

Subject index

Adsorption

- Recoil energy distribution of hydrogen isotopes adsorbed on tungsten, R. Bastasz and J.A. Whaley 337–339 (2005) 544
- Study of plasma wall interactions in the long-pulse NB-heated discharges of JT-60U towards steady-state operation, H. Takenaga, N. Asakura, S. Higashijima, T. Nakano, H. Kubo, S. Konoshima, N. Oyama, A. Isayama, S. Ide, T. Fujita, Y. Miura and The JT-60 team 337–339 (2005) 802
- Density functional theory and molecular dynamic studies of hydrogen interaction with plasma-facing graphite surfaces and the impact of boron doping, Y. Ferro, A. Jelea, F. Marinelli, C. Brosset and A. Allouche 337–339 (2005) 897

Beryllium, Beryllium Alloys and Compounds

- Beryllium accumulation at the inner divertor of JET, J. Likonen, E. Vainonen-Ahlgren, J.P. Coad, R. Zilliaccus, T. Renvall, D.E. Hole, M. Rubel, K. Arstila, G.F. Matthews, M. Stamp and JET-EFDA Contributors 337–339 (2005) 60
- Composition and hydrogen isotope retention analysis of co-deposited C/Be layers, M.J. Baldwin, K. Schmid, R.P. Doerner, A. Wiltner, R. Seraydarian and Ch. Linsmeier 337–339 (2005) 590
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkhipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N. Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816

- Influence of beryllium plasma seeding on the erosion of carbon, K. Schmid, M. Baldwin and R. Doerner 337–339 (2005) 862
- High temperature erosion of beryllium, R.P. Doerner, M.J. Baldwin, S.I. Krasheninnikov and K. Schmid 337–339 (2005) 877
- Blister formation and deuterium retention on tungsten exposed to low energy and high flux deuterium plasma, K. Tokunaga, M.J. Baldwin, R.P. Doerner, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 337–339 (2005) 887
- Formation of a surface alloy in the beryllium–tungsten system, A. Wiltner and Ch. Linsmeier 337–339 (2005) 951
- A novel diagnostic for time-resolved spectroscopic argon and lithium density measurements, L. Schmitz, P. Calderoni, A. Ying and M.A. Abdou 337–339 (2005) 1096

Breeding Materials for Fusion

- Molecular dynamics simulation of Li surface erosion and bubble formation, Z. Insepov and A. Hassanein 337–339 (2005) 912

Carbon

- Experimental observations and modelling of carbon transport in the inner divertor of JET, A. Kirschner, V. Philipps, D.P. Coster, S.K. Erents, H.G. Esser, G. Federici, A.S. Kukushkin, A. Loarte, G.F. Matthews, J. Roth, U. Samm and JET EFDA Contributors 337–339 (2005) 17
- Methane screening in JET reverse field experiments, J.D. Strachan, B. Alper, G. Corrigan, S.K. Erents, C. Giroud, A. Korotkov, H. Leggate, G.F. Matthews, R.A. Pitts, J. Spence and M. Stamp 337–339 (2005) 25
- ¹³C transport studies in L-mode divertor plasmas on DIII-D, S.L. Allen, W.R. Wampler, A.G. McLean, D.G. Whyte, W.P. West, P.C. Stangeby, N.H. Brooks, D.L. Rudakov, V. Phillips, M. Rubel, G.F. Matthews, A. Nagy, R. Ellis and A.S. Bozek 337–339 (2005) 30

- Carbon dust formation from re-deposited layers in high-density hydrogen/helium plasmas in the NAGDIS-II device, N. Ohno, Y. Kobayashi, T. Sugimoto and S. Takamura 337–339 (2005) 35
- Modelling of deposition of hydrocarbon films underneath the divertor and in the pumping ducts of ITER, G. Federici, M. Mayer, G. Strohmayer, V. Chuyanov and C. Day 337–339 (2005) 40
- Simulation study on influence of chemically eroded higher hydrocarbons on SOL impurity transport and effect of dynamical material mixing on erosion/deposition of tungsten surfaces exposed to boundary plasmas, R. Kawakami and T. Mitani 337–339 (2005) 45
- Studies on ^{13}C deposition in ASDEX Upgrade, E. Vainonen-Ahlgren, J. Likonen, T. Renvall, V. Rohde, R. Neu, M. Mayer, R. Pugno, K. Krieger and ASDEX Upgrade Team 337–339 (2005) 55
- Beryllium accumulation at the inner divertor of JET, J. Likonen, E. Vainonen-Ahlgren, J.P. Coad, R. Zilliagus, T. Renvall, D.E. Hole, M. Rubel, K. Arstila, G.F. Matthews, M. Stamp and JET-EFDA Contributors 337–339 (2005) 60
- Experimental study of different carbon dust growth mechanisms, C. Arnas, C. Dominique, P. Roubin, C. Martin, C. Laffon, P. Parent, C. Brosset and B. Pégourié 337–339 (2005) 69
- Chemical erosion of DIII-D lower divertor tiles, G.M. Wright, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 337–339 (2005) 74
- OEDGE modeling of ^{13}C deposition in the inner divertor of DIII-D, J.D. Elder, P.C. Stangeby, D.G. Whyte, S.L. Allen, A. McLean, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, C.J. Lasnier, S. Lisgo, D.L. Rudakov, W.R. Wampler, J.G. Watkins and W.P. West 337–339 (2005) 79
- Effect of plasma configuration on carbon migration measured in the inner divertor of JET using quartz micro-balance, H.G. Esser, V. Philipps, M. Freisinger, G.F. Matthews, J.P. Coad, G.F. Neill and JET EFDA Contributors 337–339 (2005) 84
- Transport and deposition of injected hydrocarbons in plasma generator PSI-2, W. Bohmeyer, D. Naujoks, A. Markin, I. Arkhipov, B. Koch, D. Schröder and G. Fussmann 337–339 (2005) 89
- Motion and lifetime of dust grains in a tokamak plasma, J.D. Martin, M. Coppins and G.F. Counsell 337–339 (2005) 114
- Carbon erosion and deposition on the ASDEX Upgrade divertor tiles, M. Mayer, V. Rohde, J. Likonen, E. Vainonen-Ahlgren, K. Krieger, X. Gong, J. Chen and ASDEX Upgrade Team 337–339 (2005) 119
- DIVIMP modeling of the toroidally symmetrical injection of $^{13}\text{CH}_4$ into the upper SOL of DIII-D, A.G. McLean, J.D. Elder, P.C. Stangeby, S.L. Allen, J.A. Boedo, N.H. Brooks, M.E. Fenstermacher, M. Groth, S. Lisgo, A. Nagy, D.L. Rudakov, W.R. Wampler, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 124
- Measurements of carbon, deuterium and boron deposition in DIII-D, W.R. Wampler, S.L. Allen, A.G. McLean and W.P. West 337–339 (2005) 134
- Three-dimensional proton trajectory analyses and simulation of neutral particle transport in an ICRF heated long pulse discharge on the large helical device, M. Shoji, R. Kumazawa, K. Saito, T. Watanabe, Y. Nakamura, S. Masuzaki, S. Morita, M. Goto, N. Noda, N. Ohyabu and LHD Experimental Groups 337–339 (2005) 186
- Radiation belts in the Wendelstein-7AS stellarator, U. Wenzel, H. Thomsen, Y. Feng, P. Grigull and K. McCormick 337–339 (2005) 196
- Measured signatures of low energy, physical sputtering in the line shape of neutral carbon emission, N.H. Brooks, R.C. Isler, D.G. Whyte, M.E. Fenstermacher, R.J. Groebner, P.C. Stangeby, W.W. Heidbrink, G.L. Jackson, M.A. Mahdavi, W.P. West and The DIII-D Team 337–339 (2005) 227
- Preliminary study of the influence of DED on carbon radiation and transport in the TEXTOR tokamak, G. Telesca, K. Cromb , M. Tokar, B. Unterberg, G. Verdoolaege, R. Zagorski and G. Van Oost 337–339 (2005) 361
- Assessment of the poloidal distribution of core plasma fueling and impurity sources in DIII-D, M. Groth, L.W. Owen, G.D. Porter, N.H. Brooks, M.E. Fenstermacher, W.H. Meyer, A.W. Leonard, T.W. Petrie, D.L. Rudakov, G. Wang, J.G. Watkins and N.S. Wolf 337–339 (2005) 425
- Fuelling efficiency of hydrocarbons in TJ-II plasmas, I. Garc a-Cort s, F.L. Tabar s, D. Tafalla, A. Hidalgo, J.M. Carmona, K.J. McCarthy and F. Medina 337–339 (2005) 441
- On the lifetime of wall conditioning layers, H. Maier, K. Schmid and W. Eckstein 337–339 (2005) 480

- Analysis of the D α spectral line shape on the carbon limiter insertion experiments in Heliotron J, H. Kawazome, K. Takahashi, S. Tsuboi, H. Arimoto, T. Mizuuchi, N. Nishino, H. Okada, K. Nagasaki, S. Kobayashi, S. Yamamoto, Y. Suzuki, K. Ohashi, S. Nakazawa, M. Kaneko, H. Shidara, Y. Fukagawa, S. Nishio, M. Yamada, H. Yamazaki, K. Kondo and F. Sano 337–339 (2005) 490
- Molecular deuterium sources in the outer divertor of JET, A. Pospieszczyk, S. Brezinsek, G. Sergienko, P.T. Greenland, A. Huber, A. Meigs, Ph. Mertens, U. Samm, M. Stamp and S. Wiesen 337–339 (2005) 500
- Role of wall implantation of charge exchange neutrals in the deuterium retention for Tore Supra long discharges, E. Tsitrone, D. Reiter, T. Loarer, C. Brosset, J. Bucalossi, L. Begrambekov, C. Grisolia, A. Grosman, J. Gunn, J. Hogan, R. Mitteau, B. Pégourié, P. Ghendrih, R. Reichle and P. Roubin 337–339 (2005) 539
- Tritium recovery in ITER by radiative plasma terminations, D.G. Whyte and J.W. Davis 337–339 (2005) 560
- Laser desorption of deuterium retained in re-deposited carbon layers at TEXTOR and JET, B. Schweer, A. Huber, G. Sergienko, V. Philipps, F. Irrek, H.G. Esser, U. Samm, M. Kempenaars, M. Stamp, C. Gowers and D. Richards 337–339 (2005) 570
- Multi-scale modeling of hydrogen isotope transport in porous graphite, M. Warrier, R. Schneider, E. Salonen and K. Nordlund 337–339 (2005) 580
- Composition and hydrogen isotope retention analysis of co-deposited C/Be layers, M.J. Baldwin, K. Schmid, R.P. Doerner, A. Wiltner, R. Seraydarian and Ch. Linsmeier 337–339 (2005) 590
- Hydrogen retention of carbon dust produced in JT-60, H. Yoshida, Y. Yamauchi, Y. Hirohata, T. Arai, S. Suzuki, M. Akiba, N. Miya and T. Hino 337–339 (2005) 604
- Hydrogen retention in divertor tiles used in JT-60 for hydrogen discharge period, Y. Hirohata, T. Shibahara, T. Tanabe, T. Arai, Y. Gotoh, Y. Oya, H. Yoshida, Y. Morimoto, J. Yagyu, K. Masaki, K. Okuno, T. Hino and N. Miya 337–339 (2005) 609
- Thermal desorption behavior of deuterium implanted into polycrystalline diamond, H. Kimura, M. Sasaki, Y. Morimoto, T. Takeda, H. Kodama, A. Yoshikawa, M. Oyaidzu, K. Takahashi, K. Sakamoto, T. Imai and K. Okuno 337–339 (2005) 614
- Tritium particle balance and retention during DT discharges in JET, T. Loarer, J. Bucalossi, G. Matthew, V. Philipps and JET-EFDA Collaborators 337–339 (2005) 624
- Fuel removal from bumper limiter tiles by using a pulsed excimer laser, B. Emmoth, S. Khartsev, A. Pisarev, A. Grishin, U. Karlsson, A. Litnovsky, M. Rubel and P. Wienhold 337–339 (2005) 639
- Controlled irradiation of CFC samples in the scrape-off layer of Tore Supra, J.P. Gunn, L. Begrambekov, C. Brosset, A. Gordeev, T. Loarer, E. Miljavina, P. Shigin, H. Khodja, P. Odon, J.-Y. Pascal and S. Vartanian 337–339 (2005) 644
- Hydrogen release behavior from graphite under pulsed laser irradiation, T. Shibahara, Y. Sakawa and T. Tanabe 337–339 (2005) 654
- Characterisation of flakes generated in JET after DD and DT plasma operations, N. Bekris, J.P. Coad, R.-D. Penzhorn, S. Knipe, L. Doerr, R. Rolli and W. Nägele 337–339 (2005) 659
- Deuterium concentration in deposited carbon layers in Tore Supra, C. Brosset, H. Khodja and Tore Supra team 337–339 (2005) 664
- Effect of B-field dependent particle drifts on ELM behavior in the DIII-D boundary plasma, M.E. Fenstermacher, A.W. Leonard, G.D. Porter, J.A. Boedo, N.H. Brooks, D.S. Gray, M. Groth, E.M. Hollmann, C.J. Lasnier, T.W. Petrie and L. Zeng 337–339 (2005) 781
- Modelling of thermal shock experiments of carbon based materials in JUDITH, O.V. Ogorodnikova, S. Pestchanyi, Y. Koza and J. Linke 337–339 (2005) 791
- Study of plasma wall interactions in the long-pulse NB-heated discharges of JT-60U towards steady-state operation, H. Takenaga, N. Asakura, S. Higashijima, T. Nakano, H. Kubo, S. Konoshima, N. Oyama, A. Isayama, S. Ide, T. Fujita, Y. Miura and The JT-60 team 337–339 (2005) 802
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrone and J.C. Vallet 337–339 (2005) 821
- Redeposition of hydrocarbon layers in fusion devices, W. Jacob 337–339 (2005) 839

- Carbon erosion and a:C–H layer formation at ASDEX Upgrade, V. Rohde, M. Mayer, J. Likonen, R. Neu, T. Pütterich, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 847
- Low-energy tritium ion erosion of graphite, R.G. Macaulay-Newcombe, A.A. Haasz and J.W. Davis 337–339 (2005) 857
- Influence of beryllium plasma seeding on the erosion of carbon, K. Schmid, M. Baldwin and R. Doerner 337–339 (2005) 862
- Increased recombination of CH_3 radicals on stainless steel, A.E. Gorodetsky, R.Kh. Zalavutdinov, A.P. Zakharov, S.P. Vnukov, I.G. Varshavskaya, A.N. Makhankov, I.V. Mazul and G. Federici 337–339 (2005) 892
- Density functional theory and molecular dynamic studies of hydrogen interaction with plasma-facing graphite surfaces and the impact of boron doping, Y. Ferro, A. Jelea, F. Marinelli, C. Brosset and A. Allouche 337–339 (2005) 897
- Influence of microstructure of tungsten on solid state reaction rate with amorphous carbon film, Y. Hatano, M. Takamori, K. Nogita, K. Matsuda, S. Ikeno and K. Watanabe 337–339 (2005) 902
- Thermal properties of plasma exposed carbon and heat flux calculations on a spatial scale of a few microns, A. Herrmann 337–339 (2005) 907
- Measurements of chemical erosion of ATJ graphite by low energy D_2^+ impact, F.W. Meyer, H.F. Krause and L.I. Vergara 337–339 (2005) 922
- Study of optical properties of $\text{Mo}_x\text{C}_{1-x}$ films, G. De Temmerman, M. Ley, J. Boudaden and P. Oelhafen 337–339 (2005) 956
- Thermal behaviour of redeposited layer under high heat flux exposure, E. Gauthier, S. Dumas, J. Matheus, M. Missirlian, Y. Corre, L. Nicolas, P. Yala, P. Coad, P. Andrew, S. Cox and the JET-EFDA contributors 337–339 (2005) 960
- Deuterium-induced chemical erosion of carbon-metal layers, M. Balden, E. de Juan Pardo, I. Quintana, B. Ciecwiwa and J. Roth 337–339 (2005) 980
- Carbon chemical erosion in H-mode discharges in ASDEX Upgrade divertor IIb: flux dependence and local redeposition, R. Pugno, K. Krieger, A. Kirschner, A. Kallenbach, D.P. Coster, R. Dux, U. Fantz, J. Likonen, H.W. Müller, J. Neuhauser, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 985
- Raman spectroscopy and X-ray diffraction studies of some deposited carbon layers in Tore Supra, P. Roubin, C. Martin, C. Arnas, Ph. Colomban, B. Pégourié and C. Brosset 337–339 (2005) 990
- Possible effects of RF field near ICRF antenna on density control during long pulse discharge in LHD, K. Saito, R. Kumazawa, T. Mutoh, T. Seki, T. Watari, Y. Nakamura, M. Sakamoto, N. Noda, T. Watanabe, M. Shoji, S. Masuzaki, S. Morita, M. Goto, Y. Torii, N. Takeuchi, F. Shimpō, G. Nomura, M. Yokota, A. Kato, Y. Zhao and LHD Experimental Group 337–339 (2005) 995
- Characterization of dust collected from NSTX and JT-60U, J.P. Sharpe, P.W. Humrickhouse, C.H. Skinner, the NSTX Team, T. Tanabe, K. Masaki, N. Miya, the JT-60U Team and A. Sagara 337–339 (2005) 1000
- Investigations of chemical erosion of carbon materials in hydrogen and deuterium low pressure plasmas, P. Starke, U. Fantz and M. Balden 337–339 (2005) 1005
- Investigation of the high temperature erosion of nickel under 5keV neon irradiation, E. Vietzke and V. Philipps 337–339 (2005) 1024
- Divertor impurity sources; effects of hot surfaces and thin films on impurity production, M.F. Stamp, P. Andrew, S. Brezinsek, A. Huber and JET EFDA Contributors 337–339 (2005) 1038
- Identification of molecular carbon sources in the JET divertor by means of emission spectroscopy, S. Brezinsek, A. Pospieszczyk, M.F. Stamp, A. Meigs, A. Kirschner, A. Huber, Ph. Mertens and JET-EFDA contributors 337–339 (2005) 1058
- Surface temperature measurements of carbon materials in fusion devices, D. Hildebrandt, D. Naujoks and D. Sünder 337–339 (2005) 1064
- Hot spot effect on infrared spectral luminance emitted by carbon under plasma particles impact, E. Delchambre, R. Reichle, R. Mitteau, M. Missirlian and P. Roubin 337–339 (2005) 1069
- High-speed 2-D image measurement for plasma-wall interaction studies, N. Nishino, K. Takahashi, H. Kawazome, Y. Fukagawa, T. Mizuuchi, K. Kondo, F. Sano, K. Nagasaki, H. Okada, S. Kobayahi and S. Yamamoto 337–339 (2005) 1073
- Correlation of the intensity ratio of C_2/CH molecular bands with the flux ratio of $\text{C}_2\text{H}_j/\text{CH}_4$ particles, U. Fantz, S. Meir and ASDEX Upgrade Team 337–339 (2005) 1087
- Exposure of metal mirrors in the scrape-off layer of TEXTOR, P. Wienhold, A. Litnovsky, V. Philipps, B. Schweer, G. Sergienko, P. Oelhafen, M. Ley, G.

- De Temmerman, W. Schneider, D. Hildebrandt, M. Laux, M. Rubel and B. Emmoth 337–339 (2005) 1116
- Chemical Reactions** (*includes Electrochemical and Thermochemical Reactions*)
- Carbon dust formation from re-deposited layers in high-density hydrogen/helium plasmas in the NAGDIS-II device, N. Ohno, Y. Kobayashi, T. Sugimoto and S. Takamura 337–339 (2005) 35
- Simulation study on influence of chemically eroded higher hydrocarbons on SOL impurity transport and effect of dynamical material mixing on erosion/deposition of tungsten surfaces exposed to boundary plasmas, R. Kawakami and T. Mitani 337–339 (2005) 45
- Chemical erosion of DIII-D lower divertor tiles, G.M. Wright, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 337–339 (2005) 74
- Low-energy tritium ion erosion of graphite, R.G. Macaulay-Newcombe, A.A. Haasz and J.W. Davis 337–339 (2005) 857
- Influence of microstructure of tungsten on solid state reaction rate with amorphous carbon film, Y. Hatano, M. Takamori, K. Nogita, K. Matsuda, S. Ikeno and K. Watanabe 337–339 (2005) 902
- Measurements of chemical erosion of ATJ graphite by low D_2^+ impact, F.W. Meyer, H.F. Krause and L.I. Vergara 337–339 (2005) 922
- Flux dependence of carbon erosion and implication for ITER, J. Roth, A. Kirschner, W. Bohmeyer, S. Brezinsek, A. Cambe, E. Casarotto, R. Doerner, E. Gauthier, G. Federici, S. Higashijima, J. Hogan, A. Kallenbach, H. Kubo, J.M. Layet, T. Nakano, V. Philipps, A. Pospieszczyk, R. Preuss, R. Pugno, R. Ruggiéri, B. Schweer, G. Sergienko and M. Stamp 337–339 (2005) 970
- Carbon chemical erosion in H-mode discharges in ASDEX Upgrade divertor IIb: flux dependence and local re-deposition, R. Pugno, K. Krieger, A. Kirschner, A. Kallenbach, D.P. Coster, R. Dux, U. Fantz, J. Likonen, H.W. Müller, J. Neuhauser, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 985
- Correlation of the intensity ratio of C_2/CH molecular bands with the flux ratio of C_2H_2/CH_4 particles, U. Fantz, S. Meir and ASDEX Upgrade Team 337–339 (2005) 1087
- Cladding Materials**
- Experimental investigations of castellated monoblock structures in TEXTOR, A. Litnovsky, V. Philipps, P. Wienhold, G. Sergienko, B. Emmoth, M. Rubel, U. Breuer and E. Wessel 337–339 (2005) 917
- Coatings and Coated Particles**
- Development of the plasma operational regime in the large helical device by the various wall conditioning methods, K. Nishimura, N. Ashikawa, S. Masuzaki, J. Miyazawa, A. Sagara, M. Goto, B.J. Peterson, A. Komori, N. Noda, K. Ida, O. Kaneko, K. Kawahata, T. Kobuchi, S. Kubo, S. Morita, M. Osakabe, S. Sakakibara, R. Sakamoto, K. Sato, T. Shimozuma, Y. Takeiri, K. Tanaka, O. Motojima and LHD Experimental Group 337–339 (2005) 431
- Development of NSTX particle control techniques, H.W. Kugel, R. Maingi, M. Bell, D. Gates, K. Hill, B. LeBlanc, D. Mueller, R. Kaita, S. Paul, S. Sabbagh, C.H. Skinner, V. Soukhanovskii, B. Stratton and R. Raman 337–339 (2005) 495
- Crystallographic Properties**
- Raman spectroscopy and X-ray diffraction studies of some deposited carbon layers in Tore Supra, P. Roubin, C. Martin, C. Arnas, Ph. Colomban, B. Pégourié and C. Brosset 337–339 (2005) 990
- Defects and Defect Structures** (*excludes by Irradiation*)
- Impact of low energy helium irradiation on plasma facing metals, N. Yoshida, H. Iwakiri, K. Tokunaga and T. Baba 337–339 (2005) 946
- Deformation**
- Comparison of deuterium and hydrogen experiments in the Sustained Spheromak Physics Experiment, R.D. Wood, D.N. Hill, E.B. Hooper, H.S. McLean, D. Ryutov and S. Woodruff 337–339 (2005) 548
- Tritium particle balance and retention during DT discharges in JET, T. Loarer, J. Bucalossi, G. Matthew, V. Philipps and JET-EFDA Collaborators 337–339 (2005) 624
- Raman spectroscopy and X-ray diffraction studies of some deposited carbon layers in Tore Supra, P. Roubin, C. Martin, C. Arnas, Ph. Colomban, B. Pégourié and C. Brosset 337–339 (2005) 990
- Diffusion**
- Tungsten redistribution patterns in ASDEX Upgrade, K. Krieger, J. Likonen, M. Mayer, R. Pugno, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 10
- Simulation study on influence of chemically eroded higher hydrocarbons on

