



Subject index

Aluminum, Aluminum Alloys and Compounds

- Effects of specimen thickness and impurity on the conductivity of alumina under electron irradiation, T. Higuchi, K. Shiyama, Y. Izumi, M.M.R. Howlader, M. Kutsuwada and C. Kinoshita 307–311 (2002) 1250
- Development of coatings for fusion power applications, D.L. Smith, J. Konys, T. Muroga and V. Evitkhin 307–311 (2002) 1314
- Plasma sprayed coatings for RF wave absorption, S. Nanobashvili, J. Matějček, F. Žáček, J. Stöckel, P. Chráška and V. Brožek 307–311 (2002) 1334
- Corrosion behaviour of Al based tritium permeation barriers in flowing Pb–17Li, H. Glasbrenner, J. Konys, Z. Voss and O. Wedemeyer 307–311 (2002) 1360

Analytical Instruments and Methods *(not listed elsewhere)*

- Solubility of uranium at very low concentration in RAFM steel, A. Paúl, L.C. Alves, J.A. Odriozola and J.C. Soares 307–311 (2002) 544
- Studies on retention of tritium implanted into tungsten by β -ray-induced X-ray spectrometry, M. Matsuyama, T. Murai, K. Yoshida, K. Watanabe, H. Iwakiri and N. Yoshida 307–311 (2002) 729
- Imaging plate technique for determination of tritium distribution on graphite tiles of JT-60U, T. Tanabe, K. Miyasaka, K. Masaki, K. Kodama and N. Miya 307–311 (2002) 1441

Beryllium, Beryllium Alloys and Compounds

- Beryllium for fusion application – recent results, A. Khomutov, V. Barabash, V. Chakin, V. Chernov, D. Davydov, V. Gorokhov, H. Kawamura, B. Kolbasov, I. Kupriyanov, G. Longhurst, F. Scaffidi-Argentina and V. Shestakov 307–311 (2002) 630
- Compatibility between Be₁₂Ti and SS316LN, H. Kawamura, M. Uchida and V. Shestakov 307–311 (2002) 638

- Elemental characterisation of beryllium and electrical behaviour of their pebbles beds, E. Alves, M.R. da Silva, L.C. Alves, F. Scaffidi-Argentina and J.C. Soares 307–311 (2002) 643
- Effects of neutron irradiation at 70–200 °C in beryllium, V.P. Chakin, V.A. Kazakov, R.R. Melder, Yu.D. Goncharenko and I.B. Kupriyanov 307–311 (2002) 647
- Tritium release properties of neutron-irradiated Be₁₂Ti, M. Uchida, E. Ishitsuka and H. Kawamura 307–311 (2002) 653
- Evolution of beryllium microstructure under high-dose neutron irradiation, V.P. Chakin and Z. Ye Ostrovsky 307–311 (2002) 657
- Influence of high dose neutron irradiation on thermal conductivity of beryllium, D.N. Syslov, V.P. Chakin and R.N. Latypov 307–311 (2002) 664
- Displacement damage parameters for fusion breeder blanket materials based on BCA computer simulations, D. Leichtle 307–311 (2002) 793
- Activation characteristics of a solid breeder blanket for a fusion power demonstration reactor, U. Fischer and H. Tsige-Tamirat 307–311 (2002) 798
- Steam oxidation of PFC materials for advanced tokamaks, R.A. Anderl, R.J. Pawelko, G.R. Smolik, G. Piazza, F. Scaffidi-Argentina and L.L. Snead 307–311 (2002) 1375
- First wall material issues and related activities at JET, F. Scaffidi-Argentina, S. Ciattaglia, P. Coad, R.-D. Penzhorn, V. Philipps and Contributors to the EFDA-JET Fusion Technology Task Force and Task Force E 307–311 (2002) 1411
- Helium and tritium kinetics in irradiated beryllium pebbles, E. Rabbaglio, J.P. Hiernaut, C. Ronchi and F. Scaffidi-Argentina 307–311 (2002) 1424
- Heat load test of Be/Cu joint for ITER first wall mock-ups, M. Uchida, E.

