NAGDIS-I, M.Y. Ye, H. Kanehara, S. Fukuta, N. Ohno and S. Takamura 313–316 (2003) 72
- Molecular dynamics simulations of the effect of deuterium on tungsten ero-

- sion by oxygen, I.S. Landman and H. Wuerz 313–316 (2003) 77
- Material properties of co-deposition formed on plasma facing materials in all-metal machine TRIAM-1M, M. Miyamoto, K. Tokunaga, T. Fujiwara, N. Yoshida, TRIAM group, Y. Morimoto, T. Sugiyama and K. Okuno 313–316 (2003) 82
- Imitation of deuterium plasma interaction with the surface of carbon materials in gaseous divertor conditions, S.N. Korshunov, M.I. Guseva, V.M. Gureev, L.S. Danelyan, B.I. Khrapunov, B.N. Kolbasov, V.S. Kulikauskas, A.M. Litnovsky, Yu.V. Martynenko and V.B. Petrov 313–316 (2003) 87
- Surface morphology and helium retention on tungsten exposed to low energy and high flux helium plasma, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 313–316 (2003) 92
- Incident ion energy dependence of bubble formation on tungsten surface with low energy and high flux helium plasma irradiation, D. Nishijima, M.Y. Ye, N. Ohno and S. Takamura 313–316 (2003) 97
- Asymmetric surface recombination of hydrogen on palladium exposed to plasma, I. Takagi, K. Moritani and H. Moriyama 313–316 (2003) 102
- Simulation study of material mixing process on tungsten surfaces at elevated temperatures due to boundary plasma exposure and its influence on plasma wall interactions, R. Kawakami and K. Ohya 313–316 (2003) 107
- New results from the tungsten programme at ASDEX Upgrade, R. Neu, R. Dux, A. Geier, H. Greuner, K. Krieger, H. Maier, R. Pugno, V. Rohde, S.W. Yoon and ASDEX Upgrade Team 313–316 (2003) 116
- PSI issues toward steady state plasmas in the HT-7 tokamak, B. Wan, J. Li, J. Zhao, J. Chen, Y. Zhao and HT-7 Team 313–316 (2003) 127
- Thermal effects of surface layers on divertor target plates, P. Andrew, J.P. Coad, T. Eich, E. Gauthier, A. Herrmann, G.F. Matthews, V. Riccardo, M. Stamp and Contributors to the EFDA-JET Work Programme 313–316 (2003) 135
- The longer life and high performance of lithium containing coatings developed by ICRF in the HT-7 superconducting tokamak, J.L. Chen, J.G. Li, B.N. Wan, Y.P. Zhao, X.D. Zhang, X.M. Gu, X.M. Wang, S.F. Li, N.C. Luo, C.F. Li, Q. Zhou, Z.W. Wu and HT-7 team 313–316 (2003) 140
- Selection of candidate doped graphite materials as plasma facing components for HT-7U device, Q.G. Guo, J.G. Li, N. Noda, Y. Kubota, J.L. Chen, Zh.J. Liu, L. Liu and J.R. Song 313–316 (2003) 144
- Boronization effects using deuterated-decaborane ($B_{10}D_{14}$) in JT-60U, T. Nakano, S. Higashijima, H. Kubo, J. Yagyu, T. Arai, N. Asakura and K. Itami 313–316 (2003) 149
- Analysis for surface probes of third experimental campaign in the large helical device, T. Hino, Y. Nobuta, Y. Yamauchi, Y. Hirohata, A. Sagara, S. Masuzaki, N. Inoue, N. Noda, O. Motojima and LHD Experimental Group 313–316 (2003) 167
- Impurity desorption behavior from low activation ferritic steel installed in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, H. Ogawa, H. Kimura, F. Okano, S. Suzuki, M. Komata, M. Sawahata, K. Shinohara, K. Kamiya, T. Shibata, T. Akiyama, M. Yamamoto and K. Miyachi 313–316 (2003) 177
- Molecular dynamics calculation of carbon/hydrocarbon reflection coefficients on a hydrogenated graphite surface, D.A. Alman and D.N. Ruzic 313–316 (2003) 182
- Surface analysis and a novel application of carbon sheet pump in the GAM-MA 10 tandem mirror, Y. Ishimoto, Y. Nakashima, A. Sagara, K. Morita, J. Yuhara, S. Kobayashi, M. Yoshioka and K. Yatsu 313–316 (2003) 194
- Impurity effects and temperature dependence of D retention in single crystal tungsten, M. Poon, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 313–316 (2003) 199
- Blister formation in tungsten by hydrogen and carbon mixed ion beam irradiation, T. Shimada, H. Kikuchi, Y. Ueda, A. Sagara and M. Nishikawa 313–316 (2003) 204
- Hydrogen isotope behavior in in-vessel components used for DD plasma operation of JT-60U by SIMS and XPS technique, Y. Oya, Y. Hirohata, Y. Morimoto, H. Yoshida, H. Kodama, K. Kizu, J. Yagyu, Y. Gotoh, K. Masaki, K. Okuno, T. Tanabe, N. Miya, T. Hino and S. Tanaka 313–316 (2003) 209
- B_4C -limiter experiments at TEXTOR, A. Pospieszczyk, B. Schweer, V. Philipps, A. Huber, G. Sergienko, U. Samm, H. Reimer, M. Freisinger, M. Rubel, A. Herrmann, S. Köllerl, M. Laux, H. Renner and H. Bolt 313–316 (2003) 223
- Wall conditioning for performance improvement in the divertor reversed

- field pinch TPE-2M, K. Hayase, Y. Sato and S. Kiyama 313–316 (2003) 230
- The wall conditioning experiment by Li-Si coating in the HL-1M tokamak, N.M. Zhang, M.X. Wang, B. Li, C.H. Cui, J.E. Zeng and Y. Liu 313–316 (2003) 255
- Boundary plasma behavior under different wall conditions on HT-7 tokamak, G.S. Xu, M. Song, B.N. Wan, B.L. Ling, C.F. Li, J. Li and HT-7 Team 313–316 (2003) 259
- The conditioning procedures in Tore Supra after CIEL implementation, J. Bucalossi, C. Brosset, D. Garnier, C. Grisolia, A. Grosman, G. Martin and F. Saint Laurent 313–316 (2003) 263
- Dramatic reduction of chemical sputtering of graphite under intercalation of lithium, H. Yagi, H. Toyoda and H. Sugai 313–316 (2003) 284
- Inhomogeneous heat loading to high-Z test limiters depending upon the limiter materials, M. Wada, T. Hirai, T. Ohgo, T. Tanabe, K. Ohya, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk and N. Noda 313–316 (2003) 292
- Behavior of helium gas in the LHD vacuum chamber, H. Suzuki, N. Ohya, A. Komori, T. Morisaki, S. Masuzaki, J. Miyazawa, R. Sakamoto, M. Shoji, M. Goto, S. Morita, Y. Kubota and O. Motojima 313–316 (2003) 297
- Short and long range transport of materials eroded from wall components in fusion devices, P. Wienhold, V. Philipps, A. Kirschner, A. Huber, J. von Seggern, H.G. Esser, D. Hildebrandt, M. Mayer, M. Rubel and W. Schneider 313–316 (2003) 311
- Beryllium and carbon films in JET following D-T operation, M. Rubel, J.P. Coad, N. Bekris, S.K. Erents, D. Hole, G.F. Matthews, R.-D. Penzhorn and Contributors to EFDA-JET work programme 313–316 (2003) 321
- Erosion and migration of tungsten employed at the main chamber first wall of ASDEX Upgrade, K. Krieger, A. Geier, X. Gong, H. Maier, R. Neu and V. Rohde 313–316 (2003) 327
- Erosion in the DIII-D divertor by neon-detached plasmas, W.R. Wampler, D.G. Whyte, C.P.C. Wong and W.P. West 313–316 (2003) 333
- On the formation of a-C:D layers and parasitic plasmas underneath the roof baffle of the ASDEX Upgrade divertor, V. Rohde and M. Mayer 313–316 (2003) 337
- Chemical erosion by deuterium of atomically dispersed doped hydrocarbon layers, M. Balden, J. Roth, E.d.J. Pardo and A. Wiltner 313–316 (2003) 348
- Erosion and deposition at the ALT-II limiter of TEXTOR, M. Mayer, P. Wienhold, D. Hildebrandt and W. Schneider 313–316 (2003) 377
- Behavior of high temperature liquid surfaces in contact with plasma, R.P. Doerner, M.J. Baldwin, S.I. Krasheninnikov and D.G. Whyte 313–316 (2003) 383
- Numerical simulation of CFC and tungsten target erosion in ITER-FEAT divertor, V. Filatov 313–316 (2003) 393
- Erosion and erosion products of tungsten and carbon-based materials irradiated by a high energy electron beam, X. Liu, N. Yoshida, N. Noda, F. Zhang, Z. Xu and Y. Liu 313–316 (2003) 399
- Erosion/deposition in JET during the period 1999–2001, J.P. Coad, P. Andrew, D.E. Hole, S. Lehto, J. Likonen, G.F. Matthews, M. Rubel and Contributors to the EFDA-JET work programme 313–316 (2003) 419
- Advances in the modeling of chemical erosion/redeposition of carbon divertors and application to the JET tritium codeposition problem, J.N. Brooks, A. Kirschner, D.G. Whyte, D.N. Ruzic and D.A. Alman 313–316 (2003) 424
- Characterisation of deposited hydrocarbon layers below the divertor and in the pumping ducts of ASDEX Upgrade, M. Mayer, V. Rohde, A. von Keudell and ASDEX Upgrade Team 313–316 (2003) 429
- Modeling of hydrocarbon species in ECR methane plasmas, K. Matyash, R. Schneider, A. Bergmann, W. Jacob, U. Fantz and P. Pecher 313–316 (2003) 434
- Long term behaviour of material erosion and deposition on the vessel wall and remote areas of TEXTOR, J. von Seggern, P. Wienhold, T. Hirai, V. Philipps and H.G. Esser 313–316 (2003) 439
- Modelling of the transport of methane and higher hydrocarbons in fusion devices, A. Kirschner, J.N. Brooks, V. Philipps, P. Wienhold, A. Pospieszczyk, R.K. Janev and U. Samm 313–316 (2003) 444
- Characterization of dust collected from ASDEX-Upgrade and LHD, J.P. Sharpe, V. Rohde, & The ASDEX-Upgrade Experiment Team, A. Sagara, H. Suzuki, A. Komori, O. Motojima and The LHD Experimental Group 313–316 (2003) 455
- Influence of high-power plasma streams irradiation on surface erosion behavior of reversible hydrogen getters, V.N. Borisko, I.E. Garkusha, V.V. Chebotarev, M.V. Lototsky,