- SOL impurity transport and effect of dynamical material mixing on erosion/deposition of tungsten surfaces exposed to boundary plasmas, R. Kawakami and T. Mitani 337–339 (2005) 45
- Observations of macroscopic oscillations of the detachment front for injection of H₂, He, and Ne into the simulated baffled divertor, A. Matsubara, T. Watanabe, T. Sugimoto, S. Sudo and K. Sato 337–339 (2005) 181
- Edge fluctuation studies in Heliotron J, T. Mizuuchi, V.V. Chechkin, K. Ohashi, E.L. Sorokovoy, A.V. Chechkin, V.Yu. Gonchar, K. Takahashi, S. Kobayashi, K. Nagasaki, H. Okada, S. Yamamoto, F. Sano, K. Kondo, N. Nishino, H. Kawazome, H. Shidara, S. Kaneko, Y. Fukagawa, Y. Morita, S. Nakazawa, S. Nishio, S. Tsuboi and M. Yamada 337–339 (2005) 332
- Multi-scale modeling of hydrogen isotope transport in porous graphite, M. Warrier, R. Schneider, E. Salonen and K. Nordlund 337–339 (2005) 580
- Deuterium retention and release from molybdenum exposed to a Penning discharge, R.A. Causey, C.L. Kunz and D.F. Cowgill 337–339 (2005) 600
- Molecular dynamics simulation of Li surface erosion and bubble formation, Z. Insepov and A. Hassanein 337–339 (2005) 912
- Neutral helium line emission for edge plasma conditions, F.B. Rosmej, R. Stamm, S. Fritzsche, H. Capes, M. Koubiti, Y. Marandet, V.S. Lisitsa, N. Ohno, S. Takamura and D. Nishijima 337–339 (2005) 1101
- Divertor Materials**
- Carbon dust formation from re-deposited layers in high-density hydrogen/helium plasmas in the NAGDIS-II device, N. Ohno, Y. Kobayashi, T. Sugimoto and S. Takamura 337–339 (2005) 35
- Modelling of deposition of hydrocarbon films underneath the divertor and in the pumping ducts of ITER, G. Federici, M. Mayer, G. Strohmayer, V. Chuyanov and C. Day 337–339 (2005) 40
- Studies on ¹³C deposition in ASDEX Upgrade, E. Vainonen-Ahlgren, J. Likonen, T. Renvall, V. Rohde, R. Neu, M. Mayer, R. Pugno, K. Krieger and ASDEX Upgrade Team 337–339 (2005) 55
- Chemical erosion of DIII-D lower divertor tiles, G.M. Wright, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 337–339 (2005) 74
- OEDGE modeling of ¹³C deposition in the inner divertor of DIII-D, J.D. Elder, P.C. Stangeby, D.G. Whyte, S.L. Allen, A. McLean, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, C.J. Lasnier, S. Lisgo, D.L. Rudakov, W.R. Wampler, J.G. Watkins and W.P. West 337–339 (2005) 79
- Carbon erosion and deposition on the ASDEX Upgrade divertor tiles, M. Mayer, V. Rohde, J. Likonen, E. Vainonen-Ahlgren, K. Krieger, X. Gong, J. Chen and ASDEX Upgrade Team 337–339 (2005) 119
- Three-dimensional proton trajectory analyses and simulation of neutral particle transport in an ICRF heated long pulse discharge on the large helical device, M. Shoji, R. Kumazawa, K. Saito, T. Watanabe, Y. Nakamura, S. Masuzaki, S. Morita, M. Goto, N. Noda, N. Ohyabu and LHD Experimental Groups 337–339 (2005) 186
- Radiation belts in the Wendelstein-7AS stellarator, U. Wenzel, H. Thomsen, Y. Feng, P. Grigull and K. McCormick 337–339 (2005) 196
- Measured signatures of low energy, physical sputtering in the line shape of neutral carbon emission, N.H. Brooks, R.C. Isler, D.G. Whyte, M.E. Fenstermacher, R.J. Groebner, P.C. Stangeby, W.W. Heidbrink, G.L. Jackson, M.A. Mahdavi, W.P. West and The DIII-D Team 337–339 (2005) 227
- Accounting of the power balance for neutral-beam heated H-mode plasmas in NSTX, S.F. Paul, R. Maingi, V. Soukhanovskii, S.M. Kaye, H.W. Kugel and The NSTX Research Team 337–339 (2005) 251
- Effect of $B \times \nabla B$ direction on SOL energy transport in JET, W. Fundamenski, P. Andrew, K. Ereints, A. Huber, G. Kirnev, G. Matthews, R. Pitts, V. Riccardo, S. Sipilä and EFDA JET contributors 337–339 (2005) 305
- Tritium distribution in JET Mark IIA type divertor tiles analysed by BIXS, Y. Torikai, M. Matsuyama, N. Bekris, M. Glugla, P. Coad, W. Naegele, A. Erbe, N. Noda, V. Philipps and K. Watanabe 337–339 (2005) 575
- A new versatile facility: Vehicle-I for innovative PFC concepts evaluation and its first experiments on hydrogen recycling from solid and liquid lithium, Y. Hirooka, H. Ohgaki, Y. Ohtsuka and M. Nishikawa 337–339 (2005) 585
- Hydrogen retention of carbon dust produced in JT-60, H. Yoshida, Y. Yamauchi, Y. Hirohata, T. Arai, S. Suzuki, M. Akiba, N. Miya and T. Hino 337–339 (2005) 604

- Hydrogen retention in divertor tiles used in JT-60 for hydrogen discharge period, Y. Hirohata, T. Shibahara, T. Tanabe, T. Arai, Y. Gotoh, Y. Oya, H. Yoshida, Y. Morimoto, J. Yagyu, K. Masaki, K. Okuno, T. Hino and N. Miya 337–339 (2005) 609
- Power deposition onto plasma facing components in poloidal divertor tokamaks during type-I ELMs and disruptions, T. Eich, A. Herrmann, G. Pautasso, P. Andrew, N. Asakura, J.A. Boedo, Y. Corre, M.E. Fenstermacher, J.C. Fuchs, W. Fundamenski, G. Federici, E. Gauthier, B. Goncalves, O. Gruber, A. Kirk, A.W. Leonard, A. Loarte, G.F. Matthews, J. Neuhauser, R.A. Pitts, V. Riccardo and C. Silva 337–339 (2005) 669
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Energy flow during disruptions in JET, J.I. Paley, P. Andrew, S.C. Cowley, W. Fundamenski, A. Huber and JET EFDA Contributors 337–339 (2005) 702
- Tungsten erosion under plasma heat loads typical for ITER type I ELMs and disruptions, I.E. Garkusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.S. Landman, V.A. Makhilaj, A.K. Marchenko, D.G. Solyakov, V.I. Tereshin, S.A. Trubchaninov and A.V. Tsarenko 337–339 (2005) 707
- Radiation distribution and energy balance during type-I ELMs in ASDEX Upgrade, J.C. Fuchs, T. Eich, A. Herrmann, K.F. Mast and The ASDEX Upgrade Team 337–339 (2005) 756
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N. Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816
- Studies of a-C: D film inhibition by nitrogen injection in laboratory plasmas and divertors, F.L. Tabarés, D. Tafalla, V. Rohde, M. Stamp, G. Matthews, G. Esser, V. Philipps, R. Doerner and M. Baldwin 337–339 (2005) 867
- Influence of microstructure of tungsten on solid state reaction rate with amorphous carbon film, Y. Hatano, M. Takamori, K. Nogita, K. Matsuda, S. Ikeno and K. Watanabe 337–339 (2005) 902
- Experimental investigations of castellated monoblock structures in TEXTOR, A. Litnovsky, V. Philipps, P. Wienhold, G. Sergienko, B. Emmoth, M. Rubel, U. Breuer and E. Wessel 337–339 (2005) 917
- Measurements of chemical erosion of ATJ graphite by low energy D_2^+ impact, F.W. Meyer, H.F. Krause and L.I. Vergara 337–339 (2005) 922
- Characteristic changes of deuterium retention on tungsten surfaces due to low-energy helium plasma pre-exposure, D. Nishijima, T. Sugimoto, H. Iwakiri, M.Y. Ye, N. Ohno, N. Yoshida and S. Takamura 337–339 (2005) 927
- Microscopic and macroscopic damage in metals exposed to LHD divertor plasmas, M. Tokitani, M. Miyamoto, D. Koga, K. Tokunaga, T. Fujiwara, N. Yoshida, S. Masuzaki, N. Ashikawa, T. Morisaki, M. Shoji, A. Komori and LHD Experimental Group 337–339 (2005) 937
- Angular resolved energy distributions of low energy light ions reflected from a polycrystalline Mo surface, H. Yamaoka, Y. Matsumoto, M. Nishiura, K. Nishimura, M. Sasao and M. Wada 337–339 (2005) 942
- Impact of low energy helium irradiation on plasma facing metals, N. Yoshida, H. Iwakiri, K. Tokunaga and T. Baba 337–339 (2005) 946
- Thermal behaviour of redeposited layer under high heat flux exposure, E. Gauthier, S. Dumas, J. Matheus, M. Missirlian, Y. Corre, L. Nicolas, P. Yala, P. Coad, P. Andrew, S. Cox and the JET-EFDA contributors 337–339 (2005) 960
- Investigations of chemical erosion of carbon materials in hydrogen and deuterium low pressure plasmas, P. Starke, U. Fantz and M. Balden 337–339 (2005) 1005
- Incident-mass dependence of temperature-enhanced ion-induced sputtering in liquid metals, M.D. Coventry and D.N. Ruzic 337–339 (2005) 1015
- Measurement of hydrogen absorption in flowing liquid lithium in the flowing lithium retention experiment (FLIRE), R. Stubbers, W. Olczak, M. Nieto and D.N. Ruzic 337–339 (2005) 1033
- Damage process of high purity tungsten coatings by hydrogen beam heat loads, S. Tamura, K. Tokunaga, N. Yoshida, M. Taniguchi, K. Ezato, K. Sato, S. Suzuki, M. Akiba, Y. Tsunekawa and M. Okumiya 337–339 (2005) 1043
- Modeling and analysis of mixed-material surface evolution and sputtering, A.M. Yacout and A. Hassanein 337–339 (2005) 1048

- Correlation of the intensity ratio of C₂/CH molecular bands with the flux ratio of C₂H₂/CH₄ particles, U. Fantz, S. Meir and ASDEX Upgrade Team 337–339 (2005) 1087
- A novel diagnostic for time-resolved spectroscopic argon and lithium density measurements, L. Schmitz, P. Calderoni, A. Ying and M.A. Abdou 337–339 (2005) 1096
- Electron Microscopy**
- Microscopic and macroscopic damage in metals exposed to LHD divertor plasmas, M. Tokitani, M. Miyamoto, D. Koga, K. Tokunaga, T. Fujiwara, N. Yoshida, S. Masuzaki, N. Ashikawa, T. Morisaki, M. Shoji, A. Komori and LHD Experimental Group 337–339 (2005) 937
- Embrittlement**
- Tungsten limiter tests in ASDEX Upgrade, M.Y. Ye, H. Maier, A. Herrmann, V. Rohde, H. Bolt, R. Neu, J. Neuhauser and ASDEX Upgrade Team 337–339 (2005) 104
- Characterisation of flakes generated in JET after DD and DT plasma operations, N. Bekris, J.P. Coad, R.-D. Penzhorn, S. Knipe, L. Doerr, R. Rolli and W. Nägele 337–339 (2005) 659
- An extended formula for the energy spectrum of sputtered atoms from a material irradiated by light ions, T. Ono, Y. Aoki, T. Kawamura, T. Kenmotsu and Y. Yamamura 337–339 (2005) 975
- Carbon chemical erosion in H-mode discharges in ASDEX Upgrade divertor IIb: flux dependence and local redeposition, R. Pugno, K. Krieger, A. Kirschner, A. Kallenbach, D.P. Coster, R. Dux, U. Fantz, J. Likonen, H.W. Müller, J. Neuhauser, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 985
- Experimental Techniques**
- Experimental investigations with respect to the applicability of the Bohm criterion, T. Lunt, N. Ezumi, W. Bohmeyer and G. Fussmann 337–339 (2005) 201
- Variation in particle pumping due to changes in topology in high performance DIII-D plasmas, T.W. Petrie, N.H. Brooks, M.E. Fenstermacher, C.M. Greenfield, M. Groth, A.W. Hyatt, A.W. Leonard, M.A. Mahdavi, G.D. Porter, M.E. Rensink, M.J. Schaffer, M.R. Wade, J.G. Watkins, N.S. Wolf and The DIII-D Team 337–339 (2005) 216
- Plasma profiles and flows in the high-field side scrape-off layer in Alcator C-Mod, N. Smick, B. LaBombard and C.S. Pitcher 337–339 (2005) 281
- On the energy transfer between flows and turbulence in the plasma boundary of fusion devices, E. Sánchez, C. Hidalgo, B. Gonçalves, C. Silva, M.A. Pedrosa, M. Hron, K. Erents and JET EFDA contributors 337–339 (2005) 296
- Statistical description of the radial structure of turbulence in the JET plasma boundary region, B. Gonçalves, C. Hidalgo, C. Silva, M.A. Pedrosa and K. Erents 337–339 (2005) 376
- Assessment of the poloidal distribution of core plasma fueling and impurity sources in DIII-D, M. Groth, L.W. Owen, G.D. Porter, N.H. Brooks, M.E. Fenstermacher, W.H. Meyer, A.W. Leonard, T.W. Petrie, D.L. Rudakov, G. Wang, J.G. Watkins and N.S. Wolf 337–339 (2005) 425
- Development of the plasma operational regime in the large helical device by the various wall conditioning methods, K. Nishimura, N. Ashikawa, S. Masuzaki, J. Miyazawa, A. Sagara, M. Goto, B.J. Peterson, A. Komori, N. Noda, K. Ida, O. Kaneko, K. Kawahata, T. Kobuchi, S. Kubo, S. Morita, M. Osakabe, S. Sakakibara, R. Sakamoto, K. Sato, T. Shimozuma, Y. Takeiri, K. Tanaka, O. Motojima and LHD Experimental Group 337–339 (2005) 431
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- SOL and pedestal density profile evolution during DIII-D ELMy and ELM-suppressed H-mode operation, L. Zeng, G. Wang, E.J. Doyle, T.L. Rhodes, W.A. Peebles, M.E. Fenstermacher, T.E. Evans and R.A. Moyer 337–339 (2005) 742
- Effect of B-field dependent particle drifts on ELM behavior in the DIII-D boundary plasma, M.E. Fenstermacher, A.W. Leonard, G.D. Porter, J.A. Boedo, N.H. Brooks, D.S. Gray, M. Groth, E.M. Hollmann, C.J. Lasnier, T.W. Petrie and L. Zeng 337–339 (2005) 781
- Thermographic power accounting in MAST, F. Lott, A. Kirk, G.F. Counsell, J. Dowling, D. Taylor, T. Eich and A. Herrmann 337–339 (2005) 786
- Modelling of thermal shock experiments of carbon based materials in JU-DITH, O.V. Ogorodnikova, S. Pestchanyi, Y. Koza and J. Linke 337–339 (2005) 791

- Ion sensitive probe measurement in the linear plasma device PSI-2, N. Ezumi, Zh. Kiss'ovski, W. Bohmeyer and G. Fussmann 337–339 (2005) 1106
- First Wall Materials**
- Material migration in divertor tokamaks, G.F. Matthews 337–339 (2005) 1
- ^{13}C transport studies in L-mode divertor plasmas on DIII-D, S.L. Allen, W.R. Wampler, A.G. McLean, D.G. Whyte, W.P. West, P.C. Stangeby, N.H. Brooks, D.L. Rudakov, V. Phillips, M. Rubel, G.F. Matthews, A. Nagy, R. Ellis and A.S. Bozek 337–339 (2005) 30
- Effect of plasma configuration on carbon migration measured in the inner divertor of JET using quartz microbalance, H.G. Esser, V. Philipps, M. Freisinger, G.F. Matthews, J.P. Coad, G.F. Neill and JET EFDA Contributors 337–339 (2005) 84
- Transport and deposition of injected hydrocarbons in plasma generator PSI-2, W. Bohmeyer, D. Naujoks, A. Markin, I. Arkhipov, B. Koch, D. Schröder and G. Fussmann 337–339 (2005) 89
- Measurements of carbon, deuterium and boron deposition in DIII-D, W.R. Wampler, S.L. Allen, A.G. McLean and W.P. West 337–339 (2005) 134
- Effect of $B \times \nabla B$ direction on SOL energy transport in JET, W. Fundamenski, P. Andrew, K. Erents, A. Huber, G. Kirnev, G. Matthews, R. Pitts, V. Riccardo, S. Sipilä and EFDA JET contributors 337–339 (2005) 305
- Modelling of heat deposition onto the Tore Supra toroidal pumped limiter, X. Bonnin, Ph. Ghendrih, E. Tsitrone and R. Mitteau 337–339 (2005) 395
- Observations of fast ion loss to the plasma facing wall during quiescent H-modes on DIII-D, W.P. West, C.J. Lasnier, J.G. Watkins, J.S. deGrassie, W. Heidbrink, K.H. Burrell and F.E. Cecil 337–339 (2005) 420
- The effect of co-deposition of hydrogen and metals on wall pumping in long duration plasma in TRIAM-1M, M. Miyamoto, M. Tokitani, K. Tokunaga, T. Fujiwara, N. Yoshida, M. Sakamoto, H. Zushi, S. Nagata, K. Ono and TRIAM group 337–339 (2005) 436
- Molecular deuterium sources in the outer divertor of JET, A. Pospieszczyk, S. Brezinsek, G. Sergienko, P.T. Greenland, A. Huber, A. Meigs, Ph. Mertens, U. Samm, M. Stamp and S. Wiesen 337–339 (2005) 500
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- Tritium recovery in ITER by radiative plasma terminations, D.G. Whyte and J.W. Davis 337–339 (2005) 560
- Dynamic hydrogen isotope behavior and its chemical states in SiC by XPS and TDS technique, Y. Oya, Y. Onishi, H. Kodama, K. Okuno and S. Tanaka 337–339 (2005) 595
- Hydrogen retention in divertor tiles used in JT-60 for hydrogen discharge period, Y. Hirohata, T. Shibahara, T. Tanabe, T. Arai, Y. Gotoh, Y. Oya, H. Yoshida, Y. Morimoto, J. Yagyu, K. Masaki, K. Okuno, T. Hino and N. Miya 337–339 (2005) 609
- Helium irradiation effects on retention behavior of deuterium implanted into boron coating film by PCVD, H. Kodama, M. Oyaidzu, A. Yoshikawa, H. Kimura, Y. Oya, M. Matsuyama, A. Sagara, N. Noda and K. Okuno 337–339 (2005) 649
- Characterisation of flakes generated in JET after DD and DT plasma operations, N. Bekris, J.P. Coad, R.-D. Penzhorn, S. Knipe, L. Doerr, R. Rolli and W. Nägele 337–339 (2005) 659
- Power deposition onto plasma facing components in poloidal divertor tokamaks during type-I ELMs and disruptions, T. Eich, A. Herrmann, G. Pautasso, P. Andrew, N. Asakura, J.A. Boedo, Y. Corre, M.E. Fenstermacher, J.C. Fuchs, W. Fundamenski, G. Federici, E. Gauthier, B. Goncalves, O. Gruber, A. Kirk, A.W. Leonard, A. Loarte, G.F. Matthews, J. Neuhauser, R.A. Pitts, V. Riccardo and C. Silva 337–339 (2005) 669
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkhipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Interaction of ELMs and fast particles with in-vessel components in ASDEX Upgrade, A. Herrmann, J. Neuhauser, V. Rohde, R. Dux, T. Eich, C.J. Fuchs, M.Y. Ye and ASDEX Upgrade team 337–339 (2005) 697
- Energy flow during disruptions in JET, J.I. Paley, P. Andrew, S.C. Cowley, W. Fundamenski, A. Huber and JET EFDA Contributors 337–339 (2005) 702
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N.

- Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- Overview of goals and performance of ITER and strategy for plasma–wall interaction investigation, M. Shimada, A.E. Costley, G. Federici, K. Ioki, A.S. Kukushkin, V. Mukhovatov, A. Polevoi and M. Sugihara 337–339 (2005) 808
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816
- Carbon erosion and a:C–H layer formation at ASDEX Upgrade, V. Rohde, M. Mayer, J. Likonon, R. Neu, T. Pütterich, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 847
- Plasma surface interaction with tungsten in ASDEX Upgrade, R. Dux, A. Herrmann, A. Kallenbach, R. Neu, J. Neuhauser, H. Maier, R. Pugno, T. Pütterich, V. Rohde and ASDEX Upgrade Team 337–339 (2005) 852
- Effects of large area liquid lithium limiters on spherical torus plasmas, R. Kaita, R. Majeski, M. Boaz, P. Efthimion, G. Gettelfinger, T. Gray, D. Hoffman, S. Jardin, H. Kugel, P. Marfuta, T. Munsat, C. Neumeyer, S. Raftopoulos, V. Soukhanovskii, J. Spaleta, G. Taylor, J. Timberlake, R. Woolley, L. Zakharov, M. Finkenthal, D. Stutman, L. Delgado-Aparicio, R.P. Seraydarian, G. Antar, R. Doerner, S. Luckhardt, M. Baldwin, R.W. Conn, R. Maingi, M. Menon, R. Causey, D. Buchenauer, M. Ulrickson, B. Jones and D. Rodgers 337–339 (2005) 872
- An extended formula for the energy spectrum of sputtered atoms from a material irradiated by light ions, T. Ono, Y. Aoki, T. Kawamura, T. Kenmotsu and Y. Yamamura 337–339 (2005) 975
- Hydrogen blister formation and cracking behavior for various tungsten materials, Y. Ueda, T. Funabiki, T. Shimada, K. Fukumoto, H. Kurishita and M. Nishikawa 337–339 (2005) 1010
- A novel diagnostic for time-resolved spectroscopic argon and lithium density measurements, L. Schmitz, P. Calderoni, A. Ying and M.A. Abdou 337–339 (2005) 1096
- Fuels and Fuel Elements**
- Spectroscopic study of hydrogen particle behavior in attached and detached divertor plasmas of JT-60U, H. Kubo, H. Takenaga, K. Sawada, T. Nakano, S. Kobayashi, S. Higashijima, N. Asakura and K. Shimizu 337–339 (2005) 161
- Experimental investigations of castellated monoblock structures in TEXTOR, A. Litnovsky, V. Philipps, P. Wienhold, G. Sergienko, B. Emmoth, M. Rubel, U. Breuer and E. Wessel 337–339 (2005) 917
- Fusion Reactor Materials**
- DIVIMP modeling of the toroidally symmetrical injection of $^{13}\text{CH}_4$ into the upper SOL of DIII-D, A.G. McLean, J.D. Elder, P.C. Stangeby, S.L. Allen, J.A. Boedo, N.H. Brooks, M.E. Fenstermacher, M. Groth, S. Lisgo, A. Nagy, D.L. Rudakov, W.R. Wampler, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 124
- Influence of core–edge coupling and impurities on the operation regimes of a fusion reactor, R. Stankiewicz and R. Zagórski 337–339 (2005) 191
- Effect of $B \times \nabla B$ direction on SOL energy transport in JET, W. Fundamenski, P. Andrew, K. Erents, A. Huber, G. Kirnev, G. Matthews, R. Pitts, V. Riccardo, S. Sipilä and EFDA JET contributors 337–339 (2005) 305
- Fuelling efficiency of hydrocarbons in TJ-II plasmas, I. García-Cortés, F.L. Tabarés, D. Tafalla, A. Hidalgo, J.M. Carmona, K.J. McCarthy and F. Medina 337–339 (2005) 441
- Tritium recovery in ITER by radiative plasma terminations, D.G. Whyte and J.W. Davis 337–339 (2005) 560
- A new versatile facility: Vehicle-I for innovative PFC concepts evaluation and its first experiments on hydrogen recycling from solid and liquid lithium, Y. Hirooka, H. Ohgaki, Y. Ohtsuka and M. Nishikawa 337–339 (2005) 585
- Tritium distribution on plasma-facing tiles from ASDEX Upgrade, K. Sugiyama, T. Tanabe, K. Krieger, R. Neu and N. Bekris 337–339 (2005) 634
- Hydrogen release behavior from graphite under pulsed laser irradiation, T. Shibahara, Y. Sakawa and T. Tanabe 337–339 (2005) 654
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrone and J.C. Vallet 337–339 (2005) 821
- Effects of large area liquid lithium limiters on spherical torus plasmas, R. Kaita, R. Majeski, M. Boaz, P. Efthimion, G. Gettelfinger, T. Gray, D. Hoffman,

- S. Jardin, H. Kugel, P. Marfuta, T. Munsat, C. Neumeyer, S. Raftopoulos, V. Soukhanovskii, J. Spaleta, G. Taylor, J. Timberlake, R. Woolley, L. Zakharov, M. Finkenthal, D. Stutman, L. Delgado-Aparicio, R.P. Seraydarian, G. Antar, R. Doerner, S. Luckhardt, M. Baldwin, R.W. Conn, R. Maingi, M. Menon, R. Causey, D. Buchenauer, M. Ulrickson, B. Jones and D. Rodgers 337–339 (2005) 872
- Thermal properties of plasma exposed carbon and heat flux calculations on a spatial scale of a few microns, A. Herrmann 337–339 (2005) 907
- Microscopic and macroscopic damage in metals exposed to LHD divertor plasmas, M. Tokitani, M. Miyamoto, D. Koga, K. Tokunaga, T. Fujiwara, N. Yoshida, S. Masuzaki, N. Ashikawa, T. Morisaki, M. Shoji, A. Komori and LHD Experimental Group 337–339 (2005) 937
- Characterization of dust collected from NSTX and JT-60U, J.P. Sharpe, P.W. Humrickhouse, C.H. Skinner, the NSTX Team, T. Tanabe, K. Masaki, N. Miya, the JT-60U Team and A. Sagara 337–339 (2005) 1000
- Measurement of hydrogen absorption in flowing liquid lithium in the flowing lithium retention experiment (FLIRE), R. Stubbbers, W. Olczak, M. Nieto and D.N. Ruzic 337–339 (2005) 1033
- PSI modeling of liquid lithium divertors for the NSTX tokamak, J.N. Brooks, J.P. Allain, T.D. Rognlien and R. Maingi 337–339 (2005) 1053
- Hot spot effect on infrared spectral luminance emitted by carbon under plasma particles impact, E. Delchambre, R. Reichle, R. Mitteau, M. Misirlian and P. Roubin 337–339 (2005) 1069
- Gases in Materials** (*excludes Hydrogen, Helium and Tritium*)
- Development of ICRF wall conditioning technique on divertor-type tokamaks ASDEX Upgrade and JET, A. Lyssoivan, D.A. Hartmann, J.-M. Noterdaeme, R. Koch, V. Bobkov, T. Blackman, F. Braun, M. Cox, P. de Vries, H.G. Esser, H.-U. Fahrbach, J. Gafert, E. Gauthier, O. Gehre, M. Graham, G. Haas, A. Huber, K. Lawson, P.J. Lomas, M. Mantsinen, G. Matthews, M.-L. Mayoral, A. Meigs, Ph. Mertens, V. Mertens, I. Monakhov, J. Neuhauser, V. Philipps, V. Rohde, M. Santala, W. Suttrop, A. Walden, D.V. Eester, F. Wesner and ASDEX Upgrade Team and JET EFDA Contributors 337–339 (2005) 456
- Pellet fuelling in Tore Supra long discharges, A. Géraud, J. Bucalossi, T. Loarer, B. Pégourié, C. Grisolia, G. Gros and J. Gunn 337–339 (2005) 485
- Particle control issues of a compact stellarator with external vacuum vessel, P. Mioduszewski and the QPS Group 337–339 (2005) 525
- Fueling of QH-mode plasmas on DIII-D with pellets and gas, L.R. Baylor, T.C. Jernigan, K.H. Burrell, S.K. Combs, E.J. Doyle, P. Gohil, C.M. Greenfield, C.J. Lasnier and W.P. West 337–339 (2005) 535
- Characteristic changes of deuterium retention on tungsten surfaces due to low-energy helium plasma pre-exposure, D. Nishijima, T. Sugimoto, H. Iwakiri, M.Y. Ye, N. Ohno, N. Yoshida and S. Takamura 337–339 (2005) 927
- Grain Boundaries**
- Modelling of thermal shock experiments of carbon based materials in JU-DITH, O.V. Ogorodnikova, S. Pestchanyi, Y. Koza and J. Linke 337–339 (2005) 791
- Long-pulse discharges by synergy of LHW and IBW heating in the HT-7 tokamak, X. Gao, J. Li, Y. Yang, J.K. Xie, J.R. Luo, J.Y. Zhao, X.Z. Gong, L.Q. Hu, X.D. Zhang, Y.J. Shi, B.N. Wan, K. Tanaka, R. Sakamoto, Y.P. Zhao, G.L. Kuang, J.S. Hu, M. Asif, Y.X. Jie, H.Q. Liu, J. Liu, Q. Xu, L. Gao and The HT-7 Team 337–339 (2005) 835
- Heat Treatment**
- Detached plasma control by negative ion in divertor simulator, M. Ono, A. Tonegawa, K. Kumita, T. Shibuya and K. Kawamura 337–339 (2005) 261
- Possible effects of RF field near ICRF antenna on density control during long pulse discharge in LHD, K. Saito, R. Kumazawa, T. Mutoh, T. Seki, T. Watari, Y. Nakamura, M. Sakamoto, N. Noda, T. Watanabe, M. Shoji, S. Masuzaki, S. Morita, M. Goto, Y. Torii, N. Takeuchi, F. Shimpo, G. Nomura, M. Yokota, A. Kato, Y. Zhao and LHD Experimental Group 337–339 (2005) 995
- Surface temperature measurements of carbon materials in fusion devices, D. Hildebrandt, D. Naujoks and D. Sünder 337–339 (2005) 1064
- Helium**
- Measured signatures of low energy, physical sputtering in the line shape of neutral carbon emission, N.H. Brooks, R.C. Isler, D.G. Whyte, M.E. Fenstermacher, R.J. Groebner,

- P.C. Stangeby, W.W. Heidbrink, G.L. Jackson, M.A. Mahdavi, W.P. West and The DIII-D Team 337–339 (2005) 227
- Spectroscopic measurements of plasma flow in the SOL in C-Mod, K. Marr, B. Lipschultz, B. LaBombard and J.L. Terry 337–339 (2005) 286
- Development of ICRF wall conditioning technique on divertor-type tokamaks ASDEX Upgrade and JET, A. Lyssoivan, D.A. Hartmann, J.-M. Noterdaeme, R. Koch, V. Bobkov, T. Blackman, F. Braun, M. Cox, P. de Vries, H.G. Esser, H.-U. Fahrbach, J. Gafert, E. Gauthier, O. Gehre, M. Graham, G. Haas, A. Huber, K. Lawson, P.J. Lomas, M. Mantsinen, G. Matthews, M.-L. Mayoral, A. Meigs, Ph. Mertens, V. Mertens, I. Monakhov, J. Neuhauser, V. Philipp, V. Rohde, M. Santala, W. Suttrop, A. Walden, D.V. Eester, F. Wesner and ASDEX Upgrade Team and JET EFDA Contributors 337–339 (2005) 456
- Helium irradiation effects on retention behavior of deuterium implanted into boron coating film by PCVD, H. Kodama, M. Oyaidzu, A. Yoshikawa, H. Kimura, Y. Oya, M. Matsuyama, A. Sagara, N. Noda and K. Okuno 337–339 (2005) 649
- Energy and fluence dependences of helium retention in stainless steel, Y. Nobuta, Y. Yamauchi, Y. Hirohata, T. Hino, N. Ashikawa, K. Nishimura, A. Sagara, S. Masuzaki, T. Ozaki, N. Noda, A. Komori, O. Motojima and LHD Experimental Group 337–339 (2005) 932
- Microscopic and macroscopic damage in metals exposed to LHD divertor plasmas, M. Tokitani, M. Miyamoto, D. Koga, K. Tokunaga, T. Fujiwara, N. Yoshida, S. Masuzaki, N. Ashikawa, T. Morisaki, M. Shoji, A. Komori and LHD Experimental Group 337–339 (2005) 937
- Impact of low energy helium irradiation on plasma facing metals, N. Yoshida, H. Iwakiri, K. Tokunaga and T. Baba 337–339 (2005) 946
- Neutral helium line emission for edge plasma conditions, F.B. Rosmej, R. Stamm, S. Fritzsche, H. Capes, M. Koubiti, Y. Marandet, V.S. Lisitsa, N. Ohno, S. Takamura and D. Nishijima 337–339 (2005) 1101
- Hydrogen and Hydrides** (*includes Deuterium and Deuterides*)
- Three-dimensional proton trajectory analyses and simulation of neutral particle transport in an ICRF heated long pulse discharge on the large helical device, M. Shoji, R. Kumazawa, K. Saito, T. Watanabe, Y. Nakamura, S. Masuzaki, S. Morita, M. Goto, N. Noda, N. Ohyabu and LHD Experimental Groups 337–339 (2005) 186
- The effect of co-deposition of hydrogen and metals on wall pumping in long duration plasma in TRIAM-1M, M. Miyamoto, M. Tokitani, K. Tokunaga, T. Fujiwara, N. Yoshida, M. Sakamoto, H. Zushi, S. Nagata, K. Ono and TRIAM group 337–339 (2005) 436
- Modeling of the pellet cloud structure in the presence of ∇B induced drift, I.Yu. Senichenkov, I.Yu. Veselova, V.A. Rozhansky and R. Schneider 337–339 (2005) 446
- Measurement and modeling of hydrogen vibrational and rotational temperatures in weakly-ionized hydrogen discharges, E.M. Hollmann, A.Yu. Pigarov and K. Taylor 337–339 (2005) 451
- Hydrogen absorption capability of a niobium panel for pumping neutral atoms in divertor region, Y. Nakamura, A.I. Livshits, Y. Nakahara, Y. Hatano, A. Busnyuk and N. Ohyabu 337–339 (2005) 461
- Analysis of the $D\alpha$ spectral line shape on the carbon limiter insertion experiments in Heliotron J, H. Kawazome, K. Takahashi, S. Tsuboi, H. Arimoto, T. Mizuuchi, N. Nishino, H. Okada, K. Nagasaki, S. Kobayashi, S. Yamamoto, Y. Suzuki, K. Ohashi, S. Nakazawa, M. Kaneko, H. Shidara, Y. Fukagawa, S. Nishio, M. Yamada, H. Yamazaki, K. Kondo and F. Sano 337–339 (2005) 490
- Molecular deuterium sources in the outer divertor of JET, A. Pospieszczyk, S. Brezinsek, G. Sergienko, P.T. Greenland, A. Huber, A. Meigs, Ph. Mertens, U. Samm, M. Stamp and S. Wiesen 337–339 (2005) 500
- Local effects of gas fuelling and their impact on transport processes in the plasma edge of the tokamak TEXTOR, B. Unterberg, S. Brezinsek, G. Sergienko, C.C. Chu, P. Dumortier, J.D. Hey, D. Kalupin, A. Kreter, M. Lehnen, A.M. Messiaen, Ph. Mertens, A. Pospieszczyk, U. Samm, B. Schweer, M.Z. Tokar, G. Van Wassenhove and the TEXTOR-team 337–339 (2005) 515
- Role of wall implantation of charge exchange neutrals in the deuterium retention for Tore Supra long discharges, E. Tsitrone, D. Reiter, T. Loarer, C. Brosset, J. Bucalossi, L. Begrambekov, C. Grisolia, A. Grosman, J. Gunn, J. Hogan, R. Mitteau, B. Pégourié, P. Ghendrih, R. Reichle and P. Roubin 337–339 (2005) 539

- Recoil energy distribution of hydrogen isotopes adsorbed on tungsten, R. Bastasz and J.A. Whaley 337–339 (2005) 544
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- Laser desorption of deuterium retained in re-deposited carbon layers at TEXTOR and JET, B. Schweer, A. Huber, G. Sergienko, V. Philipps, F. Irrek, H.G. Esser, U. Samm, M. Kempenaars, M. Stamp, C. Gowers and D. Richards 337–339 (2005) 570
- Multi-scale modeling of hydrogen isotope transport in porous graphite, M. Warriar, R. Schneider, E. Salonen and K. Nordlund 337–339 (2005) 580
- Dynamic hydrogen isotope behavior and its chemical states in SiC by XPS and TDS technique, Y. Oya, Y. Onishi, H. Kodama, K. Okuno and S. Tanaka 337–339 (2005) 595
- Deuterium retention and release from molybdenum exposed to a Penning discharge, R.A. Causey, C.L. Kunz and D.F. Cowgill 337–339 (2005) 600
- Hydrogen retention of carbon dust produced in JT-60, H. Yoshida, Y. Yamauchi, Y. Hirohata, T. Arai, S. Suzuki, M. Akiba, N. Miya and T. Hino 337–339 (2005) 604
- Hydrogen retention in divertor tiles used in JT-60 for hydrogen discharge period, Y. Hirohata, T. Shibahara, T. Tanabe, T. Arai, Y. Gotoh, Y. Oya, H. Yoshida, Y. Morimoto, J. Yagy, K. Masaki, K. Okuno, T. Hino and N. Miya 337–339 (2005) 609
- Thermal desorption behavior of deuterium implanted into polycrystalline diamond, H. Kimura, M. Sasaki, Y. Morimoto, T. Takeda, H. Kodama, A. Yoshikawa, M. Oyaizu, K. Takahashi, K. Sakamoto, T. Imai and K. Okuno 337–339 (2005) 614
- Depth distribution of deuterium in single- and polycrystalline tungsten up to depths of several micrometers, V.Kh. Alimov, J. Roth and M. Mayer 337–339 (2005) 619
- Effects of background gas impurities during D^+ irradiation on D trapping in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 337–339 (2005) 629
- Helium irradiation effects on retention behavior of deuterium implanted into boron coating film by PCVD, H. Kodama, M. Oyaizu, A. Yoshikawa, H. Kimura, Y. Oya, M. Matsuyama, A. Sagara, N. Noda and K. Okuno 337–339 (2005) 649
- Hydrogen release behavior from graphite under pulsed laser irradiation, T. Shibahara, Y. Sakawa and T. Tanabe 337–339 (2005) 654
- Deuterium concentration in deposited carbon layers in Tore Supra, C. Brosset, H. Khodja and Tore Supra team 337–339 (2005) 664
- Study of plasma wall interactions in the long-pulse NB-heated discharges of JT-60U towards steady-state operation, H. Takenaga, N. Asakura, S. Higashijima, T. Nakano, H. Kubo, S. Konoshima, N. Oyama, A. Isayama, S. Ide, T. Fujita, Y. Miura and The JT-60 team 337–339 (2005) 802
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrone and J.C. Vallet 337–339 (2005) 821
- Studies of a-C: D film inhibition by nitrogen injection in laboratory plasmas and divertors, F.L. Tabarés, D. Taffalla, V. Rohde, M. Stamp, G. Matthews, G. Esser, V. Philipps, R. Doerner and M. Baldwin 337–339 (2005) 867
- Blister formation and deuterium retention on tungsten exposed to low energy and high flux deuterium plasma, K. Tokunaga, M.J. Baldwin, R.P. Doerner, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 337–339 (2005) 887
- Density functional theory and molecular dynamic studies of hydrogen interaction with plasma-facing graphite surfaces and the impact of boron doping, Y. Ferro, A. Jelea, F. Marinelli, C. Brosset and A. Allouche 337–339 (2005) 897
- Microscopic and macroscopic damage in metals exposed to LHD divertor plasmas, M. Tokitani, M. Miyamoto, D. Koga, K. Tokunaga, T. Fujiwara, N. Yoshida, S. Masuzaki, N. Ashikawa, T. Morisaki, M. Shoji, A. Komori and LHD Experimental Group 337–339 (2005) 937
- Formation of D inventories and structural modifications by deuterium bombardment of tungsten thin films, I. Bizyukov, K. Krieger, N. Azarenkov, S. Levchuk and Ch. Linsmeier 337–339 (2005) 965
- Measurement of hydrogen absorption in flowing liquid lithium in the flowing lithium retention experiment (FLIRE), R. Stubbers, W. Olczak, M. Nieto and D.N. Ruzic 337–339 (2005) 1033

- Damage process of high purity tungsten coatings by hydrogen beam heat loads, S. Tamura, K. Tokunaga, N. Yoshida, M. Taniguchi, K. Ezato, K. Sato, S. Suzuki, M. Akiba, Y. Tsunekawa and M. Okumiya 337–339 (2005) 1043
- Rovibrational distribution of H₂ in low temperature plasma: the dependence on the plasma parameters, B. Xiao, S. Kado, S. Kajita, D. Yamasaki and S. Tanaka 337–339 (2005) 1082
- Impurities**
- Methane screening in JET reverse field experiments, J.D. Strachan, B. Alper, G. Corrigan, S.K. Erements, C. Giroud, A. Korotkov, H. Leggate, G.F. Matthews, R.A. Pitts, J. Spence and M. Stamp 337–339 (2005) 25
- OEDGE modeling of ¹³C deposition in the inner divertor of DIII-D, J.D. Elder, P.C. Stangeby, D.G. Whyte, S.L. Allen, A. McLean, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, C.J. Lasnier, S. Lisgo, D.L. Rudakov, W.R. Wampler, J.G. Watkins and W.P. West 337–339 (2005) 79
- DIVIMP modeling of impurity flows and screening in Alcator C-Mod, T. Chung, I.H. Hutchinson, B. Lipschultz, B. LaBombard and S. Lisgo 337–339 (2005) 109
- Influence of core–edge coupling and impurities on the operation regimes of a fusion reactor, R. Stankiewicz and R. Zagórski 337–339 (2005) 191
- Simulation of afterglow plasma evolution in an inertial fusion energy chamber, B.K. Frolov, A.Yu. Pigarov, S.I. Krashennnikov, R.W. Petzoldt and D.T. Goodin 337–339 (2005) 206
- Accounting of the power balance for neutral-beam heated H-mode plasmas in NSTX, S.F. Paul, R. Maingi, V. Soukhanovskii, S.M. Kaye, H.W. Kugel and The NSTX Research Team 337–339 (2005) 251
- Multi-ion fluid simulation of tokamak edge plasmas including non-diffusive anomalous cross-field transport, A.Yu. Pigarov, E.M. Hollmann, S.I. Krashennnikov, T.D. Rognlien and W.P. West 337–339 (2005) 371
- Development of the plasma operational regime in the large helical device by the various wall conditioning methods, K. Nishimura, N. Ashikawa, S. Masuzaki, J. Miyazawa, A. Sagara, M. Goto, B.J. Peterson, A. Komori, N. Noda, K. Ida, O. Kaneko, K. Kawahata, T. Kobuchi, S. Kubo, S. Morita, M. Osakabe, S. Sakakibara, R. Sakamoto, K. Sato, T. Shimozuma, Y. Takeiri, K. Tanaka, O. Motojima and LHD Experimental Group 337–339 (2005) 431
- The effect of co-deposition of hydrogen and metals on wall pumping in long duration plasma in TRIAM-1M, M. Miyamoto, M. Tokitani, K. Tokunaga, T. Fujiwara, N. Yoshida, M. Sakamoto, H. Zushi, S. Nagata, K. Ono and TRIAM group 337–339 (2005) 436
- Fuelling efficiency of hydrocarbons in TJ-II plasmas, I. García-Cortés, F.L. Tabarés, D. Tafalla, A. Hidalgo, J.M. Carmona, K.J. McCarthy and F. Medina 337–339 (2005) 441
- Divertor regimes in NSTX, V.A. Soukhanovskii, R. Maingi, A.L. Roquemore, J. Boedo, C. Bush, R. Kaita, H.W. Kugel, B.P. LeBlanc, S.F. Paul, G.D. Porter, N.S. Wolf and NSTX Research Team 337–339 (2005) 475
- Development of NSTX particle control techniques, H.W. Kugel, R. Maingi, M. Bell, D. Gates, K. Hill, B. LeBlanc, D. Mueller, R. Kaita, S. Paul, S. Sabbagh, C.H. Skinner, V. Soukhanovskii, B. Stratton and R. Raman 337–339 (2005) 495
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- Particle control issues of a compact stellarator with external vacuum vessel, P. Mioduszewski and the QPS Group 337–339 (2005) 525
- Comparison of deuterium and hydrogen experiments in the Sustained Spheromak Physics Experiment, R.D. Wood, D.N. Hill, E.B. Hooper, H.S. McLean, D. Ryutov and S. Woodruff 337–339 (2005) 548
- A new versatile facility: Vehicle-1 for innovative PFC concepts evaluation and its first experiments on hydrogen recycling from solid and liquid lithium, Y. Hirooka, H. Ohgaki, Y. Ohtsuka and M. Nishikawa 337–339 (2005) 585
- Direct measurement of the impurity dynamics during an ELM cycle, M.R. Wade, K.H. Burrell, J.T. Hogan, A.W. Leonard, T.H. Osborne, P. Snyder and D. Coster 337–339 (2005) 737
- Effects of large area liquid lithium limiters on spherical torus plasmas, R. Kaita, R. Majeski, M. Boaz, P. Efthimion, G. Gettelfinger, T. Gray, D. Hoffman, S. Jardin, H. Kugel, P. Marfuta, T. Munsat, C. Neumeyer, S. Raftopoulos, V. Soukhanovskii, J. Spaleta, G. Taylor, J. Timberlake, R. Woolley, L. Zakharov, M. Finkenthal, D. Stutman, L. Delgado-Aparicio, R.P. Seraydarian, G. Antar, R. Doerner, S.