- Ishitsuka, T. Hatano, V. Barabash and H. Kawamura 307–311 (2002) 1533
- Development of Be/DSCu HIP bonding and thermo-mechanical evaluation, T. Hatano, T. Kuroda, V. Barabash and M. Enoeda 307–311 (2002) 1537
- Breeding Materials for Fusion**
- Breeding blanket concepts for fusion and materials requirements, A.R. Raffray, M. Akiba, V. Chuyanov, L. Giancarli and S. Malang 307–311 (2002) 21
- Fabrication and properties of a tin–lithium alloy, K. Natesan and W.E. Ruther 307–311 (2002) 743
- Displacement damage parameters for fusion breeder blanket materials based on BCA computer simulations, D. Leichtle 307–311 (2002) 793
- Activation characteristics of a solid breeder blanket for a fusion power demonstration reactor, U. Fischer and H. Tsige-Tamirat 307–311 (2002) 798
- Fabrication of Li_2TiO_3 pebbles by the extrusion–spheronisation–sintering process, J.D. Lulewicz and N. Roux 307–311 (2002) 803
- Thermal creep of granular breeder materials in fusion blankets, L. Bühler and J. Reimann 307–311 (2002) 807
- Characterisation of ceramic breeder materials for the helium cooled pebble bed blanket, G. Piazza, J. Reimann, E. Günther, R. Knitter, N. Roux and J.D. Lulewicz 307–311 (2002) 811
- In-pile test of Li_2TiO_3 pebble bed with neutron pulse operation, K. Tsuchiya, M. Nakamichi, A. Kikukawa, Y. Nagao, M. Enoeda, T. Osaki, K. Ioki and H. Kawamura 307–311 (2002) 817
- Influence of neutron irradiation on the strength characteristics of lithium ceramic pellets for fusion reactor blankets, V. Kaptychev, V. Tebus and V. Frolov 307–311 (2002) 823
- Numerical simulation of ceramic breeder pebble bed thermal creep behavior, A. Ying, H. Huang and M. Abdou 307–311 (2002) 827
- In-pile performance of a double-walled tube and a tritium permeation barrier, A.J. Magielsen, K. Bakker, C. Chabrol, R. Conrad, J.G. van der Laan, E. Rigal and M.P. Stijkel 307–311 (2002) 832
- Li_2TiO_3 pebbles reprocessing, recovery of ^6Li as Li_2CO_3 , C. Alvani, S. Casadio, V. Contini, A. Di Bartolomeo, J.D. Lulewicz and N. Roux 307–311 (2002) 837
- Compatibility of materials for fusion reactors with Pb–17Li, F. Barbier, Ph. Deloffre and A. Terlain 307–311 (2002) 1351
- Compatibility of ferritic steels with Li_2BeF_4 molten salt breeder, H. Nishimura, T. Terai, M. Yamawaki, S. Tanaka, A. Sagara and O. Motojima 307–311 (2002) 1355
- Control of the nitrogen concentration in liquid lithium by the hot trap method, T. Sakurai, T. Yoneoka, S. Tanaka, A. Suzuki and T. Muroga 307–311 (2002) 1380
- In situ formation of CaO insulator coatings on vanadium alloys, D.L. Smith, J.-H. Park and K. Natesan 307–311 (2002) 1405
- Ab initio study on isotope exchange reactions of H_2 with surface hydroxyl groups in lithium silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs, Y. Katano and S. Jitsukawa 307–311 (2002) 1436
- Ab-initio study on interaction of hydrogen isotopes with charged defects in lithium oxide, H. Tanigawa and S. Tanaka 307–311 (2002) 1446
- Effect of catalytic metals on tritium release from ceramic breeder materials, K. Munakata, Y. Yokoyama, A. Koga, N. Nakashima, S. Beloglazov, T. Takeishi, M. Nishikawa, R.-D. Penzhorn, K. Kawamoto, H. Moriyama, Y. Morimoto and K. Okuno 307–311 (2002) 1451
- Tritium release from neutron-irradiated Li_2O sintered pellets: fluence dependence, T. Tanifuji, D. Yamaki and S. Jitsukawa 307–311 (2002) 1456
- The fusion-driven hybrid system and its material selection, Y.C. Wu, J.P. Qian and J.N. Yu 307–311 (2002) 1629
- Strategy of fusion reactor materials R&D in China, J.P. Qian, Y.C. Wu and J.G. Li 307–311 (2002) 1637
- Research of lithium capillary-pore systems for fusion reactor plasma facing components, V.A. Evtikhin, A.V. Vertkov, I.E. Lyublinski, B.I. Khripunov, V.B. Petrov and S.V. Mirnov 307–311 (2002) 1664
- Neutron radiation effects of the center conductor post in a spherical tokamak reactor, J. Yu, Y. Wu, J. Sha, Q. Huang and Y. Ke 307–311 (2002) 1670
- New evaluation of displacement damage and gas production for breeder ceramics under IFMIF, fusion and fission neutron irradiation, Yu. Lizunov, A. Möslang, A. Ryazanov and P. Vladimirov 307–311 (2002) 1680
- Carbon**
- Simulation experimental investigation of plasma off-normal events on