- J. Langner, M.J. Sadowski, V.I. Tereshin and Yu.F. Shmalko 313–316 (2003) 465
- Tritium retention of plasma facing components in tokamaks, T. Tanabe, N. Bekris, P. Coad, C.H. Skinner, M. Glugla and N. Miya 313–316 (2003) 478
- Tritium removal from JET and TFTR tiles by a scanning laser, C.H. Skinner, N. Bekris, J.P. Coad, C.A. Gentile and M. Glugla 313–316 (2003) 496
- Tritium distribution on the surface of plasma facing carbon tiles used in JET, K. Sugiyama, K. Miyasaka, T. Tanabe, M. Glugla, N. Bekris and P. Coad 313–316 (2003) 507
- Tritium distribution in JT-60U W-shaped divertor, K. Masaki, K. Sugiyama, T. Tanabe, Y. Gotoh, K. Miyasaka, K. Tobita, Y. Miyo, A. Kaminaga, K. Kodama, T. Arai and N. Miya 313–316 (2003) 514
- Static and dynamic properties of wall recycling in TRIAM-1M, M. Sakamoto, H. Nakashima, S. Kawasaki, A. Iyomasa, S.V. Kulkarni, M. Hasegawa, E. Jotaki, H. Zushi, K. Nakamura, K. Hanada and S. Itoh 313–316 (2003) 519
- Density limits in helium plasmas at JET, J. Rapp, A. Huber, L.C. Ingesson, S. Jachmich, G.F. Matthews, V. Philippis, R. Pitts and Contributors to the EFDA-JET work programme 313–316 (2003) 524
- Supersonic gas injection on Tore Supra, B. Pégourié, E. Tsitrone, R. Dejarnac, J. Bucalossi, G. Martin, J. Gunn, D. Frigione, D. Reiter, P. Ghendrih and C. Clément 313–316 (2003) 539
- Simulation of hydrogen and hydrocarbon release from W-Ta and W-C twin test limiters in TEXTOR edge plasmas, K. Ohya, T. Hirai, T. Tanabe, M. Wada, T. Ohgo, V. Philippis, A. Pospieszczyk, A. Huber, G. Sergienko, S. Brezinsek and N. Noda 313–316 (2003) 568
- Core fueling and edge particle flux analysis in ohmically and auxiliary heated NSTX plasmas, V.A. Soukhanovskii, R. Maingi, R. Raman, H.W. Kugel, B.P. LeBlanc, A.L. Roquemore, C.H. Skinner and NSTX Research Team 313–316 (2003) 573
- Ablative removal of codeposits on JT-60 carbon tiles by an excimer laser, W.M. Shu, Y. Kawakubo, K. Masaki and M.F. Nishi 313–316 (2003) 584
- Modeling of global particle balance in steady-state magnetic fusion devices – Analysis of the recent data from the TRIAM-1M tokamak, Y. Hirooka, M. Sakamoto and The TRIAM group 313–316 (2003) 588
- Computer modeling of ion implanted deuterium release from tungsten, A.A. Pisarev, I.D. Voskresensky and S.I. Porfirev 313–316 (2003) 604
- Three-dimensional analysis of the effect of the ergodic magnetic field line structure on particle fueling in the large helical device, M. Shoji, K. Yamazaki, A. Komori, H. Yamada, J. Miyazawa and LHD Experimental Group 313–316 (2003) 614
- Liquid lithium surface research and development, B.I. Khripunov, V.B. Petrov, V.V. Shapkin, A.S. Pleshakov, A.S. Rupyshev, N.V. Antonov, A.M. Litnovsky, D.Yu. Prokhorov, Yu.S. Shpansky and V.A. Evtikhin 313–316 (2003) 619
- Temperature dependence of liquid-lithium sputtering from oblique 700 eV He ions, J.P. Allain, M.D. Coventry and D.N. Ruzic 313–316 (2003) 641
- Energy deposition and thermal effects of runaway electrons in ITER-FEAT plasma facing components, G. Madaluno, G. Maruccia, M. Merola and S. Rollet 313–316 (2003) 651
- Comprehensive modeling of ELMs and their effect on plasma-facing surfaces during normal tokamak operation, A. Hassanein and I. Konkashbaev 313–316 (2003) 664
- Experimental evaluation of space charge limited emission current from tungsten surface in high density helium plasma, Y. Hagino, N. Ohno, S. Takamura and M.Y. Ye 313–316 (2003) 675
- Influence of plasma pressure gradient on melt layer macroscopic erosion of metal targets in disruption simulation experiments, V.I. Tereshin, I.E. Garuksha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.A. Makhraj, D.G. Solyakov and H. Wuerz 313–316 (2003) 685
- Speckle interferometry diagnostic for erosion/redeposition measurements in tokamaks, E. Gauthier and G. Ruppillard 313–316 (2003) 701
- Surface temperature measurements on Tokamak target plates with two types of infra red fibres, R. Reichle, C. Pocheau, E. Delchambre, L. Ducobu, F. Faisse, D. Guilhem, M. Jouve, D. Moulin, H. Roche and E. Thomas 313–316 (2003) 711
- Two-dimensional diagnostics of edge and divertor region of toroidal helical plasmas using a lithium beam probe, K. Nakamura, H. Iguchi, M. Ueda, T. Morisaki, M. Isobe, K. Ida, C. Takahashi, S. Okamura and K. Matsuo 313–316 (2003) 725
- Particle collection at the plasma edge by a fast reciprocating probe at the TEXTOR tokamak, B. Emmoth,

- P. Wienhold, M. Rubel, B. Schweer and R. Zagórski 313–316 (2003) 729
- Observations with a mid-plane reciprocating probe in MAST, Y. Yang, G.F. Counsell and The MAST team 313–316 (2003) 734
- Thermographic observation of the divertor target plates in the stellarators W7-AS and W7-X, D. Hildebrandt, F. Gadelmeier, P. Grigull, K. McCormick, D. Naujoks, D. Sünder and W7-AS Team 313–316 (2003) 738
- Measurements of hydrogen negative ion and its comparison with the molecular hydrogen spectra in divertor simulator MAP-II, S. Kajita, S. Kado, N. Uchida, T. Shikama and S. Tanaka 313–316 (2003) 748
- Experimental investigations on hydrocarbon-enhanced MAR processes in low temperature plasma in divertor simulator MAP-II, S. Kado, H. Kobayashi, T. Oishi and S. Tanaka 313–316 (2003) 754
- Stationary and transient divertor heat flux profiles and extrapolation to ITER, A. Herrmann, T. Eich, S. Jachmich, M. Laux, P. Andrew, A. Bergmann, A. Loarte, G. Matthews, J. Neuhauser, ASDEX Upgrade team and Contributors to EFDA-JET work programme 313–316 (2003) 759
- Transport of ELM energy and particles into the SOL and divertor of DIII-D, A.W. Leonard, J.A. Boedo, M.E. Fenstermacher, R.J. Groebner, M. Goth, C.J. Lasnier, M.A. Mahdavi, T.H. Osborne, D.L. Rudakov, T.W. Petrie and J.G. Watkins 313–316 (2003) 768
- Comparing scrape-off layer and divertor physics in JET pure He and D discharges, R.A. Pitts, P. Andrew, Y. Andrew, M. Becoulet, I. Coffey, D. Coster, D.C. McDonald, T. Eich, S.K. Erents, M.E. Fenstermacher, W. Fundamenski, G. Haas, A. Hermann, C. Hidalgo, D. Hillis, A. Huber, L.C. Ingesson, S. Jachmich, A. Kallenbach, A. Korotkov, K. Lawson, P. Lomas, T. Loarer, A. Loarte, G.F. Matthews, G. McCracken, A. Meigs, Ph. Mertens, M. OMullane, V. Philipps, G. Porter, A. Pospieszczyk, J. Rapp, D. Reiter, V. Riccardo, G. Saibene, R. Sartori, M.F. Stamp, E. Tsitrone, M. Wischmeier, J. Gafert and Contributors to the EFDA-JET work programme 313–316 (2003) 777
- Narrow power profiles seen at JET and their relation to ion orbit losses, W. Fundamenski, S. Sipilä, T. Eich, T. Kiviniemi, T. Kurki-Suonio, G. Matthews, V. Riccardo and Contributors to the EFDA-JET work programme 313–316 (2003) 787
- Theoretical understanding of turbulent transport in the SOL, Y. Sarazin, Ph. Ghendrih, G. Attuel, C. Clément, X. Garbet, V. Grandgirard, M. Ottaviani, S. Benkadda, P. Beyer, N. Bian and C. Figarella 313–316 (2003) 796
- A review of plasma boundary phenomena in the mega ampere spherical tokamak, G.F. Counsell, J.-W. Ahn, R. Akers, E. Arends, S.J. Fielding, P. Helander, A. Kirk, H. Meyer, A. Tabasso, H. Wilson and Y. Yang 313–316 (2003) 804
- Intermittent convection in the boundary of DIII-D, J.A. Boedo, D.L. Rudakov, R.J. Colchin, R.A. Moyer, S. Krasheninnikov, D.G. Whyte, G.R. McKee, G. Porter, M.J. Schaffer, P.C. Stangeby, W.P. West, S.L. Allen and A.W. Leonard 313–316 (2003) 813
- Influence of plasma-wall interactions on the behaviour of ELMs in JT-60U, A.V. Chankin, N. Asakura, T. Fukuda, A. Isayama, K. Itami, Y. Kamada, H. Kubo, Y. Miura, T. Nakano, N. Oyama, S. Takeji and H. Tak 313–316 (2003) 828
- Changes in edge and scrape-off layer plasma behavior due to variation in magnetic balance in DIII-D, T.W. Petrie, J.G. Watkins, L.R. Baylor, N.H. Brooks, M.E. Fenstermacher, A.W. Hyatt, G.L. Jackson, C.J. Lasnier, A.W. Leonard, A.Yu. Pigarov, M.E. Rensink, T.D. Rognlien, M.J. Schaffer, N.S. Wolf and The DIII-D Team 313–316 (2003) 834
- Impact of wall conditioning and gas fuelling on the enhanced confinement modes in TJ-II, F.L. Tabarés, D. Tafalla, R. Balbín, B. Brañas, T. Estrada, I. García-Cortés, F. Medina and M.A. Ochando 313–316 (2003) 839
- An overview of JET edge modelling activities, D.P. Coster, X. Bonnin, G. Corrigan, R. Dejarnac, M. Fenstermacher, W. Fundamenski, A. Geier, J. Hogan, A. Kallenbach, A. Kirschner, K. Krieger, A. Loarte, G. Matthews, R.A. Pitts, G. Porter, R. Pugno, D. Reiser, D. Reiter, S. Sipila, J. Spence, P.C. Stangeby, E. Tsitrone, D. Tskhakaya, M. Wischmeier and Contributors to the EFDA-JET work programme 313–316 (2003) 868
- Carbon sources in the DIII-D tokamak, R.C. Isler, R.J. Colchin, N.H. Brooks, T.E. Evans, W.P. West and D.G. Whyte 313–316 (2003) 873
- Edge plasma effects in DIII-D impurity seeded discharges, G.L. Jackson, J.A. Boedo, C.J. Lasnier, A.W. Leonard, G.R. McKee, M.

- Murakami, M.R. Wade, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 878
- Interpretive modeling of simple-as-possible-plasma discharges on DIII-D using the OEDGE code, P.C. Stangeby, J.D. Elder, J.A. Boedo, B. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, R.C. Isler, L.L. Lao, S. Lisgo, G.D. Porter, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 883
- Two-dimensional distribution of divertor radiation in JT-60U, S. Konoshima, H. Tamai, Y. Miura, S. Higashijima, H. Kubo, S. Sakurai, K. Shimizu, T. Takizuka, Y. Koide, T. Hatae and H. Takenaga 313–316 (2003) 888
- Effect of core-edge coupling on operation regimes of ITER-like reactor, R. Stankiewicz and R. Zagórski 313–316 (2003) 899
- Scrape-off layer features of the QH-mode, C.J. Lasnier, K.H. Burrell, J.S. de Grassie, A.W. Leonard, R.A. Moyer, G.D. Porter, J.G. Watkins and DIII-D team 313–316 (2003) 904
- Power deposition measurements in deuterium and helium discharges in JET MKIIGB divertor by IR-thermography, T. Eich, A. Herrmann, P. Andrew, A. Loarte and Contributors to the EFDA-JET Program 313–316 (2003) 919
- Tomographic reconstruction of 2D line radiation distribution in the JET MkIIIB divertor, A. Huber, P. Coad, D. Coster, L.C. Ingesson, K. Itami, S. Jachmich, A. Kirschner, M. Lehnen, G.F. Matthews, Ph. Mertens, V. Philippis, A. Pospieszczyk, B. Schweer, G. Sergienko, M. Stamp and Contributors to the EFDA-JET programme 313–316 (2003) 925
- Analysis of the progress to detachment in the divertor of the MAST tokamak, A. Tabasso, J. Dowling, J.-W. Ahn, G. Cunningham, A. Kirk, G. McArdle, M. Price and The MAST Team 313–316 (2003) 936
- Wall conditioning and power balance for spheromak plasmas in SSPX, D.N. Hill, R.D. Wood, R. Bulmer, H.S. McLean, D. Ryutov, B.W. Stallard and S. Woodruff 313–316 (2003) 941
- Asymmetric divertor plasma distribution observed in Heliotron J ECH discharges, T. Mizuuchi, W.L. Ang, Y. Nishioka, T. Kobayashi, K. Nagasaki, H. Okada, K. Kondo, F. Sano, S. Besshou, Y. Nakamura, M. Nakasuga, Y. Manabe, H. Shidara, H. Kawazome, S. Maeno, T. Takamiya, M. Takeda, K. Tomiyama, H. Tsuru, Y. Ohno, H. Kubo, H. Yukimoto, M. Iriuchi and T. Obiki 313–316 (2003) 947
- Influence of the plasma on ICRF antenna voltage limits, V. Bobkov, J.-M. Norterdaeme, F. Wesner, R. Wilhelm and ASDEX Upgrade Team 313–316 (2003) 956
- ELM energy and particle losses and their extrapolation to burning plasma experiments, A. Loarte, G. Saibene, R. Sartori, M. Becoulet, L. Horton, T. Eich, A. Herrmann, M. Laux, G. Matthews, S. Jachmich, N. Asakura, A. Chankin, A. Leonard, G. Porter, G. Federici, M. Shimada, M. Sugihara and G. Janeschitz 313–316 (2003) 962
- On the measurement of molecular particle fluxes in fusion boundary plasmas, S. Brezinsek, P.T. Greenland, Ph. Mertens, A. Pospieszczyk, D. Reiter, U. Samm, B. Schweer and G. Sergienko 313–316 (2003) 967
- Anomalous particle transport and flow shear in the edge region of RFPs, V. Antoni, H. Bergsaker, G. Serianni, M. Spolaore, N. Vianello, R. Cavazzana, G. Regnoli, E. Spada, E. Martines, M. Bagatin and J.R. Drake 313–316 (2003) 972
- Plasma-wall interactions and radial electric fields in the reversed field pinch RFX, L. Carraro, M.E. Puiatti, F. Sattin, P. Scarin, M. Spolaore, M. Valisa, B. Zaniol and P. Zanca 313–316 (2003) 976
- Divertor detachment during pure helium plasmas in JET, M. Wischmeier, D. Coster, X. Bonnin, T. Eich, A. Huber, C. Ingesson, S. Jachmich, A. Kukushkin, A. Loarte, G.F. Matthews, R.A. Pitts, J. Rapp, D. Reiter, E. Tsitrone and Contributors EFDA-JET Work Programme 313–316 (2003) 980
- E × B**-drift, current, and kinetic effects on divertor plasma profiles during ELMs, T.D. Rognlien and M. Shimada 313–316 (2003) 1000
- Heat flux scaling experiments in NSTX, R. Maingi, H.W. Kugel, C.J. Lasnier, A.L. Roquemore, V.A. Soukhannovskii, C.E. Bush and The NSTX Team 313–316 (2003) 1005
- Two-dimensional modelling for HT-7U tokamak divertor, Y. Chen 313–316 (2003) 1015
- Hierarchy tests of edge transport models (BoRiS, UEDGE), J. Riemann, M. Borchardt, R. Schneider, X. Bonnin, A. Mutzke, T. Rognlien and M. Umansky 313–316 (2003) 1030
- Runaway effects at the plasma boundary in ISTTOK, V.V. Plyusnin, J.A.C. Cabral, H. Figueiredo and C.A.F. Varandas 313–316 (2003) 1052
- Deuterium to helium plasma-wall change-over experiments in the JET MkII-gas