- Luckhardt, M. Baldwin, R.W. Conn, R. Maingi, M. Menon, R. Causey, D. Buchenauer, M. Ulrickson, B. Jones and D. Rodgers 337–339 (2005) 872
- Experimental investigations of castellated monoblock structures in TEXTOR, A. Litnovsky, V. Philipps, P. Wienhold, G. Sergienko, B. Emmoth, M. Rubel, U. Breuer and E. Wessel 337–339 (2005) 917
- Modeling and analysis of mixed-material surface evolution and sputtering, A.M. Yacout and A. Hassanein 337–339 (2005) 1048
- Identification of molecular carbon sources in the JET divertor by means of emission spectroscopy, S. Brezinsek, A. Pospieszczyk, M.F. Stamp, A. Meigs, A. Kirschner, A. Huber, Ph. Mertens and JET-EFDA contributors 337–339 (2005) 1058
- Interfaces**
- Spectroscopic measurements of plasma flow in the SOL in C-Mod, K. Marr, B. Lipschultz, B. LaBombard and J.L. Terry 337–339 (2005) 286
- Ion Irradiation**
- Chemical erosion of DIII-D lower divertor tiles, G.M. Wright, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 337–339 (2005) 74
- Recoil energy distribution of hydrogen isotopes adsorbed on tungsten, R. Bastasz and J.A. Whaley 337–339 (2005) 544
- Depth distribution of deuterium in single- and polycrystalline tungsten up to depths of several micrometers, V.Kh. Alimov, J. Roth and M. Mayer 337–339 (2005) 619
- Effects of background gas impurities during D^+ irradiation on D trapping in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 337–339 (2005) 629
- Controlled irradiation of CFC samples in the scrape-off layer of Tore Supra, J.P. Gunn, L. Begrambekov, C. Brosset, A. Gordeev, T. Loarer, E. Miljavina, P. Shigin, H. Khodja, P. Oddon, J.-Y. Pascal and S. Vartanian 337–339 (2005) 644
- Redeposition of hydrocarbon layers in fusion devices, W. Jacob 337–339 (2005) 839
- Low-energy tritium ion erosion of graphite, R.G. Macaulay-Newcombe, A.A. Haasz and J.W. Davis 337–339 (2005) 857
- Blister formation and deuterium retention on tungsten exposed to low energy and high flux deuterium plasma, K. Tokunaga, M.J. Baldwin, R.P. Doerner, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 337–339 (2005) 887
- Measurements of chemical erosion of ATJ graphite by low energy D_2^+ , F.W. Meyer, H.F. Krause and L.I. Vergara 337–339 (2005) 922
- Energy and fluence dependences of helium retention in stainless steel, Y. Nobuta, Y. Yamauchi, Y. Hirohata, T. Hino, N. Ashikawa, K. Nishimura, A. Sagara, S. Masuzaki, T. Ozaki, N. Noda, A. Komori, O. Motojima and LHD Experimental Group 337–339 (2005) 932
- Hydrogen blister formation and cracking behavior for various tungsten materials, Y. Ueda, T. Funabiki, T. Shimada, K. Fukumoto, H. Kurishita and M. Nishikawa 337–339 (2005) 1010
- Incident-mass dependence of temperature-enhanced ion-induced sputtering in liquid metals, M.D. Coventry and D.N. Ruzic 337–339 (2005) 1015
- Damage process of high purity tungsten coatings by hydrogen beam heat loads, S. Tamura, K. Tokunaga, N. Yoshida, M. Taniguchi, K. Ezato, K. Sato, S. Suzuki, M. Akiba, Y. Tsunekawa and M. Okumiya 337–339 (2005) 1043
- Irradiation** (*not listed elsewhere, includes Irradiation History or Schedule*)
- Tungsten erosion under plasma heat loads typical for ITER type I ELMs and disruptions, I.E. Garkusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.S. Landman, V.A. Makhraj, A.K. Marchenko, D.G. Solyakov, V.I. Tereshin, S.A. Trubchaninov and A.V. Tsarenko 337–339 (2005) 707
- Simulation of tokamak armour erosion and plasma contamination at intense transient heat fluxes in ITER, I.S. Landman, B.N. Bazylev, I.E. Garkusha, A. Loarte, S.E. Pestchanyi and V.M. Safronov 337–339 (2005) 761
- Joining** (*includes Welding, Brazing, Soldering*)
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrone and J.C. Vallet 337–339 (2005) 821
- Kinetics**
- Experimental study of different carbon dust growth mechanisms, C. Arnas, C. Dominique, P. Roubin, C. Martin, C. Laffon, P. Parent, C. Brosset and B. Pégourie 337–339 (2005) 69

- Modification of atomic physics rates due to nonlocal electron parallel heat transport in divertor plasmas, F. Allais, J.P. Matte, F. Alouani-Bibi, C.G. Kim, D.P. Stotler and T.D. Rognlien 337–339 (2005) 246
- Kinetic investigation of a collisionless scrape-off layer with a source of poloidal momentum, J.P. Gunn 337–339 (2005) 310
- Boundary conditions for the multi-ion magnetized plasma-wall transition, D. Tskhakaya and S. Kuhn 337–339 (2005) 405
- High energy electron deposition within vertical ports, during lower hybrid current drive on Tore Supra, F. Saint-Laurent, G. Martin, V. Basiuk, E. Faudot, C. Grisolia, S. Heuraux and M. Lipa 337–339 (2005) 831
- Neutral helium line emission for edge plasma conditions, F.B. Rosmej, R. Stamm, S. Fritzsche, H. Capes, M. Koubiti, Y. Marandet, V.S. Lisitsa, N. Ohno, S. Takamura and D. Nishijima 337–339 (2005) 1101
- Kinetic (PIC) simulations for a plane probe in a collisional plasma, S. Teodoru, D. Tskhakaya, S. Kuhn, D.D. Tskhakaya, R. Schrittwieser, C. Ioniță and G. Popa 337–339 (2005) 1111
- Laser**
- Detached plasma control by negative ion in divertor simulator, M. Ono, A. Tonegawa, K. Kumita, T. Shibuya and K. Kawamura 337–339 (2005) 261
- Fuel removal from bumper limiter tiles by using a pulsed excimer laser, B. Emmoth, S. Khartsev, A. Pisarev, A. Grishin, U. Karlsson, A. Litnovsky, M. Rubel and P. Wienhold 337–339 (2005) 639
- Hydrogen release behavior from graphite under pulsed laser irradiation, T. Shibahara, Y. Sakawa and T. Tanabe 337–339 (2005) 654
- Surface temperature measurements of carbon materials in fusion devices, D. Hildebrandt, D. Naujoks and D. Sünder 337–339 (2005) 1064
- Limiter Materials**
- Tungsten limiter tests in ASDEX Upgrade, M.Y. Ye, H. Maier, A. Herrmann, V. Rohde, H. Bolt, R. Neu, J. Neuhauser and ASDEX Upgrade Team 337–339 (2005) 104
- A new versatile facility: Vehicle-1 for innovative PFC concepts evaluation and its first experiments on hydrogen recycling from solid and liquid lithium, Y. Hirooka, H. Ohgaki, Y. Ohtsuka and M. Nishikawa 337–339 (2005) 585
- Interaction of ELMs and fast particles with in-vessel components in ASDEX Upgrade, A. Herrmann, J. Neuhauser, V. Rohde, R. Dux, T. Eich, C.J. Fuchs, M.Y. Ye and ASDEX Upgrade team 337–339 (2005) 697
- Steady state heat exhaust in Tore Supra: operational safety and edge parameters, R. Mitteau and Tore Supra team 337–339 (2005) 795
- Overview of goals and performance of ITER and strategy for plasma-wall interaction investigation, M. Shimada, A.E. Costley, G. Federici, K. Ioki, A.S. Kukushkin, V. Mukhovatov, A. Polevoi and M. Sugihara 337–339 (2005) 808
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrona and J.C. Vallet 337–339 (2005) 821
- Long-pulse discharges by synergy of LHW and IBW heating in the HT-7 tokamak, X. Gao, J. Li, Y. Yang, J.K. Xie, J.R. Luo, J.Y. Zhao, X.Z. Gong, L.Q. Hu, X.D. Zhang, Y.J. Shi, B.N. Wan, K. Tanaka, R. Sakamoto, Y.P. Zhao, G.L. Kuang, J.S. Hu, M. Asif, Y.X. Jie, H.Q. Liu, J. Liu, Q. Xu, L. Gao and The HT-7 Team 337–339 (2005) 835
- Angular resolved energy distributions of low energy light ions reflected from a polycrystalline Mo surface, H. Yamaoka, Y. Matsumoto, M. Nishiura, K. Nishimura, M. Sasao and M. Wada 337–339 (2005) 942
- Damage process of high purity tungsten coatings by hydrogen beam heat loads, S. Tamura, K. Tokunaga, N. Yoshida, M. Taniguchi, K. Ezato, K. Sato, S. Suzuki, M. Akiba, Y. Tsunekawa and M. Okumiya 337–339 (2005) 1043
- Liquid Metals**
- Model development and analysis of temperature-dependent lithium sputtering and sputtered Li⁺ transport for tokamak plasma-facing applications, J.P. Allain, J.N. Brooks, D.A. Alman and L.E. Gonzalez 337–339 (2005) 94
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816
- Effects of large area liquid lithium limiters on spherical torus plasmas, R. Kaita, R. Majeski, M. Boaz, P. Efthimion,

- G. Gettelfinger, T. Gray, D. Hoffman, S. Jardin, H. Kugel, P. Marfuta, T. Munsat, C. Neumeyer, S. Raftopoulos, V. Soukhanovskii, J. Spaleta, G. Taylor, J. Timberlake, R. Woolley, L. Zakharov, M. Finkenthal, D. Stutman, L. Delgado-Aparicio, R.P. Seraydarian, G. Antar, R. Doerner, S. Luckhardt, M. Baldwin, R.W. Conn, R. Maingi, M. Menon, R. Causey, D. Buchenauer, M. Ulrickson, B. Jones and D. Rodgers 337–339 (2005) 872
- Incident-mass dependence of temperature-enhanced ion-induced sputtering in liquid metals, M.D. Coventry and D.N. Ruzic 337–339 (2005) 1015
- Molecular dynamics modeling of deuterium in liquid lithium surfaces, H.-T. Qiu and D.N. Ruzic 337–339 (2005) 1029
- Measurement of hydrogen absorption in flowing liquid lithium in the flowing lithium retention experiment (FLIRE), R. Stubbers, W. Olczak, M. Nieto and D.N. Ruzic 337–339 (2005) 1033
- PSI modeling of liquid lithium divertors for the NSTX tokamak, J.N. Brooks, J.P. Allain, T.D. Rognlien and R. Maingi 337–339 (2005) 1053
- A novel diagnostic for time-resolved spectroscopic argon and lithium density measurements, L. Schmitz, P. Calderoni, A. Ying and M.A. Abdou 337–339 (2005) 1096
- Mathematical and Computational Methods**
- Modelling of deposition of hydrocarbon films underneath the divertor and in the pumping ducts of ITER, G. Federici, M. Mayer, G. Strohmayer, V. Chuyanov and C. Day 337–339 (2005) 40
- Model development and analysis of temperature-dependent lithium sputtering and sputtered Li^+ transport for tokamak plasma-facing applications, J.P. Allain, J.N. Brooks, D.A. Alman and L.E. Gonzalez 337–339 (2005) 94
- 3D edge energy transport in stellarator configurations, N. McTaggart, R. Zagórski, X. Bonnin, A. Runov, R. Schneider, T. Kaiser, T. Rognlien and M. Umansky 337–339 (2005) 221
- Simulation of plasma fluxes to material surfaces with self-consistent edge turbulence and transport for tokamaks, T.D. Rognlien, M.V. Umansky, X.Q. Xu, R.H. Cohen and L.L. LoDestro 337–339 (2005) 327
- Magnetic structure at the edge of a compact stellarator (NCSX), A. Grossman, T. Kaiser and P.K. Mioduszewski 337–339 (2005) 400
- Density functional theory and molecular dynamic studies of hydrogen interaction with plasma-facing graphite surfaces and the impact of boron doping, Y. Ferro, A. Jelea, F. Marinelli, C. Brosset and A. Allouche 337–339 (2005) 897
- Molecular dynamics simulation of Li surface erosion and bubble formation, Z. Insepov and A. Hassanein 337–339 (2005) 912
- Molecular dynamics modeling of deuterium in liquid lithium surfaces, H.-T. Qiu and D.N. Ruzic 337–339 (2005) 1029
- Microstructure and Texture (excludes by Irradiation)**
- Influence of microstructure of tungsten on solid state reaction rate with amorphous carbon film, Y. Hatano, M. Takamori, K. Nogita, K. Matsuda, S. Ikeno and K. Watanabe 337–339 (2005) 902
- Molecular dynamics modeling of deuterium in liquid lithium surfaces, H.-T. Qiu and D.N. Ruzic 337–339 (2005) 1029
- Surface temperature measurements of carbon materials in fusion devices, D. Hildebrandt, D. Naujoks and D. Sünder 337–339 (2005) 1064
- Moderator and Reflector Materials**
- Exposure of metal mirrors in the scrape-off layer of TEXTOR, P. Wienhold, A. Litnovsky, V. Philipps, B. Schweer, G. Sergienko, P. Oelhafen, M. Ley, G. De Temmerman, W. Schneider, D. Hildebrandt, M. Laux, M. Rubel and B. Emmoth 337–339 (2005) 1116
- Molybdenum, Molybdenum Alloys and Compounds**
- Deuterium retention and release from molybdenum exposed to a Penning discharge, R.A. Causey, C.L. Kunz and D.F. Cowgill 337–339 (2005) 600
- Angular resolved energy distributions of low energy light ions reflected from a polycrystalline Mo surface, H. Yamaoka, Y. Matsumoto, M. Nishiura, K. Nishimura, M. Sasao and M. Wada 337–339 (2005) 942
- Study of optical properties of $\text{Mo}_x\text{C}_{1-x}$ films, G. De Temmerman, M. Ley, J. Boudaden and P. Oelhafen 337–339 (2005) 956
- Exposure of metal mirrors in the scrape-off layer of TEXTOR, P. Wienhold, A. Litnovsky, V. Philipps, B. Schweer, G. Sergienko, P. Oelhafen, M. Ley, G. De Temmerman, W. Schneider, D. Hildebrandt, M. Laux, M. Rubel and B. Emmoth 337–339 (2005) 1116
- Monitoring Methods**
- Detached plasma control by negative ion in divertor simulator, M. Ono, A. Tonegawa, K. Kumita, T. Shibuya and K. Kawamura 337–339 (2005) 261

- Steady state heat exhaust in Tore Supra: operational safety and edge parameters, R. Mitteau and Tore Supra team 337–339 (2005) 795
- Ion sensitive probe measurement in the linear plasma device PSI-2, N. Ezumi, Zh. Kiss'ovski, W. Bohmeyer and G. Fussmann 337–339 (2005) 1106
- Optical Microscopy**
- Study of optical properties of $\text{Mo}_x\text{C}_{1-x}$ films, G. De Temmerman, M. Ley, J. Boudaden and P. Oelhafen 337–339 (2005) 956
- Permeation**
- Hydrogen absorption capability of a niobium panel for pumping neutral atoms in divertor region, Y. Nakamura, A.I. Livshits, Y. Nakahara, Y. Hatano, A. Busnyuk and N. Ohyabu 337–339 (2005) 461
- Phase Equilibria** (*includes Constitution, Phase Stability, Phase Instability*)
- Measurement of hydrogen absorption in flowing liquid lithium in the flowing lithium retention experiment (FLIRE), R. Stubbers, W. Olczak, M. Nieto and D.N. Ruzic 337–339 (2005) 1033
- Phase Transformation** (*includes Evaporation, Sublimation*)
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Energy flow during disruptions in JET, J.I. Paley, P. Andrew, S.C. Cowley, W. Fundamenski, A. Huber and JET EFDA Contributors 337–339 (2005) 702
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N. Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816
- Physical Properties** (*not listed elsewhere*)
- Experimental study of negative ion profiles in H_2 -MAR plasmas in divertor simulator MAP-II, S. Kado, S. Kajita, D. Yamasaki, Y. Iida, B. Xiao, T. Shikama, T. Oishi, A. Okamoto and S. Tanaka 337–339 (2005) 166
- Detached plasma control by negative ion in divertor simulator, M. Ono, A. Tonegawa, K. Kumita, T. Shibuya and K. Kawamura 337–339 (2005) 261
- Numerical modelling of changes of edge plasma transport due to the presence of TEXTOR-DED, H. Gerhauser, R. Zagórski, D. Reiser and M.Z. Tokar' 337–339 (2005) 337
- Statistical analysis of turbulent front propagation in the scrape-off-layer, Ph. Ghendrih, Y. Sarazin, G. Attuel, S. Benkadda, P. Beyer, G. Darmet, G. Falchetto, C. Figarella, X. Garbet, V. Grandgirard and M. Ottaviani 337–339 (2005) 347
- Pellet fuelling in Tore Supra long discharges, A. Géraud, J. Bucalossi, T. Loarer, B. Pégourie, C. Grisolia, G. Gros and J. Gunn 337–339 (2005) 485
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- Integrated exhaust control with divertor parameter feedback and pellet ELM pacemaking in ASDEX Upgrade, A. Kallenbach, P.T. Lang, R. Dux, C. Fuchs, A. Herrmann, H. Meister, V. Mertens, R. Neu, T. Pütterich, T. Zehetbauer and the ASDEX Upgrade Team 337–339 (2005) 732
- Plasma-Materials Interaction**
- Material migration in divertor tokamaks, G.F. Matthews 337–339 (2005) 1
- Tungsten redistribution patterns in ASDEX Upgrade, K. Krieger, J. Likonen, M. Mayer, R. Pugno, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 10
- Experimental observations and modelling of carbon transport in the inner divertor of JET, A. Kirschner, V. Philipps, D.P. Coster, S.K. Erents, H.G. Esser, G. Federici, A.S. Kukushkin, A. Loarte, G.F. Matthews, J. Roth, U. Samm and JET EFDA Contributors 337–339 (2005) 17
- Methane screening in JET reverse field experiments, J.D. Strachan, B. Alper, G. Corrigan, S.K. Erents, C. Giroud, A. Korotkov, H. Leggate, G.F. Matthews, R.A. Pitts, J. Spence and M. Stamp 337–339 (2005) 25
- ^{13}C transport studies in L-mode divertor plasmas on DIII-D, S.L. Allen, W.R. Wampler, A.G. McLean, D.G. Whyte, W.P. West, P.C. Stangeby, N.H. Brooks, D.L. Rudakov, V. Phillips, M. Rubel, G.F. Matthews, A. Nagy, R. Ellis and A.S. Bozek 337–339 (2005) 30
- Carbon dust formation from re-deposited layers in high-density hydrogen/helium plasmas in the NAGDIS-II device, N. Ohno, Y. Kobayashi, T. Sugimoto and S. Takamura 337–339 (2005) 35

- Modelling of deposition of hydrocarbon films underneath the divertor and in the pumping ducts of ITER, G. Federici, M. Mayer, G. Strohmayer, V. Chuyanov and C. Day 337–339 (2005) 40
- ITER divertor performance in conditions of carbon re-erosion, A.S. Kukushkin, H.D. Pacher, D.P. Coster, G.W. Pacher and D. Reiter 337–339 (2005) 50
- Beryllium accumulation at the inner divertor of JET, J. Likonen, E. Vainonen-Ahlgren, J.P. Coad, R. Zilliagus, T. Renvall, D.E. Hole, M. Rubel, K. Arstila, G.F. Matthews, M. Stamp and JET-EFDA Contributors 337–339 (2005) 60
- Effect of plasma configuration on carbon migration measured in the inner divertor of JET using quartz microbalance, H.G. Esser, V. Philipps, M. Freisinger, G.F. Matthews, J.P. Coad, G.F. Neill and JET EFDA Contributors 337–339 (2005) 84
- Model development and analysis of temperature-dependent lithium sputtering and sputtered Li^+ transport for tokamak plasma-facing applications, J.P. Allain, J.N. Brooks, D.A. Alman and L.E. Gonzalez 337–339 (2005) 94
- Outer divertor target deposited layers during reversed magnetic field operation in JET, P. Andrew, J.P. Coad, Y. Corre, T. Eich, A. Herrmann, G.F. Matthews, J.I. Paley, L. Pickworth, R.A. Pitts, M.F. Stamp and JET EFDA Contributors 337–339 (2005) 99
- Tungsten limiter tests in ASDEX Upgrade, M.Y. Ye, H. Maier, A. Herrmann, V. Rohde, H. Bolt, R. Neu, J. Neuhauser and ASDEX Upgrade Team 337–339 (2005) 104
- DIVIMP modeling of impurity flows and screening in Alcator C-Mod, T. Chung, I.H. Hutchinson, B. Lipschultz, B. LaBombard and S. Lisgo 337–339 (2005) 109
- Motion and lifetime of dust grains in a tokamak plasma, J.D. Martin, M. Coppins and G.F. Counsell 337–339 (2005) 114
- Carbon erosion and deposition on the ASDEX Upgrade divertor tiles, M. Mayer, V. Rohde, J. Likonen, E. Vainonen-Ahlgren, K. Krieger, X. Gong, J. Chen and ASDEX Upgrade Team 337–339 (2005) 119
- DIVIMP modeling of the toroidally symmetrical injection of $^{13}\text{CH}_4$ into the upper SOL of DIII-D, A.G. McLean, J.D. Elder, P.C. Stangeby, S.L. Allen, J.A. Boedo, N.H. Brooks, M.E. Fenstermacher, M. Groth, S. Lisgo, A. Nagy, D.L. Rudakov, W.R. Wampler, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 124
- Time resolved deposition measurements in NSTX, C.H. Skinner, H. Kugel, A.L. Roquemore, J. Hogan, W.R. Wampler and the NSTX team 337–339 (2005) 129
- Measurements of carbon, deuterium and boron deposition in DIII-D, W.R. Wampler, S.L. Allen, A.G. McLean and W.P. West 337–339 (2005) 134
- OSM-EIRENE modeling of neutral pressures in the Alcator C-Mod divertor, S. Lisgo, P. Börner, C. Boswell, D. Elder, B. LaBombard, B. Lipschultz, C.S. Pitcher, D. Reiter, P.C. Stangeby, J.L. Terry and S. Wiesen 337–339 (2005) 139
- Edge and divertor physics with reversed toroidal field in JET, R.A. Pitts, P. Andrew, X. Bonnin, A.V. Chankin, Y. Corre, G. Corrigan, D. Coster, I. Duran, T. Eich, S.K. Erents, W. Fundamenski, A. Huber, S. Jachmich, G. Kirnev, M. Lehnen, P.J. Lomas, A. Loarte, G.F. Matthews, J. Rapp, C. Silva, M.F. Stamp, J.D. Strachan, E. Tsitroni and contributors to the EFDA-JET workprogramme 337–339 (2005) 146
- Spectroscopic study of hydrogen particle behavior in attached and detached divertor plasmas of JT-60U, H. Kubo, H. Takenaga, K. Sawada, T. Nakano, S. Kobayashi, S. Higashijima, N. Asakura and K. Shimizu 337–339 (2005) 161
- Heat deposition patterns on the target plates of the dynamic ergodic divertor, M.W. Jakubowski, S.S. Abdullaev, K.H. Finken, M. Lehnen and the TEXTOR team 337–339 (2005) 176
- Observations of macroscopic oscillations of the detachment front for injection of H_2 , He, and Ne into the simulated baffled divertor, A. Matsubara, T. Watanabe, T. Sugimoto, S. Sudo and K. Sato 337–339 (2005) 181
- Three-dimensional proton trajectory analyses and simulation of neutral particle transport in an ICRF heated long pulse discharge on the large helical device, M. Shoji, R. Kumazawa, K. Saito, T. Watanabe, Y. Nakamura, S. Masuzaki, S. Morita, M. Goto, N. Noda, N. Ohyabu and LHD Experimental Groups 337–339 (2005) 186
- Radiation belts in the Wendelstein-7AS stellarator, U. Wenzel, H. Thomsen, Y. Feng, P. Grigull and K. McCormick 337–339 (2005) 196
- Angular dependence of energy and particle fluxes in a magnetized plasma, B. Koch, W. Bohmeyer and G. Fussmann 337–339 (2005) 211
- Variation in particle pumping due to changes in topology in high