- advanced silicon doped CFC-NS31, J.P. Bonal, C.H. Wu and D. Gosset 307–311 (2002) 100
- Overview of fuel retention in composite and tungsten limiters, M. Rubel, V. Philipps, A. Pospieszczyk, T. Tanabe and S. Kötterl 307–311 (2002) 111
- Modification of tungsten coated carbon by low energy and high flux deuterium irradiation, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 307–311 (2002) 126
- Non-destructive testing of CFC monoblock divertor mock-ups, K. Ezato, M. Dairaku, M. Taniguchi, K. Sato and M. Akiba 307–311 (2002) 144
- Material properties and consequences on the quality of core supra plasma facing components, J. Schlosser, A. Durocher, T. Huber, P. Chappuis, P. Garin, W. Knabl and B. Schedler 307–311 (2002) 686
- Deposition of compositionally graded SiC/C layers on C–C composites by low pressure chemical vapor deposition, J.I. Kim, W.-J. Kim, D.J. Choi and J.Y. Park 307–311 (2002) 1084
- Physical property change of concurrently neutron-irradiated CVD-diamond, silicon and silicon carbide, T. Yano, Y. Yamamoto and T. Iseki 307–311 (2002) 1102
- High thermal conductivity of graphite fiber silicon carbide composites for fusion reactor application, L.L. Snead, M. Balden, R.A. Causey and H. Atsumi 307–311 (2002) 1200
- Mechanical strength of neutron-irradiated window materials, R. Heindinger 307–311 (2002) 1254
- Improvement of the thermo-mechanical properties of fine grain graphite by doping with different carbides, C. García-Rosales, N. Ordás, E. Oyarzabal, J. Echeberria, M. Balden, S. Lindig and R. Behrisch 307–311 (2002) 1282
- TEM and EELS characterization of carbon dust and co-deposited layers from the TEXTOR tokamak, S. Muto, T. Tanabe, A. Hirota, M. Rubel, V. Philipps and T. Maruyama 307–311 (2002) 1289
- Microstructure and deuterium content of tokamak T-10 carbon erosion products, P.V. Romanov, B.N. Kolbasov, V.Kh. Alimov, V.M. Gureev, A.G. Domantovskij, L.N. Khimchenko and P.N. Orlov 307–311 (2002) 1294
- The effect of low temperature neutron irradiation and annealing on the thermal conductivity of advanced carbon-based materials, V. Barabash, I. Mazul, R. Latypov, A. Pokrovsky and C.H. Wu 307–311 (2002) 1300
- Plasma sprayed coatings for RF wave absorption, S. Nanobashvili, J. Matějček, F. Záček, J. Stöckel, P. Chráska and V. Brožek 307–311 (2002) 1334
- Solid state reaction between tungsten and amorphous carbon, Y. Hatanono, M. Takamori, K. Matsuda, S. Ikeno, K. Fujii and K. Watanabe 307–311 (2002) 1339
- Erosion mechanism and erosion products in carbon-based materials, N. Arkhipov, V. Bakhtin, V. Barsuk, S. Kurkin, E. Mironova, G. Piazza, V. Safronov, F. Scaffidi-Argentina, D. Toporkov, S. Vasenin, H. Würz and A. Zhitlukhin 307–311 (2002) 1364
- Steam oxidation of PFC materials for advanced tokamaks, R.A. Anderl, R.J. Pawelko, G.R. Smolik, G. Piazza, F. Scaffidi-Argentina and L.L. Snead 307–311 (2002) 1375
- Imaging plate technique for determination of tritium distribution on graphite tiles of JT-60U, T. Tanabe, K. Miyasaka, K. Masaki, K. Kodama and N. Miya 307–311 (2002) 1441
- Hydrogen bulk retention in graphite and kinetics of diffusion, H. Atsumi 307–311 (2002) 1466
- Application of electron stimulated desorption for hydrogen removal from graphite, R. Ishida, T. Shibahara and T. Tanabe 307–311 (2002) 1502
- TORE SUPRA experience of copper chromium zirconium electron beam welding, A. Durocher, M. Lipa, Ph. Chappuis, J. Schlosser, T. Huber and B. Schedler 307–311 (2002) 1554
- Possible techniques for the detritiation of first wall materials from fusion machines, N. Bekris, C. Caldwell-Nichols, L. Doerr, M. Glugla, R.-D. Penzhorn and H. Ziegler 307–311 (2002) 1649
- Cavities (includes Voids, Holes)**
- Void swelling in reduced activation ferritic/martensitic steels under ion-beam irradiation to high fluences, H. Ogiwara, H. Sakasegawa, H. Tanigawa, M. Ando, Y. Katoh and A. Kohyama 307–311 (2002) 299
- Microstructure in vanadium irradiated by simultaneous multi-ion beam of hydrogen, helium and nickel ions, I. Mukouda, Y. Shimomura, D. Yamaki, T. Nakazawa, T. Aruga and S. Jitsukawa 307–311 (2002) 412
- The effect of bias factor variations on void nucleation in irradiated alloys,