- box divertor, D.L. Hillis, T. Loarer, J. Bucalossi, A. Pospieszczyk, W. Fundamenski, G. Matthews, A. Meigs, P. Morgan, V. Phillips, R. Pitts, M. Stamp, M. von Hellermann and EFDA-JET workprogramme contributors 313–316 (2003) 1061
- High time-resolved, 2D imaging of type-I ELMs in DIII-D using a image-intensified CID camera, M. Groth, M.E. Fenstermacher, J.A. Boedo, N.H. Brooks, D.S. Gray, C.J. Lasnier, A.W. Leonard, G.D. Porter and J.G. Watkins 313–316 (2003) 1071
- The influence of the divertor magnetic configuration and of ELM frequency on target heat fluxes in MAST, A. Kirk, J.-W. Ahn, G.F. Counsell and The MAST Team 313–316 (2003) 1081
- Simulation of the effect of plasma flows in DIII-D, JET, and JT-60U, G.D. Porter, T.D. Rognlien, M.E. Rensink, A. Loarte, N. Asakura, H. Takenaga, G. Matthews and Contributors to the EFDA-JET Work Programme 313–316 (2003) 1085
- A new plasma condensation phenomenon in the W7-AS island divertor, U. Wenzel, K. McCormick, N. Ramasubramanian, P. Grigull and R. König 313–316 (2003) 1098
- Bolometric images of the three-dimensional structure of asymmetric radiative collapse in LHD, N. Ashikawa, B.J. Peterson, S. Sudo, A.Yu. Kostrioukov, Y. Xu, M. Shoji, T. Watanabe, M. Osakabe, S. Morita, M. Goto and LHD Experimental Group 313–316 (2003) 1103
- Dusty sheaths in plasmas, O.Yu. Kravchenko, Yu.I. Chutov, W.J. Goedheer, R.D. Smirnov and S. Takamura 313–316 (2003) 1109
- Angular dependence of the floating potential in a magnetized plasma, B. Koch, W. Bohmeyer and G. Fussmann 313–316 (2003) 1114
- Particle-in-cell simulations of the plasma-wall transition with a magnetic field almost parallel to the wall, D. Tskhakaya and S. Kuhn 313–316 (2003) 1119
- Control of divertor heat load by Ar injection with keeping high performance in ELMy H-mode plasmas on JT-60U, S. Higashijima, N. Asakura, H. Kubo, Y. Miura, T. Nakano, S. Konoshima, K. Itami, S. Sakurai, H. Takenaga, H. Tamai and The JT-60 Team 313–316 (2003) 1123
- Island divertor experiments on the Wendelstein 7-AS stellarator, K. McCormick, P. Grigull, R. Burhenn, R. Brakel, H. Ehmler, Y. Feng, R. Fischer, F. Gadelmeier, L. Giannone, D. Hildebrandt, M. Hirsch, E. Holz, R. Jaenicke, J. Kisslinger, T. Klinger, S. Klose, J.P. Knauer, R. König, G. Kühner, H.P. Laqua, D. Naujoks, H. Niedermeyer, E. Pasch, N. Ramasubramanian, N. Rust, F. Sardei, F. Wagner, A. Weller, U. Wenzel and A. Werner 313–316 (2003) 1131
- Effect upon the core plasma radiation due to high power laser injection onto C, W and Ta test-limiters in TEXTOR, T. Ohgo, M. Wada, K. Ohya, T. Hirai, W. Biel, T. Tanabe, K. Kondo, J. Rapp, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk, G. Bertschinger and N. Noda 313–316 (2003) 1156
- Flow measurements in the scrape-off layer of Alcator C-Mod using impurity plumes, S. Gangadhara and B. LaBombard 313–316 (2003) 1167
- Impurity radiation during ‘breathing’-like oscillations in LHD discharges using a wall limiter, B.J. Peterson, K. Sato, J.E. Rice, S. Morita, M. Goto, M. Osakabe, K. Tanaka, T. Tokuzawa, K. Kawahata, S. Masuzaki, S. Sakakibara, Y. Xu, A.Yu. Kostrioukov, N. Ashikawa, N. Noda, Y. Nakamura, H. Yamada, O. Kaneko, A. Komori, K. Yamazaki, S. Sudo and LHD Experiment Group 313–316 (2003) 1178
- Impurity generation and suppression during IBW heating in HT-7, J. Li, Y.P. Zhao, B.N. Wan, J.Y. Zhao, T. Watari, T. Seki and HT-7 team 313–316 (2003) 1188
- Comparison of carbon and main ion radiation profiles in matched helium and deuterium plasmas in JET, M.E. Fenstermacher, K.D. Lawson, G.D. Porter, S.K. Erents, C. Ingesson, G.F. Matthews, G.M. McCracken, V. Philipps, R.A. Pitts, M.F. Stamp and Contributors to the EFDA-JET Workprogramme 313–316 (2003) 1206
- Methane penetration in DIII-D ELMing H-mode plasmas, W.P. West, C.J. Lasnier, D.G. Whyte, R.C. Isler, T.E. Evans, G.L. Jackson, D. Rudakov, M.R. Wade and J. Strachan 313–316 (2003) 1211
- Modeling of tungsten transport in the SOL for sources at the central column of ASDEX Upgrade using DIVIMP, A. Geier, K. Krieger, J.D. Elder, R. Pugno, V. Rohde and The ASDEX Upgrade Team 313–316 (2003) 1216
- Modeling of ELM events and their effect on impurity enrichment, J. Hogan, R. Colchin, D. Coster, L. Baylor, M. Fenstermacher, M. Groth and M. Wade 313–316 (2003) 1221
- Heat flux pattern on the toroidal pump limiter of Tore Supra: first observa-

- tions and preliminary analysis, R. Mitteau, J.C. Vallet, A. Moal, D. Guilhem, J. Schlosser, T. Loarer, B. Riou, A. Grosman, A. Géraud, Ph. Ghendrih, E. Tsitrone, B. Pegourié and J.M. Ané 313–316 (2003) 1229
- Effects of trapped particles on distribution of divertor flow in Heliotron-E, V.S. Voitsenya, V.V. Chechkin, T. Mizuuchi, K. Nagasaki, M. Nakasuga, H. Okada, S. Besshou, K. Kondo, F. Sano, T. Obiki, S. Masuzaki, O. Motojima and L.E. Sorokovoj 313–316 (2003) 1234
- Disruptions – a proposal for their mitigation by runaway suppression, K.H. Finken, A. Kraemer-Flecken, M. Lehnen and A. Savtchkov 313–316 (2003) 1247
- Studies of detached plasmas on the ULS divertor simulator, K.J. Gibson, P.K. Browning, B. Mihaljeic, D.A. Ford and J. Hugill 313–316 (2003) 1253
- Effect of plasma shape on particle flux and particle removal in DIII-D, J.G. Watkins, T.W. Petrie, C.J. Lasnier, S.L. Allen, M.E. Fenstermacher, T.C. Luce, M.A. Mahdavi, R. Maingi, L.W. Owen, M.E. Rensink and M.R. Wade 313–316 (2003) 1258
- Experiments on selective removal of helium by an application of radio frequency field, T. Shoji, Y. Sakawa, N. Tamura, S. Jachmich, G. Mank and K.H. Finken 313–316 (2003) 1262
- Edge plasma control with a local island divertor, A. Komori, T. Morisaki, R. Sakamoto, N. Ohayabu, S. Morita, B.J. Perterson, S. Masuzaki, H. Suzuki, M. Shoji, Y. Nakamura, S. Sakakibara, K. Narihara, N. Noda, O. Motojima and The LHD Experimental Group 313–316 (2003) 1267
- Modeling of coupled edge stochastic and core resonant magnetic field effects in diverted tokamaks, T.E. Evans and R.A. Moyer 313–316 (2003) 1282
- Influence of magnetic field configurations on divertor plasma parameters in the W7-AS stellarator, P. Grigull, K. McCormick, Y. Feng, A. Werner, R. Brakel, H. Ehmler, F. Gadelmeier, D. Hartmann, D. Hildebrandt, R. Jaenicke, J. Kisslinger, T. Klinger, R. König, D. Naujoks, H. Niedermeyer, N. Ramasubramanian, F. Sardei, F. Wagner, U. Wenzel and The W7-AS Team 313–316 (2003) 1287
- Plasma boundary considerations for the national compact stellarator experiment, P. Mioduszewski, A. Grossman, M. Fenstermacher, A. Koniges, L. Owen, T. Rognlien and M. Umansky 313–316 (2003) 1304
- H-mode barrier control with external magnetic perturbations, A. Grosman, J.-M. Ané, P. Barabaschi, K.H. Finken, A. Mahdavi, Ph. Ghendrih, G. Huysmans, M. Lipa, P.R. Thomas and E. Tsitrone 313–316 (2003) 1314
- Power deposition behaviour on the neutralizer plates during detachment with the ergodic divertor on Tore Supra, L. Costanzo, T. Loarer, Ph. Ghendrih, J.P. Gunn and B. Pégourié 313–316 (2003) 1321
- Characteristics of boundary plasmas after the removal of divertor baffle plates and boronization on JFT-2M, H. Kawashima, S. Sengoku, K. Tsuzuki, H. Ogawa and H. Kimura 313–316 (2003) 1338
- Plasma Properties (includes Plasma Disruption)**
- Key ITER plasma edge and plasma–material interaction issues, G. Federici, P. Andrew, P. Barabaschi, J. Brooks, R. Doerner, A. Geier, A. Herrmann, G. Janeschitz, K. Krieger, A. Kukushkin, A. Loarte, R. Neu, G. Saini, M. Shimada, G. Strohmayer and M. Sugihara 313–316 (2003) 11
- PSI issues toward steady state plasmas in the HT-7 tokamak, B. Wan, J. Li, J. Zhao, J. Chen, Y. Zhao and HT-7 Team 313–316 (2003) 127
- Impurity desorption behavior from low activation ferritic steel installed in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, H. Ogawa, H. Kimura, F. Okano, S. Suzuki, M. Komata, M. Sawahata, K. Shinohara, K. Kamiya, T. Shibata, T. Akiyama, M. Yamamoto and K. Miyachi 313–316 (2003) 177
- Wall conditioning for performance improvement in the divertor reversed field pinch TPE-2M, K. Hayase, Y. Sato and S. Kiyama 313–316 (2003) 230
- Boundary plasma behavior under different wall conditions on HT-7 tokamak, G.S. Xu, M. Song, B.N. Wan, B.L. Ling, C.F. Li, J. Li and HT-7 Team 313–316 (2003) 259
- Modeling of hydrocarbon species in ECR methane plasmas, K. Matyash, R. Schneider, A. Bergmann, W. Jacob, U. Fantz and P. Pecher 313–316 (2003) 434
- Static and dynamic properties of wall recycling in TRIAM-1M, M. Sakamoto, H. Nakashima, S. Kawasaki, A. Iyomasa, S.V. Kulkarni, M. Hasegawa, E. Jotaki, H. Zushi, K. Nakamura, K. Hanada and S. Itoh 313–316 (2003) 519
- Density limits in helium plasmas at JET, J. Rapp, A. Huber, L.C. Ingesson, S. Jachmich, G.F. Matthews,