- performance DIII-D plasmas, T.W. Petrie, N.H. Brooks, M.E. Fenstermacher, C.M. Greenfield, M. Groth, A.W. Hyatt, A.W. Leonard, M.A. Mahdavi, G.D. Porter, M.E. Rensink, M.J. Schaffer, M.R. Wade, J.G. Watkins, N.S. Wolf and The DIII-D Team 337–339 (2005) 216
- Spatial structure of detached plasmas in the ULS divertor simulator, P.K. Browning, U. Fantz, K.J. Gibson, B. Mihaljcic and D. Wunderlich 337–339 (2005) 232
- The effect of field reversal on the JET MkIIGB-SRP divertor performance in L-mode density limit discharges, A. Huber, J. Rapp, P. Andrew, P. Coad, G. Corrigan, K. Erents, W. Fundamenski, L.C. Ingesson, S. Jachmich, A. Korotkov, G.F. Matthews, Ph. Mertens, V. Philipps, R. Pitts, B. Schweer, G. Sergienko, M. Stamp and JET EFDA Contributors 337–339 (2005) 241
- Accounting of the power balance for neutral-beam heated H-mode plasmas in NSTX, S.F. Paul, R. Maingi, V. Soukhanovskii, S.M. Kaye, H.W. Kugel and The NSTX Research Team 337–339 (2005) 251
- Re-construction of detached divertor plasma conditions in DIII-D using spectroscopic and probe data, S. Lisgo, P.C. Stangeby, J.D. Elder, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 256
- Effect of drifts on the high Mach flow associated with the divertor detachment, K. Hoshino, A. Hatayama, R. Schneider and D.P. Coster 337–339 (2005) 276
- On the energy transfer between flows and turbulence in the plasma boundary of fusion devices, E. Sánchez, C. Hidalgo, B. Gonçalves, C. Silva, M.A. Pedrosa, M. Hron, K. Erents and JET EFDA contributors 337–339 (2005) 296
- Effect of $B \times \nabla B$ direction on SOL energy transport in JET, W. Fundamenski, P. Andrew, K. Erents, A. Huber, G. Kirnev, G. Matthews, R. Pitts, V. Riccardo, S. Sipilä and EFDA JET contributors 337–339 (2005) 305
- Plasma edge cross-field transport: experiment and theory, B.A. Carreras 337–339 (2005) 315
- Simulation of plasma fluxes to material surfaces with self-consistent edge turbulence and transport for tokamaks, T.D. Rognlien, M.V. Umansky, X.Q. Xu, R.H. Cohen and L.L. LoDestro 337–339 (2005) 327
- Numerical modelling of changes of edge plasma transport due to the presence of TEXTOR-DED, H. Gerhauser, R. Zagórski, D. Reiser and M.Z. Tokar 337–339 (2005) 337
- Comparison of plasma parameters between QH and ELMing phases of the same discharges, C.J. Lasniera, W.P. West, K.H. Burrell, J.S. deGrassie, E.J. Doyle and T.H. Osborne 337–339 (2005) 391
- Kinetic neutral transport effects in the pedestal of H-mode discharges in the DIII-D tokamak, L.W. Owen, R.J. Groebner and M.A. Mahdavi 337–339 (2005) 410
- Comparison of limiter and emissive electrode bias on the tokamak ISTTOK, C. Silva, I. Nedzelskiy, H. Figueiredo, R.M.O. Galvão, J.A.C. Cabral and C.A.F. Varandas 337–339 (2005) 415
- Assessment of the poloidal distribution of core plasma fueling and impurity sources in DIII-D, M. Groth, L.W. Owen, G.D. Porter, N.H. Brooks, M.E. Fenstermacher, W.H. Meyer, A.W. Leonard, T.W. Petrie, D.L. Rudakov, G. Wang, J.G. Watkins and N.S. Wolf 337–339 (2005) 425
- The effect of co-deposition of hydrogen and metals on wall pumping in long duration plasma in TRIAM-1M, M. Miyamoto, M. Tokitani, K. Tokunaga, T. Fujiwara, N. Yoshida, M. Sakamoto, H. Zushi, S. Nagata, K. Ono and TRIAM group 337–339 (2005) 436
- Fuelling efficiency of hydrocarbons in TJ-II plasmas, I. García-Cortés, F.L. Tabarés, D. Tafalla, A. Hidalgo, J.M. Carmona, K.J. McCarthy and F. Medina 337–339 (2005) 441
- Development of ICRF wall conditioning technique on divertor-type tokamaks ASDEX Upgrade and JET, A. Lysoivan, D.A. Hartmann, J.-M. Noterdaeme, R. Koch, V. Bobkov, T. Blackman, F. Braun, M. Cox, P. de Vries, H.G. Esser, H.-U. Fahrbach, J. Gafert, E. Gauthier, O. Gehre, M. Graham, G. Haas, A. Huber, K. Lawson, P.J. Lomas, M. Mantsinen, G. Matthews, M.-L. Mayoral, A. Meigs, Ph. Mertens, V. Mertens, I. Monakhov, J. Neuhauser, V. Philipps, V. Rohde, M. Santala, W. Suttrop, A. Walden, D.V. Eester, F. Wesner and ASDEX Upgrade Team and JET EFDA Contributors 337–339 (2005) 456
- Modeling of three-dimensional neutral transport in tandem mirror plasmas using a Monte-Carlo code, Y. Nakashima, Y. Higashizono, T. Ohki, M. Shoji, S. Kobayashi, Y. Kubota, M. Yoshikawa, M.K. Islam, K. Watanabe, T. Ogita, M. Yamada, R. Murakami and T. Cho 337–339 (2005) 466
- Pumping capability and particle balance in W7-X: a self-consistent 3D study,

- D. Sharma, Y. Feng, F. Sardei, J. Kisslinger, H. Grote, P. Grigull and H. Renner 337–339 (2005) 471
- Divertor regimes in NSTX, V.A. Soukhanovskii, R. Maingi, A.L. Roquemore, J. Boedo, C. Bush, R. Kaita, H.W. Kugel, B.P. LeBlanc, S.F. Paul, G.D. Porter, N.S. Wolf and NSTX Research Team 337–339 (2005) 475
- Analysis of the $D\alpha$ spectral line shape on the carbon limiter insertion experiments in Heliotron J, H. Kawazome, K. Takahashi, S. Tsuboi, H. Arimoto, T. Mizuuchi, N. Nishino, H. Okada, K. Nagasaki, S. Kobayashi, S. Yamamoto, Y. Suzuki, K. Ohashi, S. Nakazawa, M. Kaneko, H. Shidara, Y. Fukagawa, S. Nishio, M. Yamada, H. Yamazaki, K. Kondo and F. Sano 337–339 (2005) 490
- Development of NSTX particle control techniques, H.W. Kugel, R. Maingi, M. Bell, D. Gates, K. Hill, B. LeBlanc, D. Mueller, R. Kaita, S. Paul, S. Sabbagh, C.H. Skinner, V. Soukhanovskii, B. Stratton and R. Raman 337–339 (2005) 495
- Molecular deuterium sources in the outer divertor of JET, A. Pospieszczyk, S. Brezinsek, G. Sergienko, P.T. Greenland, A. Huber, A. Meigs, Ph. Mertens, U. Samm, M. Stamp and S. Wiesen 337–339 (2005) 500
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- The response of the Tore Supra edge plasma to supersonic pulsed gas injection, R. Pánek, J.P. Gunn, J. Bucalossi, I. Đuran, A. Geraud, M. Hron, T. Loarer, B. Pégourié, J. Stöckel and E. Tsitrone 337–339 (2005) 530
- Role of wall implantation of charge exchange neutrals in the deuterium retention for Tore Supra long discharges, E. Tsitrone, D. Reiter, T. Loarer, C. Brosset, J. Bucalossi, L. Begrambekov, C. Grisolia, A. Grosman, J. Gunn, J. Hogan, R. Mitteau, B. Pégourié, P. Ghendrih, R. Reichle and P. Roubin 337–339 (2005) 539
- Recoil energy distribution of hydrogen isotopes adsorbed on tungsten, R. Bastasz and J.A. Whaley 337–339 (2005) 544
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- The removal of co-deposited hydrocarbon films from plasma facing components using high-power pulsed flashlamp irradiation, K.J. Gibson, G.F. Counsell, C. Curran, M.J. Forrest, M.J. Kay and K.G. Watkins 337–339 (2005) 565
- Laser desorption of deuterium retained in re-deposited carbon layers at TEXTOR and JET, B. Schweer, A. Huber, G. Sergienko, V. Philipps, F. Irrek, H.G. Esser, U. Samm, M. Kempenaars, M. Stamp, C. Gowers and D. Richards 337–339 (2005) 570
- Tritium distribution in JET Mark IIA type divertor tiles analysed by BIXS, Y. Torikai, M. Matsuyama, N. Bekris, M. Glugla, P. Coad, W. Naegele, A. Erbe, N. Noda, V. Philipps and K. Watanabe 337–339 (2005) 575
- A new versatile facility: Vehicle-1 for innovative PFC concepts evaluation and its first experiments on hydrogen recycling from solid and liquid lithium, Y. Hirooka, H. Ohgaki, Y. Ohtsuka and M. Nishikawa 337–339 (2005) 585
- Dynamic hydrogen isotope behavior and its chemical states in SiC by XPS and TDS technique, Y. Oya, Y. Onishi, H. Kodama, K. Okuno and S. Tanaka 337–339 (2005) 595
- Hydrogen retention of carbon dust produced in JT-60, H. Yoshida, Y. Yamauchi, Y. Hirohata, T. Arai, S. Suzuki, M. Akiba, N. Miya and T. Hino 337–339 (2005) 604
- Thermal desorption behavior of deuterium implanted into polycrystalline diamond, H. Kimura, M. Sasaki, Y. Morimoto, T. Takeda, H. Kodama, A. Yoshikawa, M. Oyaidzu, K. Takahashi, K. Sakamoto, T. Imai and K. Okuno 337–339 (2005) 614
- Depth distribution of deuterium in single- and polycrystalline tungsten up to depths of several micrometers, V.Kh. Alimov, J. Roth and M. Mayer 337–339 (2005) 619
- Tritium particle balance and retention during DT discharges in JET, T. Loarer, J. Bucalossi, G. Matthew, V. Philipps and JET-EFDA Collaborators 337–339 (2005) 624
- Tritium distribution on plasma-facing tiles from ASDEX Upgrade, K. Sugiyama, T. Tanabe, K. Krieger, R. Neu and N. Bekris 337–339 (2005) 634
- Controlled irradiation of CFC samples in the scrape-off layer of Tore Supra, J.P. Gunn, L. Begrambekov, C. Brosset, A. Gordeev, T. Loarer, E. Miljavina, P. Shigin, H. Khodja, P. Odden, J.-Y. Pascal and S. Vartanian 337–339 (2005) 644
- Helium irradiation effects on retention behavior of deuterium implanted into boron coating film by PCVD, H. Kodama, M. Oyaidzu, A. Yoshikawa,

- H. Kimura, Y. Oya, M. Matsuyama, A. Sagara, N. Noda and K. Okuno 337–339 (2005) 649
- Power deposition onto plasma facing components in poloidal divertor tokamaks during type-I ELMs and disruptions, T. Eich, A. Herrmann, G. Pautasso, P. Andrew, N. Asakura, J.A. Boedo, Y. Corre, M.E. Fenstermacher, J.C. Fuchs, W. Fundamenski, G. Federici, E. Gauthier, B. Goncalves, O. Gruber, A. Kirk, A.W. Leonard, A. Loarte, G.F. Matthews, J. Neuhauser, R.A. Pitts, V. Riccardo and C. Silva 337–339 (2005) 669
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Suppression of large edge localized modes in high confinement DIII-D plasmas with a stochastic magnetic boundary, T.E. Evans, R.A. Moyer, J.G. Watkins, P.R. Thomas, T.H. Osborne, J.A. Boedo, M.E. Fenstermacher, K.H. Finken, R.J. Groebner, M. Groth, J. Harris, G.L. Jackson, R.J. La Haye, C.J. Lasnier, M.J. Schaffer, G. Wang and L. Zeng 337–339 (2005) 691
- Interaction of ELMs and fast particles with in-vessel components in ASDEX Upgrade, A. Herrmann, J. Neuhauser, V. Rohde, R. Dux, T. Eich, C.J. Fuchs, M.Y. Ye and ASDEX Upgrade team 337–339 (2005) 697
- Energy flow during disruptions in JET, J.I. Paley, P. Andrew, S.C. Cowley, W. Fundamenski, A. Huber and JET EFDA Contributors 337–339 (2005) 702
- Tungsten erosion under plasma heat loads typical for ITER type I ELMs and disruptions, I.E. Garkusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.S. Landman, V.A. Makhilaj, A.K. Marchenko, D.G. Solyakov, V.I. Tereshin, S.A. Trubchaninov and A.V. Tsarenko 337–339 (2005) 707
- Far scrape-off layer and near wall plasma studies in DIII-D, D.L. Rudakov, J.A. Boedo, R.A. Moyer, N.H. Brooks, R.P. Doerner, T.E. Evans, M.E. Fenstermacher, M. Groth, E.M. Hollmann, S. Krashennikov, C.J. Lasnier, M.A. Mahdavi, G.R. McKee, A. McLean, P.C. Stangeby, W.R. Wampler, J.G. Watkins, W.P. West, D.G. Whyte and C.P.C. Wong 337–339 (2005) 717
- Determination of the particle and energy fluxes in the JET far SOL during ELMs using the reciprocating probe diagnostic, C. Silva, B. Goncalves, C. Hidalgo, K. Ereints, A. Loarte, G. Matthews and M. Pedrosa 337–339 (2005) 722
- ELMs and the H-mode pedestal in NSTX, R. Maingi, S.A. Sabbagh, C.E. Bush, E.D. Fredrickson, J.E. Menard, D. Stutman, K. Tritz, M.G. Bell, R.E. Bell, J.A. Boedo, D.A. Gates, D.W. Johnson, R. Kaita, S.M. Kaye, H.W. Kugel, B.P. LeBlanc, D. Mueller, R. Raman, A.L. Roquemore, V.A. Soukhanovskii and T. Stevenson 337–339 (2005) 727
- Integrated exhaust control with divertor parameter feedback and pellet ELM pacemaking in ASDEX Upgrade, A. Kallenbach, P.T. Lang, R. Dux, C. Fuchs, A. Herrmann, H. Meister, V. Mertens, R. Neu, T. Pütterich, T. Zehetbauer and the ASDEX Upgrade Team 337–339 (2005) 732
- Langmuir probe measurements in the lower x -point vicinity of the ASDEX Upgrade divertor, M. Tsalas, N. Tsois, V. Rohde, J. Neuhauser and the ASDEX Upgrade Team 337–339 (2005) 751
- Simulation of tokamak armour erosion and plasma contamination at intense transient heat fluxes in ITER, I.S. Landman, B.N. Bazylev, I.E. Garkusha, A. Loarte, S.E. Pestchanyi and V.M. Safronov 337–339 (2005) 761
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N. Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- ELM-induced plasma transport in the DIII-D SOL, J.A. Boedo, D.L. Rudakov, E.M. Hollmann, R.A. Moyer, G.R. McKee, K. Burrell, T.E. Evans, A.W. Leonard, W.P. West, M.E. Fenstermacher, M. Groth, S.L. Allen, L. Zeng, G. Wang, J.G. Watkins and The DIII-D Team 337–339 (2005) 771
- Influence of ELMs on operation of ICRF antennas in ASDEX Upgrade, V.I. Bobkov, F. Braun, D.A. Hartmann, P. Lamalle, I. Monakhov, J.-M. Noterdaeme, P. Wouters, E. Würsching and ASDEX Upgrade Team 337–339 (2005) 776
- Effect of B-field dependent particle drifts on ELM behavior in the DIII-D boundary plasma, M.E. Fenstermacher, A.W. Leonard, G.D. Porter, J.A. Boedo, N.H. Brooks, D.S. Gray, M. Groth, E.M. Hollmann, C.J. Lasnier, T.W. Petrie and L. Zeng 337–339 (2005) 781
- Thermographic power accounting in MAST, F. Lott, A. Kirk, G.F.

- Counsell, J. Dowling, D. Taylor, T. Eich and A. Herrmann 337–339 (2005) 786
- Steady state heat exhaust in Tore Supra: operational safety and edge parameters, R. Mitteau and Tore Supra team 337–339 (2005) 795
- Study of plasma wall interactions in the long-pulse NB-heated discharges of JT-60U towards steady-state operation, H. Takenaga, N. Asakura, S. Higashijima, T. Nakano, H. Kubo, S. Konoshima, N. Oyama, A. Isayama, S. Ide, T. Fujita, Y. Miura and The JT-60 team 337–339 (2005) 802
- Overview of goals and performance of ITER and strategy for plasma–wall interaction investigation, M. Shimada, A.E. Costley, G. Federici, K. Ioki, A.S. Kukushkin, V. Mukhovatov, A. Polevoi and M. Sugihara 337–339 (2005) 808
- A new look at JET operation with Be as plasma facing material, A. Loarte, G. Saibene, R. Sartori, D.J. Campbell, P.J. Lomas, G.F. Matthews and EFDA-JET workprogramme collaborators 337–339 (2005) 816
- Experience gained from high heat flux actively cooled PFCs in Tore Supra, A. Grosman, P. Bayetti, C. Brosset, J. Bucalossi, J.J. Cordier, A. Durocher, F. Escourbiac, Ph. Ghendrih, D. Guilhem, J. Gunn, T. Loarer, M. Lipa, R. Mitteau, B. Pegourie, R. Reichle, J. Schlosser, E. Tsitrone and J.C. Vallet 337–339 (2005) 821
- Strongly radiating type-III ELMy H-mode in JET – an integrated scenario for ITER, J. Rapp, G.F. Matthews, P. Monier-Garbet, R. Sartori, Y. Corre, T. Eich, R. Felton, W. Fundamenski, C. Giroud, A. Huber, S. Jachmich, P. Morgan, M. O'Mullane, H.R. Koslowski, M. Stamp and contributors to the EFDA-JET work programme 337–339 (2005) 826
- High energy electron deposition within vertical ports, during lower hybrid current drive on Tore Supra, F. Saint-Laurent, G. Martin, V. Basiuk, E. Faudot, C. Grisolia, S. Heurax and M. Lipa 337–339 (2005) 831
- Redeposition of hydrocarbon layers in fusion devices, W. Jacob 337–339 (2005) 839
- Carbon erosion and a:C–H layer formation at ASDEX Upgrade, V. Rohde, M. Mayer, J. Likonen, R. Neu, T. Pütterich, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 847
- Plasma surface interaction with tungsten in ASDEX Upgrade, R. Dux, A. Herrmann, A. Kallenbach, R. Neu, J. Neuhauser, H. Maier, R. Pugno, T. Pütterich, V. Rohde and ASDEX Upgrade Team 337–339 (2005) 852
- Studies of a-C: D film inhibition by nitrogen injection in laboratory plasmas and divertors, F.L. Tabarés, D. Taffalla, V. Rohde, M. Stamp, G. Matthews, G. Esser, V. Philipps, R. Doerner and M. Baldwin 337–339 (2005) 867
- Effects of large area liquid lithium limiters on spherical torus plasmas, R. Kaita, R. Majeski, M. Boaz, P. Efthimion, G. Gettelfinger, T. Gray, D. Hoffman, S. Jardin, H. Kugel, P. Marfuta, T. Munsat, C. Neumeyer, S. Raftopoulos, V. Soukhanovskii, J. Spaleta, G. Taylor, J. Timberlake, R. Woolley, L. Zakharov, M. Finkenthal, D. Stutman, L. Delgado-Aparicio, R.P. Seraydarian, G. Antar, R. Doerner, S. Luckhardt, M. Baldwin, R.W. Conn, R. Maingi, M. Menon, R. Causey, D. Buchenauer, M. Ulrickson, B. Jones and D. Rodgers 337–339 (2005) 872
- High temperature erosion of beryllium, R.P. Doerner, M.J. Baldwin, S.I. Krashennnikov and K. Schmid 337–339 (2005) 877
- Dynamic transition between erosion and deposition on a tungsten surface exposed to edge plasmas containing carbon impurities, K. Ohya, T. Tanabe, A. Kirschner, T. Hirai, V. Philipps, M. Wada, T. Ohgo and N. Noda 337–339 (2005) 882
- Energy and fluence dependences of helium retention in stainless steel, Y. Nobuta, Y. Yamauchi, Y. Hirohata, T. Hino, N. Ashikawa, K. Nishimura, A. Sagara, S. Masuzaki, T. Ozaki, N. Noda, A. Komori, O. Motojima and LHD Experimental Group 337–339 (2005) 932
- Angular resolved energy distributions of low energy light ions reflected from a polycrystalline Mo surface, H. Yamaoka, Y. Matsumoto, M. Nishiura, K. Nishimura, M. Sasao and M. Wada 337–339 (2005) 942
- Impact of low energy helium irradiation on plasma facing metals, N. Yoshida, H. Iwakiri, K. Tokunaga and T. Baba 337–339 (2005) 946
- Formation of a surface alloy in the beryllium–tungsten system, A. Wiltner and Ch. Linsmeier 337–339 (2005) 951
- Formation of D inventories and structural modifications by deuterium bombardment of tungsten thin films, I. Bizyukov, K. Krieger, N. Azarenkov, S. Levchuk and Ch. Linsmeier 337–339 (2005) 965
- An extended formula for the energy spectrum of sputtered atoms from a material irradiated by light ions,