- V.A. Borodin, A.E. Volkov and A.I. Ryazanov 307–311 (2002) 862
- The effects of one-dimensional migration of self-interstitial clusters on the formation of void lattices, H.L. Heinisch and B.N. Singh 307–311 (2002) 876
- Modeling of void nucleation under cascade damage conditions, H. Trinkaus and B.N. Singh 307–311 (2002) 900
- One dimensional motion of interstitial clusters and void growth in Ni and Ni alloys, T. Yoshiie, T. Ishizaki, Q. Xu, Y. Satoh and M. Kiritani 307–311 (2002) 924
- Temperature effect on characteristics of void population formed in the austenitic steel under neutron irradiation up to high damage dose, A.V. Kozlov, I.A. Portnykh, L.A. Skryabin and E.A. Kinev 307–311 (2002) 956
- Absence of saturation of void growth in rate theory with anisotropic diffusion, T.S. Hudson, S.L. Dudarev and A.P. Sutton 307–311 (2002) 976
- Formation and migration of helium bubbles in Fe and Fe–9Cr ferritic alloy, K. Ono, K. Arakawa and K. Hojou 307–311 (2002) 1507
- Conditions for effects of radiation pulsing, H. Trinkaus and H. Ullmaier 307–311 (2002) 1705
- Ceramics (not listed elsewhere)**
- Properties of plasma sprayed boron carbide protective coatings for the first wall in fusion experiments, J.-E. Döring, R. Vaßen, J. Linke and D. Stöver 307–311 (2002) 121
- Temperature limits on the compatibility of insulating ceramics in lithium, B.A. Pint, J.H. DeVan and J.R. DiStefano 307–311 (2002) 1344
- Chemical Reactions (includes Electrochemical and Thermochemical Reactions)**
- Oxide formation of a purified V–4Cr–4Ti alloy during heat treatment and ion irradiation, H. Watanabe, M. Suda, T. Muroga and N. Yoshida 307–311 (2002) 408
- Surface segregation and oxidation of Ti in a V–Ti alloy, R. Hayakawa, Y. Hatano, K. Fujii, K.-i. Fukumoto, H. Matsui and K. Watanabe 307–311 (2002) 580
- Solid state reaction between tungsten and amorphous carbon, Y. Hatanano, M. Takamori, K. Matsuda, S. Ikeno, K. Fujii and K. Watanabe 307–311 (2002) 1339
- Kinetic features of the component interaction in the V[O]–Li[Ca] system, O.I. Yeliseyeva, V.M. Chernov and T.V. Tsaran 307–311 (2002) 1400
- Exchange of tritium implanted into oxide ceramics for protium by exposure to air vapors at room temperature, K. Morita, H. Suzuki, K. Soda, H. Iwahara, H. Nakamura, T. Hayasi and M. Nishi 307–311 (2002) 1461
- Cladding Materials**
- Burst properties of irradiated oxide dispersion strengthened ferritic steel claddings, T. Yoshitake, T. Ohmori and S. Miyakawa 307–311 (2002) 788
- Temperature effect on characteristics of void population formed in the austenitic steel under neutron irradiation up to high damage dose, A.V. Kozlov, I.A. Portnykh, L.A. Skryabin and E.A. Kinev 307–311 (2002) 956
- Coatings and Coated Particles**
- Characterisation and thermal loading of low-Z coatings for the first wall of W7-X, D. Valenza, H. Greuner, G. Hofmann, S. Kötterl, J. Roth and H. Bolt 307–311 (2002) 89
- Development of tungsten coated first wall and high heat flux components for application in ASDEX Upgrade, H. Maier, J. Luthin, M. Balden, S. Lindig, J. Linke, V. Rohde, H. Bolt and ASDEX Upgrade Team 307–311 (2002) 116
- Properties of plasma sprayed boron carbide protective coatings for the first wall in fusion experiments, J.-E. Döring, R. Vaßen, J. Linke and D. Stöver 307–311 (2002) 121
- Modification of tungsten coated carbon by low energy and high flux deuterium irradiation, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 307–311 (2002) 126
- Disruption tests on repaired tungsten by CVD coating, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama and M. Akiba 307–311 (2002) 719
- In-pile performance of a double-walled tube and a tritium permeation barrier, A.J. Magielsen, K. Bakker, C. Chabrol, R. Conrad, J.G. van der Laan, E. Rigal and M.P. Stijkel 307–311 (2002) 832
- Deposition of compositionally graded SiC/C layers on C–C composites by low pressure chemical vapor deposition, J.I. Kim, W.-J. Kim, D.J. Choi and J.Y. Park 307–311 (2002) 1084
- Development of coatings for fusion power applications, D.L. Smith, J. Konys, T. Muroga and V. Evitkhin 307–311 (2002) 1314