- V. Philipps, R. Pitts and Contributors to the EFDA-JET work programme 313–316 (2003) 524
- Comparison of fueling efficiency from different fueling locations on DIII-D, L.R. Baylor, T.C. Jernigan, R.J. Colchin, G.L. Jackson, L.W. Owen and T.W. Petrie 313–316 (2003) 530
- Fueling efficiency of gas puffing on large helical device, J. Miyazawa, S. Masuzaki, H. Yamada, H. Suzuki, M. Goto, S. Morita, S. Murakami, K. Narihara, M. Osakabe, B.J. Peterson, S. Sakakibara, K. Tanaka, O. Kaneko, A. Komori, K. Matsuoka, O. Motojima and LHD experimental Group 313–316 (2003) 534
- Supersonic gas injection on Tore Supra, B. Pégourié, E. Tsitrone, R. Dejarnac, J. Bucalossi, G. Martin, J. Gunn, D. Frigione, D. Reiter, P. Ghendrih and C. Clément 313–316 (2003) 539
- Ergodic edge region of large helical device, T. Morisaki, K. Narihara, S. Masuzaki, S. Morita, M. Goto, A. Komori, N. Ohyabu, O. Motojima, K. Matsuoka LHD Experimental Group 313–316 (2003) 548
- Fueling experiments using neutral beam injection in the GAMMA 10 tandem mirror, Y. Nakashima, T. Kato, Y. Ishimoto, K. Orito, T. Natori, T. Fukasawa, K. Watanabe, S. Kobayashi, M. Shoji, Y. Kubota, E. Kawamori, M. Yoshikawa, I. Kata numa, M. Ichimura, T. Cho and K. Yatsu 313–316 (2003) 553
- Role of neutrals in core fueling and pedestal structure in H-mode DIII-D discharges, N.S. Wolf, T.W. Petrie, G.D. Porter, T.D. Rognlien, R.J. Groebner and M.A. Mahdavi 313–316 (2003) 564
- Core fueling and edge particle flux analysis in ohmically and auxiliary heated NSTX plasmas, V.A. Soukharevskii, R. Maini, R. Raman, H.W. Kugel, B.P. LeBlanc, A.L. Roquemore, C.H. Skinner and NSTX Research Team 313–316 (2003) 573
- Scaling of ITER divertor parameters – interpolation from 2D modelling and extrapolation, H.D. Pacher, A.S. Kukushkin, G.W. Pacher and G. Janeschitz 313–316 (2003) 657
- Emissive probe measurement of electron temperature in recombining plasma produced in the linear divertor simulator TPD-II, A. Matsubara, T. Sugimoto, T. Shibuya, K. Kawamura, S. Sudo and K. Sato 313–316 (2003) 720
- Observations with a mid-plane reciprocating probe in MAST, Y. Yang, G.F. Counsell and The MAST team 313–316 (2003) 734
- Transport of ELM energy and particles into the SOL and divertor of DIII-D, A.W. Leonard, J.A. Boedo, M.E. Fenstermacher, R.J. Groebner, M. Goth, C.J. LaSnier, M.A. Mahdavi, T.H. Osborne, D.L. Rudakov, T.W. Petrie and J.G. Watkins 313–316 (2003) 768
- Comparing scrape-off layer and divertor physics in JET pure He and D discharges, R.A. Pitts, P. Andrew, Y. Andrew, M. Becoulet, I. Coffey, D. Coster, D.C. McDonald, T. Eich, S.K. Erents, M.E. Fenstermacher, W. Fundamenski, G. Haas, A. Hermann, C. Hidalgo, D. Hillis, A. Huber, L.C. Ingesson, S. Jachmich, A. Kallenbach, A. Korotkov, K. Lawson, P. Lomas, T. Loarer, A. Loarte, G.F. Matthews, G. McCracken, A. Meigs, Ph. Mertens, M. OMullane, V. Philipp, G. Porter, A. Pospieszczyk, J. Rapp, D. Reiter, V. Riccardo, G. Saibene, R. Sartori, M.F. Stamp, E. Tsitrone, M. Wischmeier, J. Gafert and Contributors to the EFDA-JET workprogramme 313–316 (2003) 777
- Narrow power profiles seen at JET and their relation to ion orbit losses, W. Fundamenski, S. Sipilä, T. Eich, T. Kiviniemi, T. Kurki-Suonio, G. Matthews, V. Riccardo and Contributors to the EFDA-JET work programme 313–316 (2003) 787
- Intermittent convection in the boundary of DIII-D, J.A. Boedo, D.L. Rudakov, R.J. Colchin, R.A. Moyer, S. Krasheninnikov, D.G. Whyte, G.R. McKee, G. Porter, M.J. Schaffer, P.C. Stangeby, W.P. West, S.L. Allen and A.W. Leonard 313–316 (2003) 813
- Plasma flow measurement in high- and low-field-side SOL and influence on the divertor plasma in JT-60U, N. Asakura, S. Sakurai, K. Itami, O. Naito, H. Takenaga, S. Higashijima, Y. Koide, Y. Sakamoto, H. Kubo and G.D. Porter 313–316 (2003) 820
- Influence of plasma-wall interactions on the behaviour of ELMs in JT-60U, A.V. Chankin, N. Asakura, T. Fukuda, A. Isayama, K. Itami, Y. Kamada, H. Kubo, Y. Miura, T. Nakano, N. Oyama, S. Takeji and H. Takenaga 313–316 (2003) 828
- Impact of wall conditioning and gas fuelling on the enhanced confinement modes in TJ-II, F.L. Tabarés, D. Tafalla, R. Balbín, B. Brañas, T. Estrada, I. García-Cortés, F. Medina and M.A. Ochando 313–316 (2003) 839
- Radiation transfer in dense edge plasmas and divertors: experimental and recent computational results, D. Reiter, S. Wiesen and M. Born 313–316 (2003) 845
- The relation between edge and divertor plasmas in the Large Helical Device,

- S. Masuzaki, N. Ohyabu, T. Morisaki, M. Goto, K. Kawahata, A. Komori, S. Morita, K. Narihara, B.J. Peterson, K. Tanaka, T. Tokuzawa, O. Motojima and LHD Experimental Group 313–316 (2003) 852
- Modelling of island divertor physics and comparison to W7-AS experimental results, Y. Feng, F. Sardei, P. Grigull, K. McCormick, L. Giannone, J. Kisslinger, D. Reiter, Y. Igitkhanov and U. Wenzel 313–316 (2003) 857
- Experimental evidence of fluctuations and flows near marginal stability and dynamical interplay between gradients and transport in the JET plasma boundary region, C. Hidalgo, B. Gonçalves, M.A. Pedrosa, C. Silva, R. Balbin, M. Hron, A. Loarte, K. Erents, G.F. Matthews and R. Pitts 313–316 (2003) 863
- Edge plasma effects in DIII-D impurity seeded discharges, G.L. Jackson, J.A. Boedo, C.J. Lasnier, A.W. Leonard, G.R. McKee, M. Murakami, M.R. Wade, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 878
- Two-dimensional distribution of divertor radiation in JT-60U, S. Konoshima, H. Tamai, Y. Miura, S. Higashijima, H. Kubo, S. Sakurai, K. Shimizu, T. Takizuka, Y. Koide, T. Hatae and H. Takenaga 313–316 (2003) 888
- Numerical simulation of plasma profile changes in TEXTOR by externally driven radial polarization currents, H. Gerhauser, R. Zagórska, S. Jachmich and M. VanSchoor 313–316 (2003) 893
- Scrape-off layer features of the QH-mode, C.J. Lasnier, K.H. Burrell, J.S. de Grassie, A.W. Leonard, R.A. Moyer, G.D. Porter, J.G. Watkins and DIII-D team 313–316 (2003) 904
- Improved modelling of detachment and neutral-dominated regimes using the SOLPSB2-Eirene code, X. Bonnin, D. Coster, C.S. Pitcher, R. Schneider, D. Reiter, V. Rozhansky, S. Voskoboynikov and H. Bürbamer 313–316 (2003) 909
- Predicted effects of parallel temperature gradients on the overestimation of TCV divertor target Langmuir probe T_e measurements, J. Horacek, R.A. Pitts, P.C. Stangeby, O. Batishchev and A. Loarte 313–316 (2003) 931
- Analysis of the progress to detachment in the divertor of the MAST tokamak, A. Tabasso, J. Dowling, J.-W. Ahn, G. Cunningham, A. Kirk, G. McArdle, M. Price and The MAST Team 313–316 (2003) 936
- Wall conditioning and power balance for spheromak plasmas in SSPX, D.N. Hill, R.D. Wood, R. Bulmer, H.S. McLean, D. Ryutov, B.W. Stallard and S. Woodruff 313–316 (2003) 941
- Asymmetric divertor plasma distribution observed in Heliotron J ECH discharges, T. Mizuuchi, W.L. Ang, Y. Nishioka, T. Kobayashi, K. Nagasaki, H. Okada, K. Kondo, F. Sano, S. Besshou, Y. Nakamura, M. Nakasuga, Y. Manabe, H. Shidara, H. Kawazome, S. Maeno, T. Takamiya, M. Takeda, K. Tomiyama, H. Tsuru, Y. Ohno, H. Kubo, H. Yukimoto, M. Iriguchi and T. Obiki 313–316 (2003) 947
- Confinement and gas fueling in LHD limiter discharges, K. Nishimura, K. Kawahata, K. Narihara, T. Morisaki, S. Masuzaki, S. Sakakibara, K. Tanaka and LHD Experimental Group 313–316 (2003) 952
- Influence of the plasma on ICRF antenna voltage limits, V. Bobkov, J.-M. Norterdaeme, F. Wesner, R. Wilhelm and ASDEX Upgrade Team 313–316 (2003) 956
- ELM energy and particle losses and their extrapolation to burning plasma experiments, A. Loarte, G. Saibene, R. Sartori, M. Becoulet, L. Horton, T. Eich, A. Herrmann, M. Laux, G. Matthews, S. Jachmich, N. Asakura, A. Chankin, A. Leonard, G. Porter, G. Federici, M. Shimada, M. Sugihara and G. Janeschitz 313–316 (2003) 962
- Anomalous particle transport and flow shear in the edge region of RFPs, V. Antoni, H. Bergsaker, G. Serianni, M. Spolaore, N. Vianello, R. Cavazzana, G. Regnoli, E. Spada, E. Martines, M. Bagatin and J.R. Drake 313–316 (2003) 972
- Plasma-wall interactions and radial electric fields in the reversed field pinch RFX, L. Carraro, M.E. Puiatti, F. Sattin, P. Scarin, M. Spolaore, M. Valisa, B. Zaniol and P. Zanca 313–316 (2003) 976
- The effect of ion orbit losses on JET edge plasma simulations, G.F. Matthews, G. Corrigan, S.K. Erents, W. Fundamenski, A. Kallenbach, T. Kurki-Suonio, S. Silpää, J. Spence and Contributors to the EFDA-JET Workprogramme 313–316 (2003) 986
- Toroidal rotation as an explanation for plasma flow observations in the Alcator C-Mod scrape-off layer, B. LaBombard, S. Gangadhara, B. Lipschultz and C.S. Pitcher 313–316 (2003) 995
- $E \times B$ -drift, current, and kinetic effects on divertor plasma profiles during ELMs, T.D. Rognlien and M. Shimada 313–316 (2003) 1000
- Heat flux scaling experiments in NSTX, R. Maingi, H.W. Kugel, C.J. Lasnier,

- A.L. Roquemore, V.A. Soukhonovskii, C.E. Bush and The NSTX Team 313–316 (2003) 1005
- Neutralization loss of high energy particles in the plasma boundary of LHD, M. Sasao, M. Isobe, T. Seki, K. Saito, T. Saida, S. Murakami, A.V. Krasilnikov and LHD-Experimental Group 313–316 (2003) 1010
- Current measurements in the scrape-off layer of Tore Supra with the new CIEL limiter, M. Lehnert, T. Loarer, J. Gunn, J. Hourtoule, J.-L. La-chambre and P. Spuijg 313–316 (2003) 1025
- Effect of transport on MAR in detached divertor plasma, K. Miyamoto, A. Hatayama, Y. Ishii, T. Miyamoto and A. Fukano 313–316 (2003) 1036
- Asymmetry of dense divertor plasmas influenced by thermoelectric potential and charge-exchange momentum loss, N. Hayashi, T. Takizuka, M. Hosokawa and K. Shimizu 313–316 (2003) 1041
- Observation of molecular assisted recombination via negative ions formation in a divertor plasma simulator, TPDSHEET-IV, A. Tonegawa, M. Ono, Y. Morihira, H. Ogawa, T. Shibuya, K. Kawamura and K. Takayama 313–316 (2003) 1046
- Runaway effects at the plasma boundary in ISTTOK, V.V. Plyusnin, J.A.C. Cabral, H. Figueiredo and C.A.F. Varandas 313–316 (2003) 1052
- Modeling approach to a 3D simulation of transport in TEXTOR-DED laminar zone with a finite element method, M. Kobayashi, D. Reiser, G. Sewell, K.H. Finken and S.S. Abdullaev 313–316 (2003) 1056
- Neutral transport simulations of gas puff imaging experiments, D.P. Stotler, B. LaBombard, J.L. Terry and S.J. Zweben 313–316 (2003) 1066
- DIII-D edge plasma simulations with UEDGE code including non-diffusive anomalous cross-field transport, A.Yu. Pigarov, S.I. Krasheninnikov, W.P. West, T.D. Rognlien, J.A. Boedo, D.G. Whyte, C.J. Lasnier, T.W. Petrie, M.J. Schaffer and J.G. Watkins 313–316 (2003) 1076
- The influence of the divertor magnetic configuration and of ELM frequency on target heat fluxes in MAST, A. Kirk, J.-W. Ahn, G.F. Counsell and The MAST Team 313–316 (2003) 1081
- Simulation of the effect of plasma flows in DIII-D, JET, and JT-60U, G.D. Porter, T.D. Rognlien, M.E. Rensink, A. Loarte, N. Asakura, H. Takenaga, G. Matthews and Contributors to the EFDA-JET Work Programme 313–316 (2003) 1085
- A new plasma condensation phenomenon in the W7-AS island divertor, U. Wenzel, K. McCormick, N. Ramasubramanian, P. Grigull and R. König 313–316 (2003) 1098
- Control of divertor heat load by Ar injection with keeping high performance in ELM-My H-mode plasmas on JT-60U, S. Higashijima, N. Asakura, H. Kubo, Y. Miura, T. Nakano, S. Konoshima, K. Itami, S. Sakurai, H. Takenaga, H. Tamai and The JT-60 Team 313–316 (2003) 1123
- Island divertor experiments on the Wendelstein 7-AS stellarator, K. McCormick, P. Grigull, R. Burhenn, R. Brakel, H. Ehmler, Y. Feng, R. Fischer, F. Gadelmeier, L. Giannone, D. Hildebrandt, M. Hirsch, E. Holzhauer, R. Jaenicke, J. Kisslinger, T. Klinger, S. Klose, J.P. Knauer, R. König, G. Kühner, H.P. Laqua, D. Naujoks, H. Niedermeyer, E. Pasch, N. Ramasubramanian, N. Rust, F. Sardei, F. Wagner, A. Weller, U. Wenzel and A. Werner 313–316 (2003) 1131
- Accumulation of impurities in advanced scenarios, R. Dux, C. Giroud, R. Neu, A.G. Peeters, J. Stober, K.-D. Zastrow, Contributors to the EFDA-JET Workprogramme and ASDEX Upgrade Team 313–316 (2003) 1150
- Transport analysis of tungsten impurity in ITER, Y. Murakami, T. Amano, K. Shimizu and M. Shimada 313–316 (2003) 1161
- Flow measurements in the scrape-off layer of Alcator C-Mod using impurity plumes, S. Gangadhara and B. LaBombard 313–316 (2003) 1167
- Radiation enhancement and impurity behavior in JT-60U reversed shear discharges, H. Kubo, S. Sakurai, S. Higashijima, H. Takenaga, K. Itami, S. Konoshima, T. Nakano, Y. Koide, N. Asakura, K. Shimizu, T. Fujita and K.W. Hill 313–316 (2003) 1197
- Comparison of carbon and main ion radiation profiles in matched helium and deuterium plasmas in JET, M.E. Fenstermacher, K.D. Lawson, G.D. Porter, S.K. Erents, C. Ingesson, G.F. Matthews, G.M. McCracken, V. Philipps, R.A. Pitts, M.F. Stamp and Contributors to the EFDA-JET Workprogramme 313–316 (2003) 1206
- Modeling of ELM events and their effect on impurity enrichment, J. Hogan, R. Colchin, D. Coster, L. Baylor, M. Fenstermacher, M. Groth and M. Wade 313–316 (2003) 1221
- Disruptions – a proposal for their mitigation by runaway suppression, K.H.