- T. Ono, Y. Aoki, T. Kawamura, T. Kenmotsu and Y. Yamamura 337–339 (2005) 975
- Deuterium-induced chemical erosion of carbon-metal layers, M. Balden, E. de Juan Pardo, I. Quintana, B. Ciecwiwa and J. Roth 337–339 (2005) 980
- Possible effects of RF field near ICRF antenna on density control during long pulse discharge in LHD, K. Saito, R. Kumazawa, T. Mutoh, T. Seki, T. Watari, Y. Nakamura, M. Sakamoto, N. Noda, T. Watanabe, M. Shoji, S. Masuzaki, S. Morita, M. Goto, Y. Torii, N. Takeuchi, F. Shimpō, G. Nomura, M. Yokota, A. Kato, Y. Zhao and LHD Experimental Group 337–339 (2005) 995
- Characterization of dust collected from NSTX and JT-60U, J.P. Sharpe, P.W. Humrickhouse, C.H. Skinner, the NSTX Team, T. Tanabe, K. Masaki, N. Miya, the JT-60U Team and A. Sagara 337–339 (2005) 1000
- Investigations of chemical erosion of carbon materials in hydrogen and deuterium low pressure plasmas, P. Starke, U. Fantz and M. Balden 337–339 (2005) 1005
- Hydrogen blister formation and cracking behavior for various tungsten materials, Y. Ueda, T. Funabiki, T. Shimada, K. Fukumoto, H. Kurishita and M. Nishikawa 337–339 (2005) 1010
- Incident-mass dependence of temperature-enhanced ion-induced sputtering in liquid metals, M.D. Coventry and D.N. Ruzic 337–339 (2005) 1015
- Modification of tungsten layers by arcing, M. Laux, W. Schneider, B. Jüttner, S. Lindig, M. Mayer, M. Balden, I. Beilis and B. Djakov 337–339 (2005) 1019
- Investigation of the high temperature erosion of nickel under 5keV neon irradiation, E. Vietzke and V. Philipps 337–339 (2005) 1024
- Divertor impurity sources; effects of hot surfaces and thin films on impurity production, M.F. Stamp, P. Andrew, S. Brezinsek, A. Huber and JET EFDA Contributors 337–339 (2005) 1038
- PSI modeling of liquid lithium divertors for the NSTX tokamak, J.N. Brooks, J.P. Allain, T.D. Rognlien and R. Maingi 337–339 (2005) 1053
- Identification of molecular carbon sources in the JET divertor by means of emission spectroscopy, S. Brezinsek, A. Pospieszczyk, M.F. Stamp, A. Meigs, A. Kirschner, A. Huber, Ph. Mertens and JET-EFDA contributors 337–339 (2005) 1058
- Hot spot effect on infrared spectral luminance emitted by carbon under plasma particles impact, E. Delchambre, R. Reichle, R. Mitteau, M. Misirlian and P. Roubin 337–339 (2005) 1069
- High-speed 2-D image measurement for plasma-wall interaction studies, N. Nishino, K. Takahashi, H. Kawazome, Y. Fukagawa, T. Mizuuchi, K. Kondo, F. Sano, K. Nagasaki, H. Okada, S. Kobayahi and S. Yamamoto 337–339 (2005) 1073
- Correlation of the intensity ratio of C₂/CH molecular bands with the flux ratio of C₂H₂/CH₄ particles, U. Fantz, S. Meir and ASDEX Upgrade Team 337–339 (2005) 1087
- A novel diagnostic for time-resolved spectroscopic argon and lithium density measurements, L. Schmitz, P. Calderoni, A. Ying and M.A. Abdou 337–339 (2005) 1096
- Exposure of metal mirrors in the scrape-off layer of TEXTOR, P. Wienhold, A. Litnovsky, V. Philipps, B. Schweer, G. Sergienko, P. Oelhafen, M. Ley, G. De Temmerman, W. Schneider, D. Hildebrandt, M. Laux, M. Rubel and B. Emmoth 337–339 (2005) 1116
- Plasma Properties (includes Plasma Disruption)**
- Simulation study on influence of chemically eroded higher hydrocarbons on SOL impurity transport and effect of dynamical material mixing on erosion/deposition of tungsten surfaces exposed to boundary plasmas, R. Kawakami and T. Mitani 337–339 (2005) 45
- ITER divertor performance in conditions of carbon re-erosion, A.S. Kukushkin, H.D. Pacher, D.P. Coster, G.W. Pacher and D. Reiter 337–339 (2005) 50
- OEDGE modeling of ¹³C deposition in the inner divertor of DIII-D, J.D. Elder, P.C. Stangeby, D.G. Whyte, S.L. Allen, A. McLean, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, C.J. Lasnier, S. Lisgo, D.L. Rudakov, W.R. Wampler, J.G. Watkins and W.P. West 337–339 (2005) 79
- OSM-EIRENE modeling of neutral pressures in the Alcator C-Mod divertor, S. Lisgo, P. Börner, C. Boswell, D. Elder, B. LaBombard, B. Lipschultz, C.S. Pitcher, D. Reiter, P.C. Stangeby, J.L. Terry and S. Wiesen 337–339 (2005) 139
- Local island divertor experiments on LHD, T. Morisaki, S. Masuzaki, A. Komori, N. Ohyabu, M. Kobayashi, Y. Feng, F. Sardei, K. Narihara, K. Tanaka, K. Ida, B.J. Peterson, M. Yoshinuma, N. Ashikawa, M. Emoto, H. Funaba, M. Goto, K. Ikeda, S. Inagaki, O. Kaneko, K. Kawahata, S. Kubo, J. Miyazawa, S. Morita, K.

- Nagaoka, Y. Nagayama, H. Nakanishi, K. Ohkubo, Y. Oka, M. Osakaabe, T. Shimozuma, M. Shoji, Y. Takeiri, S. Sakakibara, R. Sakamoto, K. Sato, K. Toi, K. Tsumori, K.Y. Watababe, H. Yamada, I. Yamada, Y. Yoshimura, O. Motojima and LHD Experimental Group 337–339 (2005) 154
- First results from the dynamic ergodic divertor at TEXTOR, M. Lehnen, S.S. Abdullaev, W. Biel, S. Brezinsek, K.H. Finken, D. Harting, M. von Hellermann, M. Jakubowski, R. Jaspers, M. Kobayashi, H.R. Koslowski, A. Krämer-Flecken, G. Matsunaga, A. Pospieszczyk, D. Reiter, T. Van Rompuy, U. Samm, O. Schmitz, G. Sergienko, B. Unterberg, R. Wolf, O. Zimmermann and the TEXTOR team 337–339 (2005) 171
- Observations of macroscopic oscillations of the detachment front for injection of H₂, He, and Ne into the simulated baffled divertor, A. Matsubara, T. Watanabe, T. Sugimoto, S. Sudo and K. Sato 337–339 (2005) 181
- Simulation of afterglow plasma evolution in an inertial fusion energy chamber, B.K. Frolov, A.Yu. Pigarov, S.I. Krasheninnikov, R.W. Petzoldt and D.T. Goodin 337–339 (2005) 206
- Variation in particle pumping due to changes in topology in high performance DIII-D plasmas, T.W. Petrie, N.H. Brooks, M.E. Fenstermacher, C.M. Greenfield, M. Groth, A.W. Hyatt, A.W. Leonard, M.A. Mahdavi, G.D. Porter, M.E. Rensink, M.J. Schaffer, M.R. Wade, J.G. Watkins, N.S. Wolf and The DIII-D Team 337–339 (2005) 216
- Modification of atomic physics rates due to nonlocal electron parallel heat transport in divertor plasmas, F. Allais, J.P. Matte, F. Alouani-Bibi, C.G. Kim, D.P. Stotler and T.D. Rognlien 337–339 (2005) 246
- Accounting of the power balance for neutral-beam heated H-mode plasmas in NSTX, S.F. Paul, R. Maingi, V. Soukhanovskii, S.M. Kaye, H.W. Kugel and The NSTX Research Team 337–339 (2005) 251
- Re-construction of detached divertor plasma conditions in DIII-D using spectroscopic and probe data, S. Ligo, P.C. Stangeby, J.D. Elder, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 256
- EDGE2D code simulations of SOL flows and in-out divertor asymmetries in JET, G.S. Kirnev, G. Corrigan, D. Coster, S.K. Erents, W. Fundamenski, G.F. Matthews and R.A. Pitts 337–339 (2005) 271
- Effect of drifts on the high Mach flow associated with the divertor detachment, K. Hoshino, A. Hatayama, R. Schneider and D.P. Coster 337–339 (2005) 276
- Spectroscopic measurements of plasma flow in the SOL in C-Mod, K. Marr, B. Lipschultz, B. LaBombard and J.L. Terry 337–339 (2005) 286
- Generation of toroidal rotation by gas puff. Simulations of MAST experiments with B2SOLPS5.0, V. Rozhansky, E. Kaveeva, S. Voskoboinikov, G. Counsell, A. Kirk, D. Coster and R. Schneider 337–339 (2005) 291
- Modelling and consequences of drift effects in the edge plasma of Alcator C-Mod, X. Bonnin, D. Coster, R. Schneider, D. Reiter, V. Rozhansky and S. Voskoboinikov 337–339 (2005) 301
- Effect of $B \times \nabla B$ direction on SOL energy transport in JET, W. Fundamenski, P. Andrew, K. Erents, A. Huber, G. Kirnev, G. Matthews, R. Pitts, V. Riccardo, S. Sipilä and EFDA JET contributors 337–339 (2005) 305
- Velocity fields of edge/Scrape-Off-Layer turbulence in Alcator C-Mod, J.L. Terry, S.J. Zweben, O. Grulke, M.J. Greenwald and B. LaBombard 337–339 (2005) 322
- Simulation of plasma fluxes to material surfaces with self-consistent edge turbulence and transport for tokamaks, T.D. Rognlien, M.V. Umansky, X.Q. Xu, R.H. Cohen and L.L. LoDestro 337–339 (2005) 327
- Edge fluctuation studies in Heliotron J, T. Mizuuchi, V.V. Chechkin, K. Ohashi, E.L. Sorokovoy, A.V. Chechkin, V.Yu. Gonchar, K. Takahashi, S. Kobayashi, K. Nagasaki, H. Okada, S. Yamamoto, F. Sano, K. Kondo, N. Nishino, H. Kawazome, H. Shidara, S. Kaneko, Y. Fukagawa, Y. Morita, S. Nakazawa, S. Nishio, S. Tsuboi and M. Yamada 337–339 (2005) 332
- Plasma structures and transport in the SOL of the T-10 tokamak, G.S. Kirnev, V.P. Budaev, S.A. Grashin, E.V. Gerasimov and L.N. Khimchenko 337–339 (2005) 352
- Benchmarking Tokamak edge modelling codes, D.P. Coster, X. Bonnin, G. Corrigan, G.S. Kirnev, G. Matthews, J. Spence and contributors to the EFDA-JET work programme 337–339 (2005) 366
- Multi-ion fluid simulation of tokamak edge plasmas including non-diffusive anomalous cross-field transport, A.Yu. Pigarov, E.M. Hollmann, S.I. Krasheninnikov, T.D. Rognlien and W.P. West 337–339 (2005) 371

- Statistical description of the radial structure of turbulence in the JET plasma boundary region, B. Gonçalves, C. Hidalgo, C. Silva, M.A. Pedrosa and K. Ereints 337–339 (2005) 376
- Multi-machine comparisons of H-mode separatrix densities and edge profile behaviour in the ITPA SOL and Divertor Physics Topical Group, A. Kallenbach, N. Asakura, A. Kirk, A. Korotkov, M.A. Mahdavi, D. Mossessian and G.D. Porter 337–339 (2005) 381
- Simple Core-SOL-Divertor model and its application to operational space of HT-7U, R. Hiwatari, Y. Kuzuyama, A. Hatayama, K. Okano, Y. Asaoka, S. Zhu and Y. Tomita 337–339 (2005) 386
- Comparison of plasma parameters between QH and ELMing phases of the same discharges, C.J. Lasniera, W.P. West, K.H. Burrell, J.S. deGrassie, E.J. Doyle and T.H. Osborne 337–339 (2005) 391
- Comparison of limiter and emissive electrode bias on the tokamak ISTTOK, C. Silva, I. Nedzelskiy, H. Figueiredo, R.M.O. Galvão, J.A.C. Cabral and C.A.F. Varandas 337–339 (2005) 415
- Observations of fast ion loss to the plasma facing wall during quiescent H-modes on DIII-D, W.P. West, C.J. Lasnier, J.G. Watkins, J.S. deGrassie, W. Heidbrink, K.H. Burrell and F.E. Cecil 337–339 (2005) 420
- Development of the plasma operational regime in the large helical device by the various wall conditioning methods, K. Nishimura, N. Ashikawa, S. Masuzaki, J. Miyazawa, A. Sagara, M. Goto, B.J. Peterson, A. Komori, N. Noda, K. Ida, O. Kaneko, K. Kawahata, T. Kobuchi, S. Kubo, S. Morita, M. Osakabe, S. Sakakibara, R. Sakamoto, K. Sato, T. Shimozuma, Y. Takeiri, K. Tanaka, O. Motojima and LHD Experimental Group 337–339 (2005) 431
- Fuelling efficiency of hydrocarbons in TJ-II plasmas, I. Garcia-Cortés, F.L. Tabarés, D. Tafalla, A. Hidalgo, J.M. Carmona, K.J. McCarthy and F. Medina 337–339 (2005) 441
- Development of ICRF wall conditioning technique on divertor-type tokamaks ASDEX Upgrade and JET, A. Lyssoivan, D.A. Hartmann, J.-M. Noterdaeme, R. Koch, V. Bobkov, T. Blackman, F. Braun, M. Cox, P. de Vries, H.G. Esser, H.-U. Fahrbach, J. Gafert, E. Gauthier, O. Gehre, M. Graham, G. Haas, A. Huber, K. Lawson, P.J. Lomas, M. Mantsinen, G. Matthews, M.-L. Mayoral, A. Meigs, Ph. Mertens, V. Mertens, I. Monakhov, J. Neuhauser, V. Philipps, V. Rohde, M. Santala, W. Suttrop, A. Walden, D.V. Eester, F. Wesner and ASDEX Upgrade Team and JET EFDA Contributors 337–339 (2005) 456
- Modeling of three-dimensional neutral transport in tandem mirror plasmas using a Monte-Carlo code, Y. Nakashima, Y. Higashizono, T. Ohki, M. Shoji, S. Kobayashi, Y. Kubota, M. Yoshikawa, M.K. Islam, K. Watanabe, T. Ogita, M. Yamada, R. Murakami and T. Cho 337–339 (2005) 466
- Pumping capability and particle balance in W7-X: a self-consistent 3D study, D. Sharma, Y. Feng, F. Sardei, J. Kisslinger, H. Grote, P. Grigull and H. Renner 337–339 (2005) 471
- Divertor regimes in NSTX, V.A. Soukhanovskii, R. Maingi, A.L. Roquemore, J. Boedo, C. Bush, R. Kaita, H.W. Kugel, B.P. LeBlanc, S.F. Paul, G.D. Porter, N.S. Wolf and NSTX Research Team 337–339 (2005) 475
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- Local effects of gas fuelling and their impact on transport processes in the plasma edge of the tokamak TEXTOR, B. Unterberg, S. Brezinsek, G. Sergienko, C.C. Chu, P. Dumortier, J.D. Hey, D. Kalupin, A. Kreter, M. Lehnen, A.M. Messiaen, Ph. Mertens, A. Pospieszczyk, U. Samm, B. Schweer, M.Z. Tokar, G. Van Wassenhove and the TEXTOR-team 337–339 (2005) 515
- Neutral pressure behavior for diverted discharges in the Wendelstein 7-AS Stellarator, K. McCormick, P. Grigull, R. Burhenn, H. Ehmler, Y. Feng, L. Giannone, G. Haas, F. Sardei and The NBI-, ECRH- and W7-AS Teams 337–339 (2005) 520
- The response of the Tore Supra edge plasma to supersonic pulsed gas injection, R. Pánek, J.P. Gunn, J. Bucalossi, I. Đuran, A. Geraud, M. Hron, T. Loarer, B. Pégourié, J. Stöckel and E. Tsitrone 337–339 (2005) 530
- Fuelling of QH-mode plasmas on DIII-D with pellets and gas, L.R. Baylor, T.C. Jernigan, K.H. Burrell, S.K. Combs, E.J. Doyle, P. Gohil, C.M. Greenfield, C.J. Lasnier and W.P. West 337–339 (2005) 535
- Tritium recovery in ITER by radiative plasma terminations, D.G. Whyte and J.W. Davis 337–339 (2005) 560

- Edge localized modes control: experiment and theory, M. Becoulet, G. Huysmans, P. Thomas, E. Joffrin, F. Rimini, P. Monier-Garbet, A. Grosman, P. Ghendrih, V. Parail, P. Lomas, G. Matthews, H. Wilson, M. Gryaznevich, G. Counsell, A. Loarte, G. Saibene, R. Sartori, A. Leonard, P. Snyder, T. Evans, P. Gohil, R. Moyer, Y. Kamada, N. Oyama, T. Hatae, K. Kamiya, A. Degeling, Y. Martin, J. Lister, J. Rapp, C. Perez, P. Lang, A. Chankin, T. Eich, A. Sips, J. Stober, L. Horton, A. Kallenbach, W. Suttrop, S. Saarelma, S. Cowley, J. Lönnroth, M. Shimada, A. Polevoi and G. Federici 337–339 (2005) 677
- Suppression of large edge localized modes in high confinement DIII-D plasmas with a stochastic magnetic boundary, T.E. Evans, R.A. Moyer, J.G. Watkins, P.R. Thomas, T.H. Osborne, J.A. Boedo, M.E. Fenstermacher, K.H. Finken, R.J. Groebner, M. Groth, J. Harris, G.L. Jackson, R.J. La Haye, C.J. Lasnier, M.J. Schaffer, G. Wang and L. Zeng 337–339 (2005) 691
- Energy flow during disruptions in JET, J.I. Paley, P. Andrew, S.C. Cowley, W. Fundamenski, A. Huber and JET EFDA Contributors 337–339 (2005) 702
- Parallel and radial transport of ELM plasma in the SOL and divertor of JT-60U, N. Asakura, M. Takechi, N. Oyama and T. Nakano 337–339 (2005) 712
- Far scrape-off layer and near wall plasma studies in DIII-D, D.L. Rudakov, J.A. Boedo, R.A. Moyer, N.H. Brooks, R.P. Doerner, T.E. Evans, M.E. Fenstermacher, M. Groth, E.M. Hollmann, S. Krasheninnikov, C.J. Lasnier, M.A. Mahdavi, G.R. McKee, A. McLean, P.C. Stangeby, W.R. Wampler, J.G. Watkins, W.P. West, D.G. Whyte and C.P.C. Wong 337–339 (2005) 717
- Determination of the particle and energy fluxes in the JET far SOL during ELMs using the reciprocating probe diagnostic, C. Silva, B. Gonçalves, C. Hidalgo, K. Erents, A. Loarte, G. Matthews and M. Pedrosa 337–339 (2005) 722
- ELMs and the H-mode pedestal in NSTX, R. Maingi, S.A. Sabbagh, C.E. Bush, E.D. Fredrickson, J.E. Menard, D. Stutman, K. Tritz, M.G. Bell, R.E. Bell, J.A. Boedo, D.A. Gates, D.W. Johnson, R. Kaita, S.M. Kaye, H.W. Kugel, B.P. LeBlanc, D. Mueller, R. Raman, A.L. Roquemore, V.A. Soukhanovskii and T. Stevenson 337–339 (2005) 727
- Direct measurement of the impurity dynamics during an ELM cycle, M.R. Wade, K.H. Burrell, J.T. Hogan, A.W. Leonard, T.H. Osborne, P. Snyder and D. Coster 337–339 (2005) 737
- SOL and pedestal density profile evolution during DIII-D ELMy and ELM-suppressed H-mode operation, L. Zeng, G. Wang, E.J. Doyle, T.L. Rhodes, W.A. Peebles, M.E. Fenstermacher, T.E. Evans and R.A. Moyer 337–339 (2005) 742
- ELMs and strike point jumps, E.R. Solano, S. Jachmich, F. Villone, N. Hawkes, Y. Corre, R.A. Pitts, A. Loarte, B. Alper, K. Guenther, A. Koroktov, M. Stamp, P. Andrew, S.A. Arshad, J. Conboy, T. Bolzonella, E. Rachlew, M. Kempenaars, A. Cenedese, D. Testa and JET EFDA contributors 337–339 (2005) 747
- Langmuir probe measurements in the lower x -point vicinity of the ASDEX Upgrade divertor, M. Tsalas, N. Tsois, V. Rohde, J. Neuhauser and the ASDEX Upgrade Team 337–339 (2005) 751
- Radiation distribution and energy balance during type-I ELMs in ASDEX Upgrade, J.C. Fuchs, T. Eich, A. Herrmann, K.F. Mast and The ASDEX Upgrade Team 337–339 (2005) 756
- ELM-induced plasma transport in the DIII-D SOL, J.A. Boedo, D.L. Rudakov, E.M. Hollmann, R.A. Moyer, G.R. McKee, K. Burrell, T.E. Evans, A.W. Leonard, W.P. West, M.E. Fenstermacher, M. Groth, S.L. Allen, L. Zeng, G. Wang, J.G. Watkins and The DIII-D Team 337–339 (2005) 771
- Influence of ELMs on operation of ICRF antennas in ASDEX Upgrade, V.I. Bobkov, F. Braun, D.A. Hartmann, P. Lamalle, I. Monakhov, J.-M. Noterdaeme, P. Wouters, E. Würsching and ASDEX Upgrade Team 337–339 (2005) 776
- Effect of B-field dependent particle drifts on ELM behavior in the DIII-D boundary plasma, M.E. Fenstermacher, A.W. Leonard, G.D. Porter, J.A. Boedo, N.H. Brooks, D.S. Gray, M. Groth, E.M. Hollmann, C.J. Lasnier, T.W. Petrie and L. Zeng 337–339 (2005) 781
- Study of plasma wall interactions in the long-pulse NB-heated discharges of JT-60U towards steady-state operation, H. Takenaga, N. Asakura, S. Higashijima, T. Nakano, H. Kubo, S. Konoshima, N. Oyama, A. Isayama, S. Ide, T. Fujita, Y. Miura and The JT-60 team 337–339 (2005) 802