- Finken, A. Kraemer-Flecken, M.
Lehnert and A. Savtchkov 313–316 (2003) 1247
- Studies of detached plasmas on the ULS divertor simulator, K.J. Gibson, P.K. Browning, B. Mihaljcic, D.A. Ford and J. Hugill 313–316 (2003) 1253
- Effect of plasma shape on particle flux and particle removal in DIII-D, J.G. Watkins, T.W. Petrie, C.J. Lasnier, S.L. Allen, M.E. Fenstermacher, T.C. Luce, M.A. Mahdavi, R. Maingi, L.W. Owen, M.E. Rensink and M.R. Wade 313–316 (2003) 1258
- Experiments on selective removal of helium by an application of radio frequency field, T. Shoji, Y. Sakawa, N. Tamura, S. Jachmich, G. Mank and K.H. Finken 313–316 (2003) 1262
- Edge plasma control with a local island divertor, A. Komori, T. Morisaki, R. Sakamoto, N. Ohyabu, S. Morita, B.J. Peterson, S. Masuzaki, H. Suzuki, M. Shoji, Y. Nakamura, S. Sakakibara, K. Narihara, N. Noda, O. Motojima and The LHD Experimental Group 313–316 (2003) 1267
- Control of rotating helical magnetic field penetration into tokamak plasmas using electrode biasing in HYBTOK-II, Y. Kikuchi, V.P. Budaev, M. Toyoda, Y. Uesugi and S. Takamura 313–316 (2003) 1272
- Modeling of coupled edge stochastic and core resonant magnetic field effects in diverted tokamaks, T.E. Evans and R.A. Moyer 313–316 (2003) 1282
- Influence of magnetic field configurations on divertor plasma parameters in the W7-AS stellarator, P. Grigull, K. McCormick, Y. Feng, A. Werner, R. Brakel, H. Ehmler, F. Gadelmeier, D. Hartmann, D. Hildebrandt, R. Jaenicke, J. Kisslinger, T. Klinger, R. König, D. Naujoks, H. Niedermeyer, N. Ramasubramanian, F. Sardei, F. Wagner, U. Wenzel and The W7-AS Team 313–316 (2003) 1287
- Transport in complex magnetic geometries: 3D modelling of ergodic edge plasmas in fusion experiments, A. Runov, S. Kasilov, D. Reiter, N. McTaggart, X. Bonnin and R. Schneider 313–316 (2003) 1292
- Effect of rotating helical magnetic field on the turbulence fractal structure and transport in the tokamak edge, V.P. Budaev, Y. Kikuchi, M. Toyoda, Y. Uesugi and S. Takamura 313–316 (2003) 1309
- Two-dimensional particle simulation of the flow control in SOL and divertor plasmas, T. Takizuka, M. Hosokawa and K. Shimizu 313–316 (2003) 1331
- Potential formation and ion distribution function in expanding magnetic field to divertor region, Y. Tomita 313–316 (2003) 1335
- Characteristics of boundary plasmas after the removal of divertor baffle plates and boronization on JFT-2M, H. Kawashima, S. Sengoku, K. Tsuzuki, H. Ogawa and H. Kimura 313–316 (2003) 1338
- Polymers**
- Transport and condensation of soft a-C:H film thermal decomposition products, A.E. Gorodetsky, R.Kh. Zalavutdinov, I.I. Arkhipov, V.Kh. Alimov, A.P. Zakharov, S.P. Vnukov, V.L. Bukhovets and I.G. Varshavskaya 313–316 (2003) 460
- Processing**
- The conditioning procedures in Tore Supra after CIEL implementation, J. Bucalossi, C. Brosset, D. Garnier, C. Grisolia, A. Grosman, G. Martin and F. Saint Laurent 313–316 (2003) 263
- Proton Irradiation**
- Ablation rate estimation of inertial fusion reactor candidate material with intense ion beam and X-ray, K. Kasuya, A. Kasamatsu, Y. Kinoshita, T. Kamiya, A. Saiki, T.J. Renk and C.L. Olson 313–316 (2003) 235
- Radiation Effects: Extended Defects, Microstructures**
- Surface morphology and helium retention on tungsten exposed to low energy and high flux helium plasma, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 313–316 (2003) 92
- Incident ion energy dependence of bubble formation on tungsten surface with low energy and high flux helium plasma irradiation, D. Nishijima, M.Y. Ye, N. Ohno and S. Takamura 313–316 (2003) 97
- B₄C-limiter experiments at TEXTOR, A. Pospieszczyk, B. Schweer, V. Philipps, A. Huber, G. Sergienko, U. Samm, H. Reimer, M. Freisinger, M. Rubel, A. Herrmann, S. Köllerl, M. Laux, H. Renner and H. Bolt 313–316 (2003) 223
- Deuterium retention in tungsten in dependence of the surface conditions, O.V. Ogorodnikova, J. Roth and M. Mayer 313–316 (2003) 469
- Radiation Effects: Physical Properties**
- Characteristics of boundary plasmas after the removal of divertor baffle plates and boronization on JFT-2M, H.

- Kawashima, S. Sengoku, K. Tsuzuki, H. Ogawa and H. Kimura 313–316 (2003) 1338
- Radiation Sources**
- Thermal annealing effects on chemical states of deuterium implanted into boron coating film, H. Kodama, T. Sugiyama, Y. Morimoto, Y. Oya, K. Okuno, N. Inoue, A. Sagara and N. Noda 313–316 (2003) 153
- Bolometric images of the three-dimensional structure of asymmetric radiative collapse in LHD, N. Ashikawa, B.J. Peterson, S. Sudo, A.Yu. Kostrioukov, Y. Xu, M. Shoji, T. Watanabe, M. Osakabe, S. Morita, M. Goto and LHD Experimental Group 313–316 (2003) 1103
- Redeposition**
- Helical divertor operation and erosion/deposition at target surfaces in LHD, A. Sagara, S. Masuzaki, T. Morisaki, S. Morita, H. Funaba, M. Goto, Y. Nakamura, K. Nishimura, N. Noda, M. Shoji, H. Suzuki, A. Takayama, A. Komori, N. Ohayabu, O. Motojima, K. Morita, K. Ohya, J.P. Sharpe and LHD Experimental Group 313–316 (2003) 1
- Arcing at B₄C-covered limiters exposed to a SOL-plasma, M. Laux, W. Schneider, P. Wienhold, B. Jüttner, A. Huber, M. Balden, J. Linke, H. Kostial, M. Mayer, M. Rubel, A. Herrmann, A. Pospieszczyk, S. Jachmich, B. Schweer, D. Hildebrandt and H. Bolt 313–316 (2003) 62
- Performance and erosion of a tungsten brush limiter exposed at the TEXTOR tokamak, T. Hirai, V. Philipps, A. Huber, G. Sergienko, J. Linke, T. Wakui, T. Tanabe, M. Rubel, M. Wada, T. Ohgo, A. Pospieszczyk and K. Ohya 313–316 (2003) 67
- Material properties of co-deposition formed on plasma facing materials in all-metal machine TRIAM-1M, M. Miyamoto, K. Tokunaga, T. Fujiwara, N. Yoshida, TRIAM group, Y. Morimoto, T. Sugiyama and K. Okuno 313–316 (2003) 82
- Molecular dynamics calculation of carbon/hydrocarbon reflection coefficients on a hydrogenated graphite surface, D.A. Alman and D.N. Ruzic 313–316 (2003) 182
- Short and long range transport of materials eroded from wall components in fusion devices, P. Wienhold, V. Philipps, A. Kirschner, A. Huber, J. von Seggern, H.G. Esser, D. Hildebrandt, M. Mayer, M. Rubel and W. Schneider 313–316 (2003) 311
- Erosion and migration of tungsten employed at the main chamber first wall of ASDEX Upgrade, K. Krieger, A. Geier, X. Gong, H. Maier, R. Neu and V. Rohde 313–316 (2003) 327
- On the formation of a-C:D layers and parasitic plasmas underneath the roof baffle of the ASDEX Upgrade divertor, V. Rohde and M. Mayer 313–316 (2003) 337
- Experimental modeling of transport and deposition of hydrocarbon radicals on ITER-FEAT cold trap, I.I. Arkhipov, V.L. Bukhovets, A.K. Buryak, G. Federici, A.E. Gorodetsky, C. Ibbott, D.A. Komarov, A.N. Makhankov, A. Markin, I.V. Mazul, R. Tivey, I.G. Varshavskay, S.P. Vnukov, A.P. Zakharov, A.V. Ulianov and R.Kh. Zalavutdinov 313–316 (2003) 342
- Sputtering of carbon–tungsten mixed materials by low energy deuterium, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama, M. Dairaku and M. Akiba 313–316 (2003) 360
- Analyses of erosion and re-deposition layers on graphite tiles used in the W-shaped divertor region of JT-60U, Y. Gotoh, J. Yagyu, K. Masaki, K. Kizu, A. Kaminaga, K. Kodama, T. Arai, T. Tanabe and N. Miya 313–316 (2003) 370
- Erosion and deposition at the ALT-II limiter of TEXTOR, M. Mayer, P. Wienhold, D. Hildebrandt and W. Schneider 313–316 (2003) 377
- Erosion/deposition in JET during the period 1999–2001, J.P. Coad, P. Andrew, D.E. Hole, S. Lehto, J. Likonen, G.F. Matthews, M. Rubel and Contributors to the EFDA-JET work programme 313–316 (2003) 419
- Advances in the modeling of chemical erosion/redeposition of carbon divertors and application to the JET tritium codeposition problem, J.N. Brooks, A. Kirschner, D.G. Whyte, D.N. Ruzic and D.A. Alman 313–316 (2003) 424
- Characterisation of deposited hydrocarbon layers below the divertor and in the pumping ducts of ASDEX Upgrade, M. Mayer, V. Rohde, A. von Keudell and ASDEX Upgrade Team 313–316 (2003) 429
- Transport and condensation of soft a-C:H film thermal decomposition products, A.E. Gorodetsky, R.Kh. Zalavutdinov, I.I. Arkhipov, V.Kh. Alimov, A.P. Zakharov, S.P. Vnukov, V.L. Bukhovets and I.G. Varshavskaya 313–316 (2003) 460
- Tritium retention of plasma facing components in tokamaks, T. Tanabe, N.