- Overview of goals and performance of ITER and strategy for plasma-wall interaction investigation, M. Shimada, A.E. Costley, G. Federici, K. Ioki, A.S. Kukushkin, V. Mukhovatov, A. Polevoi and M. Sugihara 337–339 (2005) 808
- Strongly radiating type-III ELMy H-mode in JET – an integrated scenario for ITER, J. Rapp, G.F. Matthews, P. Monier-Garbet, R. Sartori, Y. Corre, T. Eich, R. Felton, W. Fundamenski, C. Giroud, A. Huber, S. Jachmich, P. Morgan, M. O’Mullane, H.R. Koslowski, M. Stamp and contributors to the EFDA-JET work programme 337–339 (2005) 826
- High energy electron deposition within vertical ports, during lower hybrid current drive on Tore Supra, F. Saint-Laurent, G. Martin, V. Basiuk, E. Faudot, C. Grisolia, S. Heurax and M. Lipa 337–339 (2005) 831
- Long-pulse discharges by synergy of LHW and IBW heating in the HT-7 tokamak, X. Gao, J. Li, Y. Yang, J.K. Xie, J.R. Luo, J.Y. Zhao, X.Z. Gong, L.Q. Hu, X.D. Zhang, Y.J. Shi, B.N. Wan, K. Tanaka, R. Sakamoto, Y.P. Zhao, G.L. Kuang, J.S. Hu, M. Asif, Y.X. Jie, H.Q. Liu, J. Liu, Q. Xu, L. Gao and The HT-7 Team 337–339 (2005) 835
- Investigation of the role of temperature fluctuations on spectral line shapes, Y. Marandet, H. Capes, L. Godbert-Mouret, M. Koubiti and R. Stamm 337–339 (2005) 1092
- Neutral helium line emission for edge plasma conditions, F.B. Rosmej, R. Stamm, S. Fritzsche, H. Capes, M. Koubiti, Y. Marandet, V.S. Lisitsa, N. Ohno, S. Takamura and D. Nishijima 337–339 (2005) 1101
- Ion sensitive probe measurement in the linear plasma device PSI-2, N. Ezumi, Zh. Kiss’ovski, W. Bohmeyer and G. Fussmann 337–339 (2005) 1106
- Investigation of Mach probe geometry effects in weakly magnetized plasmas, T. Shikama, S. Kado, A. Okamoto, S. Kajita and S. Tanaka 337–339 (2005) 1077
- Powder Processes and Products**
- Experimental study of different carbon dust growth mechanisms, C. Arnas, C. Dominique, P. Roubin, C. Martin, C. Laffon, P. Parent, C. Brosset and B. Pégourié 337–339 (2005) 69
- Radiation Effects: Atomic Defects**
- Composition and hydrogen isotope retention analysis of co-deposited C/Be layers, M.J. Baldwin, K. Schmid, R.P. Doerner, A. Wiltner, R. Seraydarian and Ch. Linsmeier 337–339 (2005) 590
- Effects of background gas impurities during D⁺ irradiation on D trapping in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 337–339 (2005) 629
- Radiation Effects: Physical Properties**
- Radiation distribution and energy balance during type-I ELMs in ASDEX Upgrade, J.C. Fuchs, T. Eich, A. Herrmann, K.F. Mast and The ASDEX Upgrade Team 337–339 (2005) 756
- Radiation Sources**
- Radiation distribution and energy balance during type-I ELMs in ASDEX Upgrade, J.C. Fuchs, T. Eich, A. Herrmann, K.F. Mast and The ASDEX Upgrade Team 337–339 (2005) 756
- Neutral helium line emission for edge plasma conditions, F.B. Rosmej, R. Stamm, S. Fritzsche, H. Capes, M. Koubiti, Y. Marandet, V.S. Lisitsa, N. Ohno, S. Takamura and D. Nishijima 337–339 (2005) 1101
- Redeposition**
- Tungsten redistribution patterns in ASDEX Upgrade, K. Krieger, J. Likonen, M. Mayer, R. Pugno, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 10
- Experimental observations and modelling of carbon transport in the inner divertor of JET, A. Kirschner, V. Philipps, D.P. Coster, S.K. Erements, H.G. Esser, G. Federici, A.S. Kukushkin, A. Loarte, G.F. Matthews, J. Roth, U. Samm and JET EFDA Contributors 337–339 (2005) 17
- ¹³C transport studies in L-mode divertor plasmas on DIII-D, S.L. Allen, W.R. Wampler, A.G. McLean, D.G. Whyte, W.P. West, P.C. Stangeby, N.H. Brooks, D.L. Rudakov, V. Phillips, M. Rubel, G.F. Matthews, A. Nagy, R. Ellis and A.S. Bozek 337–339 (2005) 30
- Carbon dust formation from re-deposited layers in high-density hydrogen/helium plasmas in the NAGDIS-II device, N. Ohno, Y. Kobayashi, T. Sugimoto and S. Takamura 337–339 (2005) 35
- Modelling of deposition of hydrocarbon films underneath the divertor and in the pumping ducts of ITER, G. Federici, M. Mayer, G. Strohmayer, V. Chuyanov and C. Day 337–339 (2005) 40

- Studies on ^{13}C deposition in ASDEX Upgrade, E. Vainonen-Ahlgren, J. Likonen, T. Renvall, V. Rohde, R. Neu, M. Mayer, R. Pugno, K. Krieger and ASDEX Upgrade Team 337–339 (2005) 55
- Beryllium accumulation at the inner divertor of JET, J. Likonen, E. Vainonen-Ahlgren, J.P. Coad, R. Zilliacus, T. Renvall, D.E. Hole, M. Rubel, K. Arstila, G.F. Matthews, M. Stamp and JET-EFDA Contributors 337–339 (2005) 60
- Effect of plasma configuration on carbon migration measured in the inner divertor of JET using quartz microbalance, H.G. Esser, V. Philipps, M. Freisinger, G.F. Matthews, J.P. Coad, G.F. Neill and JET EFDA Contributors 337–339 (2005) 84
- Transport and deposition of injected hydrocarbons in plasma generator PSI-2, W. Bohmeyer, D. Naujoks, A. Markin, I. Arkhipov, B. Koch, D. Schröder and G. Fussmann 337–339 (2005) 89
- Carbon erosion and deposition on the ASDEX Upgrade divertor tiles, M. Mayer, V. Rohde, J. Likonen, E. Vainonen-Ahlgren, K. Krieger, X. Gong, J. Chen and ASDEX Upgrade Team 337–339 (2005) 119
- Measurements of carbon, deuterium and boron deposition in DIII-D, W.R. Wampler, S.L. Allen, A.G. McLean and W.P. West 337–339 (2005) 134
- Modeling of parasitic plasma under the divertor roof baffle, K. Matyash, R. Schneider, X. Bonnin, D. Coster, V. Rohde and H. Kersten 337–339 (2005) 237
- The effect of co-deposition of hydrogen and metals on wall pumping in long duration plasma in TRIAM-1M, M. Miyamoto, M. Tokitani, K. Tokunaga, T. Fujiwara, N. Yoshida, M. Sakamoto, H. Zushi, S. Nagata, K. Ono and TRIAM group 337–339 (2005) 436
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- Laser desorption of deuterium retained in re-deposited carbon layers at TEXTOR and JET, B. Schweer, A. Huber, G. Sergienko, V. Philipps, F. Irrek, H.G. Esser, U. Samm, M. Kempenaars, M. Stamp, C. Gowers and D. Richards 337–339 (2005) 570
- Hydrogen retention in divertor tiles used in JT-60 for hydrogen discharge period, Y. Hirohata, T. Shibahara, T. Tanabe, T. Arai, Y. Gotoh, Y. Oya, H. Yoshida, Y. Morimoto, J. Yagyū, K. Masaki, K. Okuno, T. Hino and N. Miya 337–339 (2005) 609
- Characterisation of flakes generated in JET after DD and DT plasma operations, N. Bekris, J.P. Coad, R.-D. Penzhorn, S. Knipe, L. Doerr, R. Rolli and W. Nägele 337–339 (2005) 659
- Deuterium concentration in deposited carbon layers in Tore Supra, C. Brosset, H. Khodja and Tore Supra team 337–339 (2005) 664
- Redeposition of hydrocarbon layers in fusion devices, W. Jacob 337–339 (2005) 839
- Carbon erosion and a-C-H layer formation at ASDEX Upgrade, V. Rohde, M. Mayer, J. Likonen, R. Neu, T. Pütterich, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 847
- Studies of a-C: D film inhibition by nitrogen injection in laboratory plasmas and divertors, F.L. Tabarés, D. Taffalla, V. Rohde, M. Stamp, G. Matthews, G. Esser, V. Philipps, R. Doerner and M. Baldwin 337–339 (2005) 867
- Dynamic transition between erosion and deposition on a tungsten surface exposed to edge plasmas containing carbon impurities, K. Ohya, T. Tanabe, A. Kirschner, T. Hirai, V. Philipps, M. Wada, T. Ohgo and N. Noda 337–339 (2005) 882
- Thermal behaviour of redeposited layer under high heat flux exposure, E. Gauthier, S. Dumas, J. Matheus, M. Missirlan, Y. Corre, L. Nicolas, P. Yala, P. Coad, P. Andrew, S. Cox and the JET-EFDA contributors 337–339 (2005) 960
- Flux dependence of carbon erosion and implication for ITER, J. Roth, A. Kirschner, W. Bohmeyer, S. Brezinsek, A. Cambe, E. Casarotto, R. Doerner, E. Gauthier, G. Federici, S. Higashijima, J. Hogan, A. Kallenbach, H. Kubo, J.M. Layet, T. Nakano, V. Philipps, A. Pospieszczyk, R. Preuss, R. Pugno, R. Ruggiéri, B. Schweer, G. Sergienko and M. Stamp 337–339 (2005) 970
- Deuterium-induced chemical erosion of carbon-metal layers, M. Balden, E. de Juan Pardo, I. Quintana, B. Ciecwiwa and J. Roth 337–339 (2005) 980
- Carbon chemical erosion in H-mode discharges in ASDEX Upgrade divertor IIb: flux dependence and local redeposition, R. Pugno, K. Krieger, A. Kirschner, A. Kallenbach, D.P. Coster, R. Dux, U. Fantz, J. Likonen, H.W. Müller, J. Neuhauser, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 985

- Divertor impurity sources; effects of hot surfaces and thin films on impurity production, M.F. Stamp, P. Andrew, S. Brezinsek, A. Huber and JET EFDA Contributors 337–339 (2005) 1038
- Modeling and analysis of mixed-material surface evolution and sputtering, A.M. Yacout and A. Hassanein 337–339 (2005) 1048
- Identification of molecular carbon sources in the JET divertor by means of emission spectroscopy, S. Brezinsek, A. Pospieszczyk, M.F. Stamp, A. Meigs, A. Kirschner, A. Huber, Ph. Mertens and JET-EFDA contributors 337–339 (2005) 1058
- Hot spot effect on infrared spectral luminance emitted by carbon under plasma particles impact, E. Delchambre, R. Reichle, R. Mitteau, M. Misirlian and P. Roubin 337–339 (2005) 1069
- Safety of Nuclear Reactors and Components**
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- Steady state heat exhaust in Tore Supra: operational safety and edge parameters, R. Mitteau and Tore Supra team 337–339 (2005) 795
- Silicon and Silicon Compounds**
- Measured signatures of low energy, physical sputtering in the line shape of neutral carbon emission, N.H. Brooks, R.C. Isler, D.G. Whyte, M.E. Fenstermacher, R.J. Groebner, P.C. Stangeby, W.W. Heidbrink, G.L. Jackson, M.A. Mahdavi, W.P. West and The DIII-D Team 337–339 (2005) 227
- Dynamic hydrogen isotope behavior and its chemical states in SiC by XPS and TDS technique, Y. Oya, Y. Onishi, H. Kodama, K. Okuno and S. Tanaka 337–339 (2005) 595
- An extended formula for the energy spectrum of sputtered atoms from a material irradiated by light ions, T. Ono, Y. Aoki, T. Kawamura, T. Kenmotsu and Y. Yamamura 337–339 (2005) 975
- Molecular dynamics modeling of deuterium in liquid lithium surfaces, H.-T. Qiu and D.N. Ruzic 337–339 (2005) 1029
- Steels, Austenitic**
- Increased recombination of CH₃ radicals on stainless steel, A.E. Gorodetsky, R.Kh. Zalavutdinov, A.P. Zakharov, S.P. Vnukov, I.G. Varshavskaya, A.N. Makhankov, I.V. Mazul and G. Federici 337–339 (2005) 892
- Energy and fluence dependences of helium retention in stainless steel, Y. Nobuta, Y. Yamauchi, Y. Hirohata, T. Hino, N. Ashikawa, K. Nishimura, A. Sagara, S. Masuzaki, T. Ozaki, N. Noda, A. Komori, O. Motojima and LHD Experimental Group 337–339 (2005) 932
- Superconductors**
- Long-pulse discharges by synergy of LHW and IBW heating in the HT-7 tokamak, X. Gao, J. Li, Y. Yang, J.K. Xie, J.R. Luo, J.Y. Zhao, X.Z. Gong, L.Q. Hu, X.D. Zhang, Y.J. Shi, B.N. Wan, K. Tanaka, R. Sakamoto, Y.P. Zhao, G.L. Kuang, J.S. Hu, M. Asif, Y.X. Jie, H.Q. Liu, J. Liu, Q. Xu, L. Gao and The HT-7 Team 337–339 (2005) 835
- Surface Effects**
- Tungsten redistribution patterns in ASDEX Upgrade, K. Krieger, J. Likonen, M. Mayer, R. Pugno, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 10
- Beryllium accumulation at the inner divertor of JET, J. Likonen, E. Vainonen-Ahlgren, J.P. Coad, R. Zilliacus, T. Renvall, D.E. Hole, M. Rubel, K. Arstila, G.F. Matthews, M. Stamp and JET-EFDA Contributors 337–339 (2005) 60
- Experimental study of different carbon dust growth mechanisms, C. Arnas, C. Dominique, P. Roubin, C. Martin, C. Laffon, P. Parent, C. Brosset and B. Pégourié 337–339 (2005) 69
- Chemical erosion of DIII-D lower divertor tiles, G.M. Wright, A.A. Haasz, J.W. Davis and R.G. Macaulay-Newcombe 337–339 (2005) 74
- Effect of plasma configuration on carbon migration measured in the inner divertor of JET using quartz microbalance, H.G. Esser, V. Philipps, M. Freisinger, G.F. Matthews, J.P. Coad, G.F. Neill and JET EFDA Contributors 337–339 (2005) 84
- Model development and analysis of temperature-dependent lithium sputtering and sputtered Li⁺ transport for tokamak plasma-facing applications, J.P. Allain, J.N. Brooks, D.A. Alman and L.E. Gonzalez 337–339 (2005) 94
- Outer divertor target deposited layers during reversed magnetic field operation in JET, P. Andrew, J.P. Coad, Y. Corre, T. Eich, A. Herrmann, G.F. Matthews, J.I. Paley, L. Pickworth, R.A. Pitts, M.F. Stamp and JET EFDA Contributors 337–339 (2005) 99

- Carbon erosion and deposition on the ASDEX Upgrade divertor tiles, M. Mayer, V. Rohde, J. Likonen, E. Vainonen-Ahlgren, K. Krieger, X. Gong, J. Chen and ASDEX Upgrade Team 337–339 (2005) 119
- DIVIMP modeling of the toroidally symmetrical injection of $^{13}\text{CH}_4$ into the upper SOL of DIII-D, A.G. McLean, J.A. Boedo, J.D. Elder, P.C. Stangeby, S.L. Allen, N.H. Brooks, M.E. Fenstermacher, M. Groth, S. Lisgo, A. Nagy, D.L. Rudakov, W.R. Wampler, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 124
- Time resolved deposition measurements in NSTX, C.H. Skinner, H. Kugel, A.L. Roquemore, J. Hogan, W.R. Wampler and the NSTX team 337–339 (2005) 129
- Measured signatures of low energy, physical sputtering in the line shape of neutral carbon emission, N.H. Brooks, R.C. Isler, D.G. Whyte, M.E. Fenstermacher, R.J. Groebner, P.C. Stangeby, W.W. Heidbrink, G.L. Jackson, M.A. Mahdavi, W.P. West and The DIII-D Team 337–339 (2005) 227
- Modeling of parasitic plasma under the divertor roof baffle, K. Matyash, R. Schneider, X. Bonnin, D. Coster, V. Rohde and H. Kersten 337–339 (2005) 237
- Spectroscopic measurements of plasma flow in the SOL in C-Mod, K. Marr, B. Lipschultz, B. LaBombard and J.L. Terry 337–339 (2005) 286
- Hydrogen absorption capability of a niobium panel for pumping neutral atoms in divertor region, Y. Nakamura, A.I. Livshits, Y. Nakahara, Y. Hatano, A. Busnyuk and N. Ohyabu 337–339 (2005) 461
- Divertor regimes in NSTX, V.A. Soukhanovskii, R. Maingi, A.L. Roquemore, J. Boedo, C. Bush, R. Kaita, H.W. Kugel, B.P. LeBlanc, S.F. Paul, G.D. Porter, N.S. Wolf and NSTX Research Team 337–339 (2005) 475
- On the lifetime of wall conditioning layers, H. Maier, K. Schmid and W. Eckstein 337–339 (2005) 480
- Development of NSTX particle control techniques, H.W. Kugel, R. Maingi, M. Bell, D. Gates, K. Hill, B. LeBlanc, D. Mueller, R. Kaita, S. Paul, S. Sabbagh, C.H. Skinner, V. Soukhanovskii, B. Stratton and R. Raman 337–339 (2005) 495
- Thermal wall load control using fast gas puffing in the TPE-RX reversed-field pinch, H. Sakakita, Y. Yagi, H. Koguchi, Y. Hirano and T. Shimada 337–339 (2005) 505
- Particle control issues of a compact stellarator with external vacuum vessel, P. Mioduszewski and the QPS Group 337–339 (2005) 525
- Comparison of deuterium and hydrogen experiments in the Sustained Spheromak Physics Experiment, R.D. Wood, D.N. Hill, E.B. Hooper, H.S. McLean, D. Ryutov and S. Woodruff 337–339 (2005) 548
- Fuel removal from bumper limiter tiles by using a pulsed excimer laser, B. Emmoth, S. Khartsev, A. Pisarev, A. Grishin, U. Karlsson, A. Litnovsky, M. Rubel and P. Wienhold 337–339 (2005) 639
- Tungsten erosion under plasma heat loads typical for ITER type I ELMs and disruptions, I.E. Garkusha, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.S. Landman, V.A. Makhilaj, A.K. Marchenko, D.G. Solyakov, V.I. Tereshin, S.A. Trubchaninov and A.V. Tsarenko 337–339 (2005) 707
- Simulation of tokamak armour erosion and plasma contamination at intense transient heat fluxes in ITER, I.S. Landman, B.N. Bazylev, I.E. Garkusha, A. Loarte, S.E. Pestchanyi and V.M. Safronov 337–339 (2005) 761
- Influence of ELMs on operation of ICRF antennas in ASDEX Upgrade, V.I. Bobkov, F. Braun, D.A. Hartmann, P. Lamalle, I. Monakhov, J.-M. Noterdaeme, P. Wouters, E. Würsching and ASDEX Upgrade Team 337–339 (2005) 776
- Thermographic power accounting in MAST, F. Lott, A. Kirk, G.F. Counsell, J. Dowling, D. Taylor, T. Eich and A. Herrmann 337–339 (2005) 786
- Modelling of thermal shock experiments of carbon based materials in JUDITH, O.V. Ogorodnikova, S. Pestchanyi, Y. Koza and J. Linke 337–339 (2005) 791
- Redeposition of hydrocarbon layers in fusion devices, W. Jacob 337–339 (2005) 839
- Plasma surface interaction with tungsten in ASDEX Upgrade, R. Dux, A. Herrmann, A. Kallenbach, R. Neu, J. Neuhauser, H. Maier, R. Pugno, T. Pütterich, V. Rohde and ASDEX Upgrade Team 337–339 (2005) 852
- Low-energy tritium ion erosion of graphite, R.G. Macaulay-Newcombe, A.A. Haasz and J.W. Davis 337–339 (2005) 857
- Influence of beryllium plasma seeding on the erosion of carbon, K. Schmid, M. Baldwin and R. Doerner 337–339 (2005) 862
- High temperature erosion of beryllium, R.P. Doerner, M.J. Baldwin, S.I. Krashenninnikov and K. Schmid 337–339 (2005) 877
- Dynamic transition between erosion and deposition on a tungsten surface exposed to edge plasmas containing carbon impurities, K. Ohya, T. Tanabe, A. Kirschner, T. Hirai,

- V. Philipps, M. Wada, T. Ohgo and N. Noda 337–339 (2005) 882
- B blister formation and deuterium retention on tungsten exposed to low energy and high flux deuterium plasma, K. Tokunaga, M.J. Baldwin, R.P. Doerner, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 337–339 (2005) 887
- Increased recombination of CH₃ radicals on stainless steel, A.E. Gorodetsky, R.Kh. Zalavutdinov, A.P. Zakharov, S.P. Vnukov, I.G. Varshavskaya, A.N. Makhankov, I.V. Mazul and G. Federici 337–339 (2005) 892
- Thermal properties of plasma exposed carbon and heat flux calculations on a spatial scale of a few microns, A. Herrmann 337–339 (2005) 907
- Molecular dynamics simulation of Li surface erosion and bubble formation, Z. Insepov and A. Hassanein 337–339 (2005) 912
- Experimental investigations of castellated monoblock structures in TEXTOR, A. Litnovsky, V. Philipps, P. Wienhold, G. Sergienko, B. Emmoth, M. Rubel, U. Breuer and E. Wessel 337–339 (2005) 917
- Measurements of chemical erosion of ATJ graphite by low energy D₂⁺ impact, F.W. Meyer, H.F. Krause and L.I. Vergara 337–339 (2005) 922
- Formation of D inventories and structural modifications by deuterium bombardment of tungsten thin films, I. Bizyukov, K. Krieger, N. Azarenkov, S. Levchuk and Ch. Linsmeier 337–339 (2005) 965
- Deuterium-induced chemical erosion of carbon-metal layers, M. Balden, E. de Juan Pardo, I. Quintana, B. Cieciva and J. Roth 337–339 (2005) 980
- Carbon chemical erosion in H-mode discharges in ASDEX Upgrade divertor IIb: flux dependence and local re-deposition, R. Pugno, K. Krieger, A. Kirschner, A. Kallenbach, D.P. Coster, R. Dux, U. Fantz, J. Likonen, H.W. Müller, J. Neuhauser, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 985
- Investigations of chemical erosion of carbon materials in hydrogen and deuterium low pressure plasmas, P. Starke, U. Fantz and M. Balden 337–339 (2005) 1005
- Hydrogen blister formation and cracking behavior for various tungsten materials, Y. Ueda, T. Funabiki, T. Shimada, K. Fukumoto, H. Kurishita and M. Nishikawa 337–339 (2005) 1010
- Incident-mass dependence of temperature-enhanced ion-induced sputtering in liquid metals, M.D. Coventry and D.N. Ruzic 337–339 (2005) 1015
- Investigation of the high temperature erosion of nickel under 5keV neon irradiation, E. Vietzke and V. Philipps 337–339 (2005) 1024
- Molecular dynamics modeling of deuterium in liquid lithium surfaces, H.-T. Qiu and D.N. Ruzic 337–339 (2005) 1029
- Modeling and analysis of mixed-material surface evolution and sputtering, A.M. Yacout and A. Hassanein 337–339 (2005) 1048
- Identification of molecular carbon sources in the JET divertor by means of emission spectroscopy, S. Brezinsek, A. Pospieszczyk, M.F. Stamp, A. Meigs, A. Kirschner, A. Huber, Ph. Mertens and JET-EFDA contributors 337–339 (2005) 1058
- Hot spot effect on infrared spectral luminance emitted by carbon under plasma particles impact, E. Delchambre, R. Reichle, R. Mitteau, M. Misirlian and P. Roubin 337–339 (2005) 1069
- High-speed 2-D image measurement for plasma-wall interaction studies, N. Nishino, K. Takahashi, H. Kawazome, Y. Fukagawa, T. Mizuuchi, K. Kondo, F. Sano, K. Nagasaki, H. Okada, S. Kobayahi and S. Yamamoto 337–339 (2005) 1073
- Exposure of metal mirrors in the scrape-off layer of TEXTOR, P. Wienhold, A. Litnovsky, V. Philipps, B. Schweer, G. Sergienko, P. Oelhafen, M. Ley, G. De Temmerman, W. Schneider, D. Hildebrandt, M. Laux, M. Rubel and B. Emmoth 337–339 (2005) 1116
- Theory and Modelling**
- ITER divertor performance in conditions of carbon re-erosion, A.S. Kukushkin, H.D. Pacher, D.P. Coster, G.W. Pacher and D. Reiter 337–339 (2005) 50
- On dust in tokamak edge plasmas, S.I. Krasheninnikov, T.K. Soboleva, Y. Tomita, R.D. Smirnov and R.K. Janev 337–339 (2005) 65
- OEDGE modeling of ¹³C deposition in the inner divertor of DIII-D, J.D. Elder, P.C. Stangeby, D.G. Whyte, S.L. Allen, A. McLean, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, C.J. Lasnier, S. Lisgo, D.L. Rudakov, W.R. Wampler, J.G. Watkins and W.P. West 337–339 (2005) 79
- Motion and lifetime of dust grains in a tokamak plasma, J.D. Martin, M. Coppins and G.F. Counsell 337–339 (2005) 114
- DIVIMP modeling of the toroidally symmetrical injection of ¹³CH₄ into the upper SOL of DIII-D, A.G. McLean, J.D. Elder, P.C. Stangeby, S.L. Allen, J.A. Boedo, N.H. Brooks, M.E. Fenstermacher, M. Groth, S.