- Bekris, P. Coad, C.H. Skinner, M. Glugla and N. Miya** 313–316 (2003) 478
- Tritium distribution on the surface of plasma facing carbon tiles used in JET, K. Sugiyama, K. Miyasaka, T. Tanabe, M. Glugla, N. Bekris and P. Coad 313–316 (2003) 507
- Modeling of global particle balance in steady-state magnetic fusion devices – Analysis of the recent data from the TRIAM-1M tokamak, Y. Hirooka, M. Sakamoto and The TRIAM group 313–316 (2003) 588
- Multi-dimensional impurity transport code by Monte Carlo method including gyro-orbit effects, I. Hyodo, M. Hirano, K. Miyamoto, K. Hoshino and A. Hatayama 313–316 (2003) 1183
- Modeling of tungsten transport in the SOL for sources at the central column of ASDEX Upgrade using DIVIMP, A. Geier, K. Krieger, J.D. Elder, R. Pugno, V. Rohde and The ASDEX Upgrade Team 313–316 (2003) 1216
- Safety of Nuclear Reactors and Components**
- Thermal annealing effects on chemical states of deuterium implanted into boron coating film, H. Kodama, T. Sugiyama, Y. Morimoto, Y. Oya, K. Okuno, N. Inoue, A. Sagara and N. Noda 313–316 (2003) 153
- Tritium distribution in JT-60U W-shaped divertor, K. Masaki, K. Sugiyama, T. Tanabe, Y. Gotoh, K. Miyasaka, K. Tobita, Y. Miyo, A. Kaminaga, K. Kodama, T. Arai and N. Miya 313–316 (2003) 514
- Silicon and Silicon Compounds**
- The longer life and high performance of lithium containing coatings developed by ICRF in the HT-7 superconducting tokamak, J.L. Chen, J.G. Li, B.N. Wan, Y.P. Zhao, X.D. Zhang, X.M. Gu, X.M. Wang, S.F. Li, N.C. Luo, C.F. Li, Q. Zhou, Z.W. Wu and HT-7 team 313–316 (2003) 140
- Sputtering of carbon–tungsten mixed materials by low energy deuterium, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama, M. Dairaku and M. Akiba 313–316 (2003) 360
- Blister formation and erosion due to blister fracture of SiC or Si, Y. Yamuchi, Y. Hirohata and T. Hino 313–316 (2003) 408
- Steels, Ferritic/Martensitic**
- PSI issues toward steady state plasmas in the HT-7 tokamak, B. Wan, J. Li, J. Zhao, J. Chen, Y. Zhao and HT-7 Team 313–316 (2003) 127
- Steels, Ferritic/Martensitic, Low Activation**
- Impurity desorption behavior from low activation ferritic steel installed in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, H. Ogawa, H. Kimura, F. Okano, S. Suzuki, M. Komata, M. Sawahata, K. Shinohara, K. Kamiya, T. Shibata, T. Akiyama, M. Yamamoto and K. Miyachi 313–316 (2003) 177
- Structural Materials**
- Suppression of hydrogen absorption to V–4Cr–4Ti alloy by TiO_x/TiC coating, Y. Hirohata, D. Motojima, T. Hino and S. Sengoku 313–316 (2003) 172
- Superconductors**
- Molecular dynamics studies of the sputtering of divertor materials, E. Salonen, K. Nordlund, J. Keinonen and C.H. Wu 313–316 (2003) 404
- Surface Effects**
- Helical divertor operation and erosion/deposition at target surfaces in LHD, A. Sagara, S. Masuzaki, T. Morisaki, S. Morita, H. Funaba, M. Goto, Y. Nakamura, K. Nishimura, N. Noda, M. Shoji, H. Suzuki, A. Takayama, A. Komori, N. Ohyanbu, O. Motojima, K. Morita, K. Ohya, J.P. Sharpe and LHD Experimental Group 313–316 (2003) 1
- PSI issues at plasma facing surfaces of blankets in fusion reactors, Y. Ueda, K. Tobita and Y. Katoh 313–316 (2003) 32
- Molecular dynamics simulations of CH₃ sticking on carbon first wall structures, P. Träskelin, E. Salonen, K. Nordlund, A.V. Krasheninnikov, J. Keinonen and C.H. Wu 313–316 (2003) 52
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56
- Performance and erosion of a tungsten brush limiter exposed at the TEXTOR tokamak, T. Hirai, V. Philipps, A. Huber, G. Sergienko, J. Linke, T. Wakui, T. Tanabe, M. Rubel, M. Wada, T. Ohgo, A. Pospieszczyk and K. Ohya 313–316 (2003) 67
- Blister formation on tungsten surface under low energy and high flux hydrogen plasma irradiation in NAGDIS-I, M.Y. Ye, H. Kanehara, S. Fukuta, N. Ohno and S. Takamura 313–316 (2003) 72
- Surface morphology and helium retention on tungsten exposed to low energy and high flux helium plasma, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, Y. Kubota, N.

- Yoshida, T. Sogabe, T. Kato and B. Schedler 313–316 (2003) 92
- Some peculiarities in the behavior of Be surfaces under bombardment by ions from a deuterium plasma, A.F. Bardamid, A.I. Belyayeva, V.N. Bondarenko, A.A. Galuza, V.V. Gann, L. Jacobson, V.G. Konovalov, D.V. Orlinskij, I.I. Papirov, I.V. Ryzhkov, A.N. Shapoval, A.F. Shtan, S.I. Solodovchenko, A.A. Vasilev and V.S. Voitsenya 313–316 (2003) 112
- Thermal effects of surface layers on divertor target plates, P. Andrew, J.P. Coad, T. Eich, E. Gauthier, A. Herrmann, G.F. Matthews, V. Riccardo, M. Stamp and Contributors to the EFDA-JET Work Programme 313–316 (2003) 135
- Chemical erosion of DIII-D divertor tile specimens, P.B. Wright, J.W. Davis, R.G. Macaulay-Newcombe, C.G. Hamilton and A.A. Haasz 313–316 (2003) 158
- Analysis for surface probes of third experimental campaign in the large helical device, T. Hino, Y. Nobuta, Y. Yamauchi, Y. Hirohata, A. Sagara, S. Masuzaki, N. Inoue, N. Noda, O. Motojima and LHD Experimental Group 313–316 (2003) 167
- Blister formation in tungsten by hydrogen and carbon mixed ion beam irradiation, T. Shimada, H. Kikuchi, Y. Ueda, A. Sagara and M. Nishikawa 313–316 (2003) 204
- Plasma deposition of boron films with high growth rate and efficiency using carborane, O.I. Buzhinskij, V.G. Otroshchenko, D.G. Whyte, M. Baldwin, R.W. Conn, R.P. Doerner, R. Seraydarian, S. Luckhardt, H. Kugel and W.P. West 313–316 (2003) 214
- Effects of wall boron coating on FTU plasma operations, M.L. Apicella, G. Mazzitelli, G. Apruzzese, G. Bracco, B. Esposito, L. Gabellieri, H. Kroegler, M. Leigheb, G. Maddaluno, M. Marinucci, M. Mattioli, V.P. Ridolfini, L. Pieroni, M. Romanelli and FTU team 313–316 (2003) 269
- Erosion of high-Z metals with typical impurity ions, K. Schmid and J. Roth 313–316 (2003) 302
- Beryllium and carbon films in JET following D-T operation, M. Rubel, J.P. Coad, N. Bekris, S.K. Erents, D. Hole, G.F. Matthews, R.-D. Penz-horn and Contributors to EFDA-JET work programme 313–316 (2003) 321
- Erosion and migration of tungsten employed at the main chamber first wall of ASDEX Upgrade, K. Krieger, A. Geier, X. Gong, H. Maier, R. Neu and V. Rohde 313–316 (2003) 327
- Erosion in the DIII-D divertor by neon-detached plasmas, W.R. Wampler, D.G. Whyte, C.P.C. Wong and W.P. West 313–316 (2003) 333
- Experimental modeling of transport and deposition of hydrocarbon radicals on ITER-FEAT cold trap, I.I. Arkhipov, V.L. Bukhovets, A.K. Buryak, G. Federici, A.E. Gorodetsky, C. Ibbott, D.A. Komarov, A.N. Makhankov, A. Markin, I.V. Mazul, R. Tivey, I.G. Varshavskay, S.P. Vnukov, A.P. Zakharov, A.V. Ulianov and R.Kh. Zalavutdinov 313–316 (2003) 342
- Chemical erosion by deuterium of atomically dispersed doped hydrocarbon layers, M. Balden, J. Roth, E.d.J. Pardo and A. Wiltner 313–316 (2003) 348
- Chemical erosion behaviour of carbon materials in fusion devices, V. Philippis, M. Stamp, A. Pospieszczyk, A. Huber, A. Kirschner and E. Vietzke 313–316 (2003) 354
- Chemical sputtering of carbon in Tore-Supra outboard pump limiter, A. Cambe, E. Gauthier, J. Hogan and J.M. Layet 313–316 (2003) 364
- Analyses of erosion and re-deposition layers on graphite tiles used in the W-shaped divertor region of JT-60U, Y. Gotoh, J. Yagyu, K. Masaki, K. Kizu, A. Kaminaga, K. Kodama, T. Arai, T. Tanabe and N. Miya 313–316 (2003) 370
- Erosion and deposition at the ALT-II limiter of TEXTOR, M. Mayer, P. Wienhold, D. Hildebrandt and W. Schneider 313–316 (2003) 377
- Behavior of high temperature liquid surfaces in contact with plasma, R.P. Doerner, M.J. Baldwin, S.I. Krasheninnikov and D.G. Whyte 313–316 (2003) 383
- Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388
- Numerical simulation of CFC and tungsten target erosion in ITER-FEAT divertor, V. Filatov 313–316 (2003) 393
- Blister formation and erosion due to blister fracture of SiC or Si, Y. Yamauchi, Y. Hirohata and T. Hino 313–316 (2003) 408
- Erosion of CFC under simultaneous bombardment by helium and deuterium ions, V. Bandourko, R. Jimbou, K. Nakamura, M. Akiba and Y. Okumura 313–316 (2003) 413
- Characterisation of deposited hydrocarbon layers below the divertor and in the pumping ducts of ASDEX Upgrade, M. Mayer, V. Rohde, A. von Keudell and ASDEX Upgrade Team 313–316 (2003) 429
- Long term behaviour of material erosion and deposition on the vessel wall and remote areas of TEXTOR, J. von

- Seggern, P. Wienhold, T. Hirai, V. Philipps and H.G. Esser 313–316 (2003) 439
- Modeling of global particle balance in steady-state magnetic fusion devices – Analysis of the recent data from the TRIAM-1M tokamak, Y. Hirooka, M. Sakamoto and The TRIAM group 313–316 (2003) 588
- Liquid lithium surface research and development, B.I. Khripunov, V.B. Petrov, V.V. Shapkin, A.S. Pleshakov, A.S. Rupyshev, N.V. Antonov, A.M. Litnovsky, D.Yu. Prokhorov, Yu.S. Shpansky and V.A. Evtikhin 313–316 (2003) 619
- Temperature dependence of liquid-lithium sputtering from oblique 700 eV He ions, J.P. Allain, M.D. Coventry and D.N. Ruzic 313–316 (2003) 641
- Energy deposition and thermal effects of runaway electrons in ITER-FEAT plasma facing components, G. Madaluno, G. Maruccia, M. Merola and S. Rollet 313–316 (2003) 651
- Comprehensive modeling of ELMs and their effect on plasma-facing surfaces during normal tokamak operation, A. Hassanein and I. Konakashbaev 313–316 (2003) 664
- Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk, S. Cernusca, HP. Winter and F. Aumayr 313–316 (2003) 670
- Influence of plasma pressure gradient on melt layer macroscopic erosion of metal targets in disruption simulation experiments, V.I. Tereshin, I.E. Garikushka, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.A. Makhlaj, D.G. Solyakov and H. Wuerz 313–316 (2003) 685
- Surface temperature measurements on Tokamak target plates with two types of infra red fibres, R. Reichle, C. Pochet, E. Delchambre, L. Ducobu, F. Faisse, D. Guilhem, M. Jouve, D. Moulin, H. Roche and E. Thomas 313–316 (2003) 711
- Carbon sources in the DIII-D tokamak, R.C. Isler, R.J. Colchin, N.H. Brooks, T.E. Evans, W.P. West and D.G. Whyte 313–316 (2003) 873
- Interpretive modeling of simple-as-possible-plasma discharges on DIII-D using the OEDGE code, P.C. Stangeby, J.D. Elder, J.A. Boedo, B. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, R.C. Isler, L.L. Lao, S. Lisgo, G.D. Porter, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 883
- terdaeme, F. Wesner, R. Wilhelm and ASDEX Upgrade Team 313–316 (2003) 956
- On the measurement of molecular particle fluxes in fusion boundary plasmas, S. Brezinsek, P.T. Greenland, Ph. Mertens, A. Pospieszczyk, D. Reiter, U. Samm, B. Schweer and G. Sergienko 313–316 (2003) 967
- A method of kinetic description of the near-wall plasma and non-local effects, A.F. Nastoyashchii and I.N. Morozov 313–316 (2003) 1094
- Flow measurements in the scrape-off layer of Alcator C-Mod using impurity plumes, S. Gangadhara and B. LaBombard 313–316 (2003) 1167
- Theory and Modelling**
- Key ITER plasma edge and plasma–material interaction issues, G. Federici, P. Andrew, P. Barabaschi, J. Brooks, R. Doerner, A. Geier, A. Herrmann, G. Janeschitz, K. Krieger, A. Kukushkin, A. Loarte, R. Neu, G. Saini, M. Shimada, G. Strohmayer and M. Sugihara 313–316 (2003) 11
- Hydrogen removal via ICRF technique on HT-7 – experiment and modeling on neutral energies, B. Xiao, J. Li and HT-7 team 313–316 (2003) 163
- Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388
- Numerical simulation of CFC and tungsten target erosion in ITER-FEAT divertor, V. Filatov 313–316 (2003) 393
- Molecular dynamics studies of the sputtering of divertor materials, E. Salonen, K. Nordlund, J. Keinonen and C.H. Wu 313–316 (2003) 404
- Modeling of hydrocarbon species in ECR methane plasmas, K. Matyash, R. Schneider, A. Bergmann, W. Jacob, U. Fantz and P. Pecher 313–316 (2003) 434
- Modelling of the transport of methane and higher hydrocarbons in fusion devices, A. Kirschner, J.N. Brooks, V. Philipps, P. Wienhold, A. Pospieszczyk, R.K. Janev and U. Samm 313–316 (2003) 444
- Supersonic gas injection on Tore Supra, B. Pégourié, E. Tsitrone, R. Dejarnac, J. Bucalossi, G. Martin, J. Gunn, D. Frigione, D. Reiter, P. Ghendrih and C. Clément 313–316 (2003) 539
- Hydrogen retention in graphite and carbon materials under a fusion reactor environment, H. Atsumi 313–316 (2003) 543
- Ergodic edge region of large helical device, T. Morisaki, K. Narihara, S. Masuzaki, S. Morita, M. Goto, A. Komori, N. Ohyabu, O. Motojima,