- Lisgo, A. Nagy, D.L. Rudakov, W.R. Wampler, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 124
- OSM-EIRENE modeling of neutral pressures in the Alcator C-Mod divertor, S. Lisgo, P. Börner, C. Boswell, D. Elder, B. LaBombard, B. Lipschultz, C.S. Pitcher, D. Reiter, P.C. Stangeby, J.L. Terry and S. Wiesen 337–339 (2005) 139
- Three-dimensional proton trajectory analyses and simulation of neutral particle transport in an ICRF heated long pulse discharge on the large helical device, M. Shoji, R. Kumazawa, K. Saito, T. Watanabe, Y. Nakamura, S. Masuzaki, S. Morita, M. Goto, N. Noda, N. Ohyaib and LHD Experimental Groups 337–339 (2005) 186
- Simulation of afterglow plasma evolution in an inertial fusion energy chamber, B.K. Frolov, A.Yu. Pigarov, S.I. Krasheninnikov, R.W. Petzoldt and D.T. Goodin 337–339 (2005) 206
- Variation in particle pumping due to changes in topology in high performance DIII-D plasmas, T.W. Petrie, N.H. Brooks, M.E. Fenstermacher, C.M. Greenfield, M. Groth, A.W. Hyatt, A.W. Leonard, M.A. Mahdavi, G.D. Porter, M.E. Rensink, M.J. Schaffer, M.R. Wade, J.G. Watkins, N.S. Wolf and The DIII-D Team 337–339 (2005) 216
- 3D edge energy transport in stellarator configurations, N. McTaggart, R. Zagórski, X. Bonnin, A. Runov, R. Schneider, T. Kaiser, T. Rognlien and M. Umansky 337–339 (2005) 221
- Modeling of parasitic plasma under the divertor roof baffle, K. Matyash, R. Schneider, X. Bonnin, D. Coster, V. Rohde and H. Kersten 337–339 (2005) 237
- Modification of atomic physics rates due to nonlocal electron parallel heat transport in divertor plasmas, F. Allais, J.P. Matte, F. Alouani-Bibi, C.G. Kim, D.P. Stotler and T.D. Rognlien 337–339 (2005) 246
- Re-construction of detached divertor plasma conditions in DIII-D using spectroscopic and probe data, S. Lisgo, P.C. Stangeby, J.D. Elder, J.A. Boedo, B.D. Bray, N.H. Brooks, M.E. Fenstermacher, M. Groth, D. Reiter, D.L. Rudakov, J.G. Watkins, W.P. West and D.G. Whyte 337–339 (2005) 256
- Simulation of turbulence in the divertor region of tokamak edge plasma, M.V. Umansky, T.D. Rognlien and X.Q. Xu 337–339 (2005) 266
- EDGE2D code simulations of SOL flows and in-out divertor asymmetries in JET, G.S. Kirnev, G. Corrigan, D. Coster, S.K. Erents, W. Fundamentalski, G.F. Matthews and R.A. Pitts 337–339 (2005) 271
- Effect of drifts on the high Mach flow associated with the divertor detachment, K. Hoshino, A. Hatayama, R. Schneider and D.P. Coster 337–339 (2005) 276
- Generation of toroidal rotation by gas puff. Simulations of MAST experiments with B2SOLPS5.0, V. Rozhansky, E. Kaveeva, S. Voskoboynikov, G. Counsell, A. Kirk, D. Coster and R. Schneider 337–339 (2005) 291
- Modelling and consequences of drift effects in the edge plasma of Alcator C-Mod, X. Bonnin, D. Coster, R. Schneider, D. Reiter, V. Rozhansky and S. Voskoboynikov 337–339 (2005) 301
- Kinetic investigation of a collisionless scrape-off layer with a source of poloidal momentum, J.P. Gunn 337–339 (2005) 310
- Simulation of plasma fluxes to material surfaces with self-consistent edge turbulence and transport for tokamaks, T.D. Rognlien, M.V. Umansky, X.Q. Xu, R.H. Cohen and L.L. LoDestro 337–339 (2005) 327
- Control of long range turbulent transport with biasing in the tokamak scrape-off-layer, C.F. Figarella, Ph. Ghendrih, Y. Sarazin, G. Attuel, S. Benkadda, P. Beyer, G. Falchetto, E. Fleurence, X. Garbet and V. Grandgirard 337–339 (2005) 342
- Statistical analysis of turbulent front propagation in the scrape-off-layer, Ph. Ghendrih, Y. Sarazin, G. Attuel, S. Benkadda, P. Beyer, G. Darmet, G. Falchetto, C. Figarella, X. Garbet, V. Grandgirard and M. Ottaviani 337–339 (2005) 347
- 3D Scrape-off layer modelling with BoRiS, J. Riemann, M. Borchardt, R. Schneider and A. Mutzke 337–339 (2005) 357
- Multi-ion fluid simulation of tokamak edge plasmas including non-diffusive anomalous cross-field transport, A.Yu. Pigarov, E.M. Hollmann, S.I. Krasheninnikov, T.D. Rognlien and W.P. West 337–339 (2005) 371
- Simple Core-SOL-Divertor model and its application to operational space of HT-7U, R. Hiwatari, Y. Kuzuyama, A. Hatayama, K. Okano, Y. Asaoka, S. Zhu and Y. Tomita 337–339 (2005) 386
- Modelling of heat deposition onto the Tore Supra toroidal pumped limiter, X. Bonnin, Ph. Ghendrih, E. Tsitrone and R. Mitteau 337–339 (2005) 395
- Magnetic structure at the edge of a compact stellarator (NCSX), A. Grossman, T. Kaiser and P.K. Mioduszewski 337–339 (2005) 400

- Boundary conditions for the multi-ion magnetized plasma-wall transition, D. Tskhakaya and S. Kuhn 337–339 (2005) 405
- Kinetic neutral transport effects in the pedestal of H-mode discharges in the DIII-D tokamak, L.W. Owen, R.J. Groebner and M.A. Mahdavi 337–339 (2005) 410
- Assessment of the poloidal distribution of core plasma fueling and impurity sources in DIII-D, M. Groth, L.W. Owen, G.D. Porter, N.H. Brooks, M.E. Fenstermacher, W.H. Meyer, A.W. Leonard, T.W. Petrie, D.L. Rudakov, G. Wang, J.G. Watkins and N.S. Wolf 337–339 (2005) 425
- Modeling of the pellet cloud structure in the presence of ∇B induced drift, I.Yu. Senichenkov, I.Yu. Veselova, V.A. Rozhansky and R. Schneider 337–339 (2005) 446
- Measurement and modeling of hydrogen vibrational and rotational temperatures in weakly-ionized hydrogen discharges, E.M. Hollmann, A.Yu. Pigarov and K. Taylor 337–339 (2005) 451
- Modeling of three-dimensional neutral transport in tandem mirror plasmas using a Monte-Carlo code, Y. Nakashima, Y. Higashizono, T. Ohki, M. Shoji, S. Kobayashi, Y. Kubota, M. Yoshikawa, M.K. Islam, K. Watanabe, T. Ogita, M. Yamada, R. Murakami and T. Cho 337–339 (2005) 466
- On the lifetime of wall conditioning layers, H. Maier, K. Schmid and W. Eckstein 337–339 (2005) 480
- Three-dimensional simulation of gas conductance measurement experiments on Alcator C-Mod, D.P. Stotler and B. LaBombard 337–339 (2005) 510
- Role of wall implantation of charge exchange neutrals in the deuterium retention for Tore Supra long discharges, E. Tsitrone, D. Reiter, T. Loarer, C. Brosset, J. Bucalossi, L. Begrambekov, C. Grisolia, A. Grosman, J. Gunn, J. Hogan, R. Mitteau, B. Pégourié, P. Ghendrih, R. Reichle and P. Roubin 337–339 (2005) 539
- Multi-scale modeling of hydrogen isotope transport in porous graphite, M. Warrier, R. Schneider, E. Salonen and K. Nordlund 337–339 (2005) 580
- Edge localized modes control: experiment and theory, M. Becoulet, G. Huysmans, P. Thomas, E. Joffrin, F. Rimini, P. Monier-Garbet, A. Grosman, P. Ghendrih, V. Parail, P. Lomas, G. Matthews, H. Wilson, M. Gryaznevich, G. Counsell, A. Loarte, G. Saibene, R. Sartori, A. Leonard, P. Snyder, T. Evans, P. Gohil, R. Moyer, Y. Kamada, N. Oyama, T. Hatae, K. Kamiya, A. Degeling, Y. Martin, J. Lister, J. Rapp, C. Perez, P. Lang, A. Chankin, T. Eich, A. Sips, J. Stober, L. Horton, A. Kallenbach, W. Sutrop, S. Saarelma, S. Cowley, J. Lönnroth, M. Shimada, A. Polevoi and G. Federici 337–339 (2005) 677
- Effect of B-field dependent particle drifts on ELM behavior in the DIII-D boundary plasma, M.E. Fenstermacher, A.W. Leonard, G.D. Porter, J.A. Boedo, N.H. Brooks, D.S. Gray, M. Groth, E.M. Hollmann, C.J. Lasnier, T.W. Petrie and L. Zeng 337–339 (2005) 781
- Dynamic transition between erosion and deposition on a tungsten surface exposed to edge plasmas containing carbon impurities, K. Ohya, T. Tanabe, A. Kirschner, T. Hirai, V. Philipps, M. Wada, T. Ohgo and N. Noda 337–339 (2005) 882
- Density functional theory and molecular dynamic studies of hydrogen interaction with plasma-facing graphite surfaces and the impact of boron doping, Y. Ferro, A. Jelea, F. Marinelli, C. Brosset and A. Allouche 337–339 (2005) 897
- Thermal behaviour of redeposited layer under high heat flux exposure, E. Gauthier, S. Dumas, J. Matheus, M. Missirlian, Y. Corre, L. Nicolas, P. Yala, P. Coad, P. Andrew, S. Cox and the JET-EFDA contributors 337–339 (2005) 960
- Rovibrational distribution of H_2 in low temperature plasma: the dependence on the plasma parameters, B. Xiao, S. Kado, S. Kajita, D. Yamasaki and S. Tanaka 337–339 (2005) 1082
- Investigation of the role of temperature fluctuations on spectral line shapes, Y. Marandet, H. Capes, L. Godbert-Mouret, M. Koubiti and R. Stamm 337–339 (2005) 1092
- Kinetic (PIC) simulations for a plane probe in a collisional plasma, S. Teodoru, D. Tskhakaya, S. Kuhn, D.D. Tskhakaya, R. Schrittwieser, C. Ioniță and G. Popa 337–339 (2005) 1111
- Damage process of high purity tungsten coatings by hydrogen beam heat loads, S. Tamura, K. Tokunaga, N. Yoshida, M. Taniguchi, K. Ezato, K. Sato, S. Suzuki, M. Akiba, Y. Tsunekawa and M. Okumiya 337–339 (2005) 1043
- Thermal Shock**
Suppression of large edge localized modes in high confinement DIII-D plasmas with a stochastic magnetic boundary, T.E. Evans, R.A. Moyer, J.G. Wat-

- kins, P.R. Thomas, T.H. Osborne, J.A. Boedo, M.E. Fenstermacher, K.H. Finken, R.J. Groebner, M. Groth, J. Harris, G.L. Jackson, R.J. La Haye, C.J. Lasnier, M.J. Schaffer, G. Wang and L. Zeng 337–339 (2005) 691
- Thermodynamic Properties**
- Outer divertor target deposited layers during reversed magnetic field operation in JET, P. Andrew, J.P. Coad, Y. Corre, T. Eich, A. Herrmann, G.F. Matthews, J.I. Paley, L. Pickworth, R.A. Pitts, M.F. Stamp and JET EFDA Contributors 337–339 (2005) 99
- Motion and lifetime of dust grains in a tokamak plasma, J.D. Martin, M. Coppins and G.F. Counsell 337–339 (2005) 114
- High temperature erosion of beryllium, R.P. Doerner, M.J. Baldwin, S.I. Krashennikov and K. Schmid 337–339 (2005) 877
- Investigation of the high temperature erosion of nickel under 5keV neon irradiation, E. Vietzke and V. Philipps 337–339 (2005) 1024
- Surface temperature measurements of carbon materials in fusion devices, D. Hildebrandt, D. Naujoks and D. Sünder 337–339 (2005) 1064
- Thermophysical Properties**
- Thermal properties of plasma exposed carbon and heat flux calculations on a spatial scale of a few microns, A. Herrmann 337–339 (2005) 907
- Thermal behaviour of redeposited layer under high heat flux exposure, E. Gauthier, S. Dumas, J. Matheus, M. Missirlian, Y. Corre, L. Nicolas, P. Yala, P. Coad, P. Andrew, S. Cox and the JET-EFDA contributors 337–339 (2005) 960
- Tritium and Tritides**
- Retention characteristics of hydrogen isotopes in JT-60U, K. Masaki, K. Sugiyama, T. Hayashi, K. Ochiai, Y. Gotoh, T. Shibahara, Y. Hirohata, Y. Oya, N. Miya and T. Tanabe 337–339 (2005) 553
- Tritium recovery in ITER by radiative plasma terminations, D.G. Whyte and J.W. Davis 337–339 (2005) 560
- Tritium distribution in JET Mark IIA type divertor tiles analysed by BIXS, Y. Torikai, M. Matsuyama, N. Bekris, M. Glugla, P. Coad, W. Naegele, A. Erbe, N. Noda, V. Philipps and K. Watanabe 337–339 (2005) 575
- Tritium distribution on plasma-facing tiles from ASDEX Upgrade, K. Sugiyama, T. Tanabe, K. Krieger, R. Neu and N. Bekris 337–339 (2005) 634
- Fuel removal from bumper limiter tiles by using a pulsed excimer laser, B. Em-
moth, S. Khartsev, A. Pisarev, A. Grishin, U. Karlsson, A. Litnovsky, M. Rubel and P. Wienhold 337–339 (2005) 639
- Hydrogen release behavior from graphite under pulsed laser irradiation, T. Shibahara, Y. Sakawa and T. Tanabe 337–339 (2005) 654
- Characterisation of flakes generated in JET after DD and DT plasma operations, N. Bekris, J.P. Coad, R.-D. Penzhorn, S. Knipe, L. Doerr, R. Rolli and W. Nägele 337–339 (2005) 659
- Low-energy tritium ion erosion of graphite, R.G. Macaulay-Newcombe, A.A. Haasz and J.W. Davis 337–339 (2005) 857
- Flux dependence of carbon erosion and implication for ITER, J. Roth, A. Kirschner, W. Bohmeyer, S. Brezinsek, A. Cambe, E. Casarotto, R. Doerner, E. Gauthier, G. Federici, S. Higashijima, J. Hogan, A. Kallenbach, H. Kubo, J.M. Layet, T. Nakano, V. Philipps, A. Pospieszczyk, R. Preuss, R. Pugno, R. Ruggieri, B. Schweer, G. Sergienko and M. Stamp 337–339 (2005) 970
- Tungsten, Tungsten Alloys and Compounds**
- Tungsten redistribution patterns in ASDEX Upgrade, K. Krieger, J. Likonen, M. Mayer, R. Pugno, V. Rohde, E. Vainonen-Ahlgren and ASDEX Upgrade Team 337–339 (2005) 10
- Simulation study on influence of chemically eroded higher hydrocarbons on SOL impurity transport and effect of dynamical material mixing on erosion/deposition of tungsten surfaces exposed to boundary plasmas, R. Kawakami and T. Mitani 337–339 (2005) 45
- Tungsten limiter tests in ASDEX Upgrade, M.Y. Ye, H. Maier, A. Herrmann, V. Rohde, H. Bolt, R. Neu, J. Neuhauser and ASDEX Upgrade Team 337–339 (2005) 104
- Motion and lifetime of dust grains in a tokamak plasma, J.D. Martin, M. Coppins and G.F. Counsell 337–339 (2005) 114
- Numerical modelling of changes of edge plasma transport due to the presence of TEXTOR-DED, H. Gerhauser, R. Zagórski, D. Reiser and M.Z. Tokar' 337–339 (2005) 337
- On the lifetime of wall conditioning layers, H. Maier, K. Schmid and W. Eckstein 337–339 (2005) 480
- Recoil energy distribution of hydrogen isotopes adsorbed on tungsten, R. Bastasz and J.A. Whaley 337–339 (2005) 544
- Depth distribution of deuterium in single- and polycrystalline tungsten up to depths of several micrometers, V.Kh. Alimov, J. Roth and M. Mayer 337–339 (2005) 619

- Effects of background gas impurities during D^+ irradiation on D trapping in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 337–339 (2005) 629
- Effects of ELMs and disruptions on ITER divertor armour materials, G. Federici, A. Zhitlukhin, N. Arkipov, R. Giniyatulin, N. Klimov, I. Landman, V. Podkovyrov, V. Safronov, A. Loarte and M. Merola 337–339 (2005) 684
- Erosion of tungsten armor after multiple intense transient events in ITER, B.N. Bazylev, G. Janeschitz, I.S. Landman and S.E. Pestchanyi 337–339 (2005) 766
- Plasma surface interaction with tungsten in ASDEX Upgrade, R. Dux, A. Herrmann, A. Kallenbach, R. Neu, J. Neuhauser, H. Maier, R. Pugno, T. Pütterich, V. Rohde and ASDEX Upgrade Team 337–339 (2005) 852
- Dynamic transition between erosion and deposition on a tungsten surface exposed to edge plasmas containing carbon impurities, K. Ohya, T. Tanabe, A. Kirschner, T. Hirai, V. Philipps, M. Wada, T. Ohgo and N. Noda 337–339 (2005) 882
- Blister formation and deuterium retention on tungsten exposed to low energy and high flux deuterium plasma, K. Tokunaga, M.J. Baldwin, R.P. Doerner, N. Noda, Y. Kubota, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 337–339 (2005) 887
- Influence of microstructure of tungsten on solid state reaction rate with amorphous carbon film, Y. Hatano, M. Takamori, K. Nogita, K. Matsuda, S. Ikeno and K. Watanabe 337–339 (2005) 902
- Characteristic changes of deuterium retention on tungsten surfaces due to low-energy helium plasma pre-exposure, D. Nishijima, T. Sugimoto, H. Iwakiri, M.Y. Ye, N. Ohno, N. Yoshida and S. Takamura 337–339 (2005) 927
- Impact of low energy helium irradiation on plasma facing metals, N. Yoshida, H. Iwakiri, K. Tokunaga and T. Baba 337–339 (2005) 946
- Formation of a surface alloy in the beryllium–tungsten system, A. Wiltner and Ch. Linsmeier 337–339 (2005) 951
- Formation of D inventories and structural modifications by deuterium bombardment of tungsten thin films, I. Bizyukov, K. Krieger, N. Azarenkov, S. Levchuk and Ch. Linsmeier 337–339 (2005) 965
- Hydrogen blister formation and cracking behavior for various tungsten materials, Y. Ueda, T. Funabiki, T. Shimada, K. Fukumoto, H. Kurishita and M. Nishikawa 337–339 (2005) 1010
- Modification of tungsten layers by arcing, M. Laux, W. Schneider, B. Jüttner, S. Lindig, M. Mayer, M. Balden, I. Beilis and B. Djakov 337–339 (2005) 1019
- X-ray Techniques and Applications**
- Thermal desorption behavior of deuterium implanted into polycrystalline diamond, H. Kimura, M. Sasaki, Y. Morimoto, T. Takeda, H. Kodama, A. Yoshikawa, M. Oyaidzu, K. Takahashi, K. Sakamoto, T. Imai and K. Okuno 337–339 (2005) 614