- K. Matsuoka and LHD Experimental Group 313–316 (2003) 548
- Fueling experiments using neutral beam injection in the GAMMA 10 tandem mirror, Y. Nakashima, T. Kato, Y. Ishimoto, K. Orito, T. Natori, T. Fukasawa, K. Watanabe, S. Kobayashi, M. Shoji, Y. Kubota, E. Kawamori, M. Yoshikawa, I. Katanuma, M. Ichimura, T. Cho and K. Yatsu 313–316 (2003) 553
- Modeling of localized neutral particle sources in 3D edge plasmas, M.V. Umansky, T.D. Rognlien, M.E. Fenstermacher, M. Borchardt, A. Mutzke, J. Riemann, R. Schneider and L.W. Owen 313–316 (2003) 559
- Role of neutrals in core fueling and pedestal structure in H-mode DIII-D discharges, N.S. Wolf, T.W. Petrie, G.D. Porter, T.D. Rognlien, R.J. Groebner and M.A. Mahdavi 313–316 (2003) 564
- Simulation of hydrogen and hydrocarbon release from W-Ta and W-C twin test limiters in TEXTOR edge plasmas, K. Ohya, T. Hirai, T. Tanabe, M. Wada, T. Ohgo, V. Philipps, A. Pospieszczyk, A. Huber, G. Sergienko, S. Brezinsek and N. Noda 313–316 (2003) 568
- Modeling of global particle balance in steady-state magnetic fusion devices – Analysis of the recent data from the TRIAM-1M tokamak, Y. Hirooka, M. Sakamoto and The TRIAM group 313–316 (2003) 588
- Energy deposition and thermal effects of runaway electrons in ITER-FEAT plasma facing components, G. Madadaluno, G. Maruccia, M. Merola and S. Rollet 313–316 (2003) 651
- Scaling of ITER divertor parameters – interpolation from 2D modelling and extrapolation, H.D. Pacher, A.S. Kukushkin, G.W. Pacher and G. Janeschitz 313–316 (2003) 657
- Comprehensive modeling of ELMs and their effect on plasma-facing surfaces during normal tokamak operation, A. Hassanein and I. Konkashbaev 313–316 (2003) 664
- Narrow power profiles seen at JET and their relation to ion orbit losses, W. Fundamenski, S. Sipilä, T. Eich, T. Kiviniemi, T. Kurki-Suonio, G. Matthews, V. Riccardo and Contributors to the EFDA-JET work programme 313–316 (2003) 787
- Theoretical understanding of turbulent transport in the SOL, Y. Sarazin, Ph. Ghendrih, G. Attuel, C. Clément, X. Garbet, V. Grandgirard, M. Ottaviani, S. Benkadda, P. Beyer, N. Bian and C. Figarella 313–316 (2003) 796
- Radiation transfer in dense edge plasmas and divertors: experimental and re-
- cent computational results, D. Reiter, S. Wiesen and M. Born 313–316 (2003) 845
- Modelling of island divertor physics and comparison to W7-AS experimental results, Y. Feng, F. Sardei, P. Grigull, K. McCormick, L. Giannone, J. Kisslinger, D. Reiter, Y. Igkitkhanov and U. Wenzel 313–316 (2003) 857
- An overview of JET edge modelling activities, D.P. Coster, X. Bonnin, G. Corrigan, R. Dejarnac, M. Fenstermacher, W. Fundamenski, A. Geier, J. Hogan, A. Kallenbach, A. Kirschner, K. Krieger, A. Loarte, G. Matthews, R.A. Pitts, G. Porter, R. Pugno, D. Reiser, D. Reiter, S. Sipila, J. Spence, P.C. Stangeby, E. Tsitrone, D. Tskhakaya, M. Wischmeier and Contributors to the EFDA-JET work programme 313–316 (2003) 868
- Interpretive modeling of simple-as-possible-plasma discharges on DIII-D using the OEDGE code, P.C. Stangeby, J.D. Elder, J.A. Boedo, B. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, R.C. Isler, L.L. Lao, S. Lisgo, G.D. Porter, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 313–316 (2003) 883
- Numerical simulation of plasma profile changes in TEXTOR by externally driven radial polarization currents, H. Gerhauser, R. Zagórski, S. Jachmich and M. VanSchoor 313–316 (2003) 893
- Effect of core-edge coupling on operation regimes of ITER-like reactor, R. Stankiewicz and R. Zagórski 313–316 (2003) 899
- Improved modelling of detachment and neutral-dominated regimes using the SOLPSB2-Eirene code, X. Bonnin, D. Coster, C.S. Pitcher, R. Schneider, D. Reiter, V. Rozhansky, S. Voskoboinikov and H. Bürbamer 313–316 (2003) 909
- Predicted effects of parallel temperature gradients on the overestimation of TCV divertor target Langmuir probe T_e measurements, J. Horacek, R.A. Pitts, P.C. Stangeby, O. Batishchev and A. Loarte 313–316 (2003) 931
- Divertor detachment during pure helium plasmas in JET, M. Wischmeier, D. Coster, X. Bonnin, T. Eich, A. Huber, C. Ingesson, S. Jachmich, A. Kukushkin, A. Loarte, G.F. Matthews, R.A. Pitts, J. Rapp, D. Reiter, E. Tsitrone and Contributors EFDA-JET Work Programme 313–316 (2003) 980
- $\mathbf{E} \times \mathbf{B}$ -drift, current, and kinetic effects on divertor plasma profiles during

- ELMs, T.D. Rognlien and M. Shimada 313–316 (2003) 1000
- Two-dimensional modelling for HT-7U tokamak divertor, Y. Chen 313–316 (2003) 1015
- Numerical predictions for the HT-7U divertor, S. Zhu and X. Zha 313–316 (2003) 1020
- Hierarchy tests of edge transport models (BoRiS, UEDGE), J. Riemann, M. Borchardt, R. Schneider, X. Bonnin, A. Mutzke, T. Rognlien and M. Umansky 313–316 (2003) 1030
- Asymmetry of dense divertor plasmas influenced by thermoelectric potential and charge-exchange momentum loss, N. Hayashi, T. Takizuka, M. Hosokawa and K. Shimizu 313–316 (2003) 1041
- Runaway effects at the plasma boundary in ISTTOK, V.V. Plyusnin, J.A.C. Cabral, H. Figueiredo and C.A.F. Varandas 313–316 (2003) 1052
- Modeling approach to a 3D simulation of transport in TEXTOR-DED laminar zone with a finite element method, M. Kobayashi, D. Reiser, G. Sewell, K.H. Finken and S.S. Abdullaev 313–316 (2003) 1056
- Neutral transport simulations of gas puff imaging experiments, D.P. Stotler, B. LaBombard, J.L. Terry and S.J. Zweber 313–316 (2003) 1066
- DIII-D edge plasma simulations with UEDGE code including non-diffusive anomalous cross-field transport, A.Yu. Pigarov, S.I. Krasheninnikov, W.P. West, T.D. Rognlien, J.A. Boedo, D.G. Whyte, C.J. Lasnier, T.W. Petrie, M.J. Schaffer and J.G. Watkins 313–316 (2003) 1076
- Simulation of the effect of plasma flows in DIII-D, JET, and JT-60U, G.D. Porter, T.D. Rognlien, M.E. Rensink, A. Loarte, N. Asakura, H. Takenaga, G. Matthews and Contributors to the EFDA-JET Work Programme 313–316 (2003) 1085
- EIRENE neutral code modeling of the C-mod divertor, S. Ligo, P.C. Stangeby, C.J. Boswell, J.D. Elder, B. LaBombard, B. Lipschultz, C.S. Pitcher, D. Reiter and J.L. Terry 313–316 (2003) 1089
- A method of kinetic description of the near-wall plasma and non-local effects, A.F. Nastoyashchii and I.N. Morozov 313–316 (2003) 1094
- Dusty sheaths in plasmas, O.Yu. Kravchenko, Yu.I. Chutov, W.J. Goedheer, R.D. Smirnov and S. Takamura 313–316 (2003) 1109
- Particle-in-cell simulations of the plasma-wall transition with a magnetic field almost parallel to the wall, D. Tskhakaya and S. Kuhn 313–316 (2003) 1119
- Transport analysis of tungsten impurity in ITER, Y. Murakami, T. Amano, K. Shimizu and M. Shimada 313–316 (2003) 1161
- Flow measurements in the scrape-off layer of Alcator C-Mod using impurity plumes, S. Gangadhara and B. LaBombard 313–316 (2003) 1167
- Multi-dimensional impurity transport code by Monte Carlo method including gyro-orbit effects, I. Hyodo, M. Hirano, K. Miyamoto, K. Hoshino and A. Hatayama 313–316 (2003) 1183
- The effect of magnetic field modification on heavy ion movement in advanced stellarators and helical devices, A. Shishkin, O. Shyshkin, H. Wobig, Y. Igitkhanov, O. Motojima, S. Morimoto, K. Yamazaki and S. Inagaki 313–316 (2003) 1192
- Comparison of carbon and main ion radiation profiles in matched helium and deuterium plasmas in JET, M.E. Fenstermacher, K.D. Lawson, G.D. Porter, S.K. Erents, C. Ingesson, G.F. Matthews, G.M. McCracken, V. Philippis, R.A. Pitts, M.F. Stamp and Contributors to the EFDA-JET Workprogramme 313–316 (2003) 1206
- Modeling of tungsten transport in the SOL for sources at the central column of ASDEX Upgrade using DIVIMP, A. Geier, K. Krieger, J.D. Elder, R. Pugno, V. Rohde and The ASDEX Upgrade Team 313–316 (2003) 1216
- Modeling of ELM events and their effect on impurity enrichment, J. Hogan, R. Colchin, D. Coster, L. Baylor, M. Fenstermacher, M. Groth and M. Wade 313–316 (2003) 1221
- Simulation of divertor detachment characteristics in JT-60 with superconducting coils, K. Shimizu, T. Takizuka, S. Sakurai, H. Tamai, H. Takenaga, H. Kubo and Y. Miura 313–316 (2003) 1277
- Modeling of coupled edge stochastic and core resonant magnetic field effects in diverted tokamaks, T.E. Evans and R.A. Moyer 313–316 (2003) 1282
- Influence of magnetic field configurations on divertor plasma parameters in the W7-AS stellarator, P. Grigull, K. McCormick, Y. Feng, A. Werner, R. Brakel, H. Ehmler, F. Gadelmeier, D. Hartmann, D. Hildebrandt, R. Jaenicke, J. Kisslinger, T. Klinger, R. König, D. Naujoks, H. Niedermeyer, N. Ramasubramanian, F. Sardei, F. Wagner, U. Wenzel and The W7-AS Team 313–316 (2003) 1287
- Transport in complex magnetic geometries: 3D modelling of ergodic edge plasmas in fusion experiments, A. Runov, S. Kasilov, D. Reiter, N.

- McTaggart, X. Bonnin and R. Schneider 313–316 (2003) 1292
- An experimental and theoretical study on the formation of electric field induced flow shear in the tokamak edge, M. Van Schoor, S. Jachmich and R.R. Weynants 313–316 (2003) 1326
- Two-dimensional particle simulation of the flow control in SOL and divertor plasmas, T. Takizuka, M. Hosokawa and K. Shimizu 313–316 (2003) 1331
- Potential formation and ion distribution function in expanding magnetic field to divertor region, Y. Tomita 313–316 (2003) 1335
- Thermal Reactor Materials**
- Power deposition measurements in deuterium and helium discharges in JET MKIIGB divertor by IR-thermography, T. Eich, A. Herrmann, P. Andrew, A. Loarte and Contributors to the EFDA-JET Program 313–316 (2003) 919
- Thermal Shock**
- Erosion and erosion products of tungsten and carbon-based materials irradiated by a high energy electron beam, X. Liu, N. Yoshida, N. Noda, F. Zhang, Z. Xu and Y. Liu 313–316 (2003) 399
- Thermodynamic Properties**
- Thermal effects of surface layers on divertor target plates, P. Andrew, J.P. Coad, T. Eich, E. Gauthier, A. Herrmann, G.F. Matthews, V. Riccardo, M. Stamp and Contributors to the EFDA-JET Work Programme 313–316 (2003) 135
- Damage process of resolidified part on CVD-W coated molybdenum under high heat load, S. Tamura, K. Tokunaga and N. Yoshida 313–316 (2003) 250
- Behavior of high temperature liquid surfaces in contact with plasma, R.P. Doerner, M.J. Baldwin, S.I. Krasheninnikov and D.G. Whyte 313–316 (2003) 383
- Erosion and erosion products of tungsten and carbon-based materials irradiated by a high energy electron beam, X. Liu, N. Yoshida, N. Noda, F. Zhang, Z. Xu and Y. Liu 313–316 (2003) 399
- Liquid lithium surface research and development, B.I. Khripunov, V.B. Petrov, V.V. Shapkin, A.S. Pleshakov, A.S. Rupyshev, N.V. Antonov, A.M. Litnovsky, D.Yu. Prokhorov, Yu.S. Shpansky and V.A. Evtikhin 313–316 (2003) 619
- Thermographic observation of the divertor target plates in the stellarators W7-AS and W7-X, D. Hildebrandt, F. Gadelmeier, P. Grigull, K.
- McCormick, D. Naujoks, D. Sünder and W7-AS Team 313–316 (2003) 738
- Thermophysical Properties**
- B₄C-limiter experiments at TEXTOR, A. Pospieszczyk, B. Schweer, V. Philipps, A. Huber, G. Sergienko, U. Samm, H. Reimer, M. Freisinger, M. Rubel, A. Herrmann, S. Köllerl, M. Laux, H. Renner and H. Bolt 313–316 (2003) 223
- Experimental evaluation of space charge limited emission current from tungsten surface in high density helium plasma, Y. Hagino, N. Ohno, S. Takamura and M.Y. Ye 313–316 (2003) 675
- Titanium, Titanium Alloys and Compounds**
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56
- Tritium and Tritides**
- Key ITER plasma edge and plasma–material interaction issues, G. Federici, P. Andrew, P. Barabaschi, J. Brooks, R. Doerner, A. Geier, A. Herrmann, G. Janeschitz, K. Krieger, A. Kukushkin, A. Loarte, R. Neu, G. Saini, M. Shimada, G. Strohmayer and M. Sugihara 313–316 (2003) 11
- Advances in the modeling of chemical erosion/redeposition of carbon divertors and application to the JET tritium codeposition problem, J.N. Brooks, A. Kirschner, D.G. Whyte, D.N. Ruzic and D.A. Alman 313–316 (2003) 424
- Tritium retention of plasma facing components in tokamaks, T. Tanabe, N. Bekris, P. Coad, C.H. Skinner, M. Glugla and N. Miya 313–316 (2003) 478
- Non-destructive tritium measurements of Mk IIA divertor tile by BIXS, M. Matsuyama, N. Bekris, M. Glugla, N. Noda, V. Philipps and K. Watanabe 313–316 (2003) 491
- Tritium removal from JET and TFTR tiles by a scanning laser, C.H. Skinner, N. Bekris, J.P. Coad, C.A. Gentile and M. Glugla 313–316 (2003) 496
- Tritium depth profiles in 2D and 4D CFC tiles from JET and TFTR, N. Bekris, C.H. Skinner, U. Berndt, C.A. Gentile, M. Glugla and B. Schweigl 313–316 (2003) 501
- Tritium distribution on the surface of plasma facing carbon tiles used in JET, K. Sugiyama, K. Miyasaka, T. Tanabe, M. Glugla, N. Bekris and P. Coad 313–316 (2003) 507
- Tritium distribution in JT-60U W-shaped divertor, K. Masaki, K. Sugiyama, T. Tanabe, Y. Gotoh, K. Miyasaka, K.

- Tobita, Y., Miyo, A., Kaminaga, K.
Kodama, T., Arai and N. Miya 313–316 (2003) 514
- Ablative removal of codeposits on JT-60 carbon tiles by an excimer laser, W.M. Shu, Y. Kawakubo, K. Masaki and M.F. Nishi 313–316 (2003) 584
- Tritium permeation study through tungsten and nickel using pure tritium ion beam, H. Nakamura, W. Shu, T. Hayashi and M. Nishi 313–316 (2003) 679
- Impact of armor materials on tritium breeding ratio in the fusion reactor blanket, S. Sato and T. Nishitani 313–316 (2003) 690
- Experiments on selective removal of helium by an application of radio frequency field, T. Shoji, Y. Sakawa, N. Tamura, S. Jachmich, G. Mank and K.H. Finken 313–316 (2003) 1262
- Tungsten, Tungsten Alloys and Compounds**
- IFE chamber walls: requirements, design options, and synergy with MFE plasma facing components, A.R. Raffray, D. Haynes and F. Najmabadi 313–316 (2003) 23
- Performance and erosion of a tungsten brush limiter exposed at the TEXTOR tokamak, T. Hirai, V. Philipps, A. Huber, G. Sergienko, J. Linke, T. Wakui, T. Tanabe, M. Rubel, M. Wada, T. Ohgo, A. Pospieszczyk and K. Ohya 313–316 (2003) 67
- Blister formation on tungsten surface under low energy and high flux hydrogen plasma irradiation in NAGDIS-I, M.Y. Ye, H. Kanehara, S. Fukuta, N. Ohno and S. Takamura 313–316 (2003) 72
- Molecular dynamics simulations of the effect of deuterium on tungsten erosion by oxygen, I.S. Landman and H. Wuerz 313–316 (2003) 77
- Surface morphology and helium retention on tungsten exposed to low energy and high flux helium plasma, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 313–316 (2003) 92
- Simulation study of material mixing process on tungsten surfaces at elevated temperatures due to boundary plasma exposure and its influence on plasma wall interactions, R. Kawakami and K. Ohya 313–316 (2003) 107
- New results from the tungsten programme at ASDEX Upgrade, R. Neu, R. Dux, A. Geier, H. Greuner, K. Krieger, H. Maier, R. Pugno, V. Rohde, S.W. Yoon and ASDEX Upgrade Team 313–316 (2003) 116
- Impurity effects and temperature dependence of D retention in single crystal tungsten, M. Poon, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 313–316 (2003) 199
- Blister formation in tungsten by hydrogen and carbon mixed ion beam irradiation, T. Shimada, H. Kikuchi, Y. Ueda, A. Sagara and M. Nishikawa 313–316 (2003) 204
- Evaluation of the integrity of divertor models of tungsten or SiC/SiC composites joined with copper, A. Kurumada, Y. Imamura, Y. Tomota, T. Oku, Y. Kubota and N. Noda 313–316 (2003) 245
- Damage process of resolidified part on CVD-W coated molybdenum under high heat load, S. Tamura, K. Tokunaga and N. Yoshida 313–316 (2003) 250
- Inhomogeneous heat loading to high-Z test limiters depending upon the limiter materials, M. Wada, T. Hirai, T. Ohgo, T. Tanabe, K. Ohya, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk and N. Noda 313–316 (2003) 292
- Erosion of high-Z metals with typical impurity ions, K. Schmid and J. Roth 313–316 (2003) 302
- Short and long range transport of materials eroded from wall components in fusion devices, P. Wienhold, V. Philipps, A. Kirschner, A. Huber, J. von Seggern, H.G. Esser, D. Hildebrandt, M. Mayer, M. Rubel and W. Schneider 313–316 (2003) 311
- Erosion and migration of tungsten employed at the main chamber first wall of ASDEX Upgrade, K. Krieger, A. Geier, X. Gong, H. Maier, R. Neu and V. Rohde 313–316 (2003) 327
- Material erosion at the vessel walls of future fusion devices, R. Behrisch, G. Federici, A. Kukushkin and D. Reiter 313–316 (2003) 388
- Erosion and erosion products of tungsten and carbon-based materials irradiated by a high energy electron beam, X. Liu, N. Yoshida, N. Noda, F. Zhang, Z. Xu and Y. Liu 313–316 (2003) 399
- Molecular dynamics studies of the sputtering of divertor materials, E. Salonen, K. Nordlund, J. Keinonen and C.H. Wu 313–316 (2003) 404
- Deuterium retention in tungsten in dependence of the surface conditions, O.V. Ogorodnikova, J. Roth and M. Mayer 313–316 (2003) 469
- Simulation of hydrogen and hydrocarbon release from W-Ta and W-C twin test limiters in TEXTOR edge plasmas, K. Ohya, T. Hirai, T. Tanabe, M. Wada, T. Ohgo, V. Philipps, A. Pospieszczyk, A. Huber, G. Sergienko, S. Brezinsek and N. Noda 313–316 (2003) 568
- Computer modeling of ion implanted deuterium release from tungsten, A.A.

- Pisarev, I.D. Voskresensky and S.I. Porfirev 313–316 (2003) 604
- Experimental evaluation of space charge limited emission current from tungsten surface in high density helium plasma, Y. Hagino, N. Ohno, S. Takamura and M.Y. Ye 313–316 (2003) 675
- Tritium permeation study through tungsten and nickel using pure tritium ion beam, H. Nakamura, W. Shu, T. Hayashi and M. Nishi 313–316 (2003) 679
- Influence of plasma pressure gradient on melt layer macroscopic erosion of metal targets in disruption simulation experiments, V.I. Tereshin, I.E. Garkusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.A. Makhlaj, D.G. Solyakov and H. Wuerz 313–316 (2003) 685
- Impact of armor materials on tritium breeding ratio in the fusion reactor blanket, S. Sato and T. Nishitani 313–316 (2003) 690
- Accumulation of impurities in advanced scenarios, R. Dux, C. Giroud, R. Neu, A.G. Peeters, J. Stober, K.-D. Zastrow, Contributors to the EFDA-JET Workprogramme and ASDEX Upgrade Team 313–316 (2003) 1150
- Effect upon the core plasma radiation due to high power laser injection onto C, W and Ta test-limiters in TEXTOR, T. Ohgo, M. Wada, K. Ohya, T. Hirai, W. Biel, T. Tanabe, K. Kondo, J. Rapp, V. Philipps, A. Huber, G. Sergienko, A. Pospieszczyk, G. Bertschinger and N. Noda 313–316 (2003) 1156
- Transport analysis of tungsten impurity in ITER, Y. Murakami, T. Amano, K. Shimizu and M. Shimada 313–316 (2003) 1161
- Multi-dimensional impurity transport code by Monte Carlo method including gyro-orbit effects, I. Hyodo, M. Hirano, K. Miyamoto, K. Hoshino and A. Hatayama 313–316 (2003) 1183
- The effect of magnetic field modification on heavy ion movement in advanced stellarators and helical devices, A. Shishkin, O. Shyshkin, H. Wobig, Y. Igitkhanov, O. Motojima, S. Morimoto, K. Yamazaki and S. Inagaki 313–316 (2003) 1192
- Modeling of tungsten transport in the SOL for sources at the central column of ASDEX Upgrade using DIVIMP, A. Geier, K. Krieger, J.D. Elder, R. Pugno, V. Rohde and The ASDEX Upgrade Team 313–316 (2003) 1216
- Vanadium, Vanadium Alloys and Compounds**
- Suppression of hydrogen absorption to V–4Cr–4Ti alloy by TiO₂/TiC coating, Y. Hirohata, D. Motojima, T. Hino and S. Sengoku 313–316 (2003) 172
- Influence of high-power plasma streams irradiation on surface erosion behavior of reversible hydrogen getters, V.N. Borisko, I.E. Garkusha, V.V. Chebotarev, M.V. Lototsky, J. Langner, M.J. Sadowski, V.I. Tereshin and Yu.F. Shmalko 313–316 (2003) 465
- X-ray Techniques and Applications**
- Deuterium bombardment of carbon and carbon layers on titanium, K.U. Klages, A. Wiltner, J. Luthin and Ch. Linsmeier 313–316 (2003) 56
- Material properties of co-deposition formed on plasma facing materials in all-metal machine TRIAM-1M, M. Miyamoto, K. Tokunaga, T. Fujiwara, N. Yoshida, TRIAM group, Y. Morimoto, T. Sugiyama and K. Okuno 313–316 (2003) 82
- Ablation rate estimation of inertial fusion reactor candidate material with intense ion beam and X-ray, K. Kasuya, A. Kasamatsu, Y. Kinoshita, T. Kamiya, A. Saiki, T.J. Renk and C.L. Olson 313–316 (2003) 235
- Non-destructive tritium measurements of Mk IIA divertor tile by BIXS, M. Matsuyama, N. Bekris, M. Glugla, N. Noda, V. Philipps and K. Watanabe 313–316 (2003) 491
- Zirconium Hydrides and Compounds**
- Influence of high-power plasma streams irradiation on surface erosion behavior of reversible hydrogen getters, V.N. Borisko, I.E. Garkusha, V.V. Chebotarev, M.V. Lototsky, J. Langner, M.J. Sadowski, V.I. Tereshin and Yu.F. Shmalko 313–316 (2003) 465