- Development of CaO coatings by thermal and chemical vapor deposition, K. Natesan, M. Uz and D.L. Smith 307–311 (2002) 1323
- Characterization of hydrogen barrier coatings for titanium-base alloys, T. Leguey, N. Baluc, F. Jansen and M. Victoria 307–311 (2002) 1329
- Plasma sprayed coatings for RF wave absorption, S. Nanobashvili, J. Matějček, F. Žáček, J. Stöckel, P. Chráska and V. Brožek 307–311 (2002) 1334
- Temperature limits on the compatibility of insulating ceramics in lithium, B.A. Pint, J.H. DeVan and J.R. DiStefano 307–311 (2002) 1344
- In situ formation of CaO insulator coatings on vanadium alloys, D.L. Smith, J.-H. Park and K. Natesan 307–311 (2002) 1405
- Hydrogen permeation through metal membrane with protective coating in contact with atomic or ionized hydrogen, V.M. Sharapov 307–311 (2002) 1520
- Compatibility and Corrosion** (*includes Stress Corrosion Cracking*)
- Irradiation-assisted SCC susceptibility of HIPed 316LN-IG stainless steel irradiated at 473 K to 1 dpa, Y. Miwa, T. Tsukada, H. Tsuji and S. Jitsukawa 307–311 (2002) 347
- Oxygen embrittlement of vanadium alloys with and without surface oxide formation, B.A. Pint and J.R. DiStefano 307–311 (2002) 560
- Effects of doping elements on oxidation properties of V–Cr–Ti type alloys in several environments, M. Fujiwara, K. Natesan, M. Satou, A. Hasegawa and K. Abe 307–311 (2002) 601
- Compatibility between Be₁₂Ti and SS316LN, H. Kawamura, M. Uchida and V. Shestakov 307–311 (2002) 638
- Fabrication and properties of a tin-lithium alloy, K. Natesan and W.E. Ruther 307–311 (2002) 743
- Long-term high temperature oxidation behavior of ODS ferritics, B.A. Pint and I.G. Wright 307–311 (2002) 763
- Comparative study: sensitization development in hot-isostatic-pressed cast and wrought structures type 316L(N)-IG stainless steel under isothermal heat treatment, K.I. Shutko and V.N. Belous 307–311 (2002) 1016
- Promise and challenges of SiC_f/SiC composites for fusion energy applications, R.H. Jones, L. Giancarli, A. Hasegawa, Y. Katoh, A. Kohyama, B. Riccardi, L.L. Snead and W.J. Weber 307–311 (2002) 1057
- Development of CaO coatings by thermal and chemical vapor deposition, K. Natesan, M. Uz and D.L. Smith 307–311 (2002) 1323
- Temperature limits on the compatibility of insulating ceramics in lithium, B.A. Pint, J.H. DeVan and J.R. DiStefano 307–311 (2002) 1344
- Compatibility of materials for fusion reactors with Pb–17Li, F. Barbier, Ph. Deloffre and A. Terlain 307–311 (2002) 1351
- Compatibility of ferritic steels with Li₂BeF₄ molten salt breeder, H. Nishimura, T. Terai, M. Yamawaki, S. Tanaka, A. Sagara and O. Motojima 307–311 (2002) 1355
- Corrosion behaviour of Al based tritium permeation barriers in flowing Pb–17Li, H. Glasbrenner, J. Konys, Z. Voss and O. Wedemeyer 307–311 (2002) 1360
- Corrosion resistance of refractory metals in high-temperature water, Y. Ishijima, K. Kakiuchi, T. Furuya, H. Kurishita, M. Hasegawa, T. Igarashi and M. Kawai 307–311 (2002) 1369
- Control of the nitrogen concentration in liquid lithium by the hot trap method, T. Sakurai, T. Yoneoka, S. Tanaka, A. Suzuki and T. Muroga 307–311 (2002) 1380
- Recent activities on the compatibility of the ferritic steel wall with the plasma in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, N. Isei, H. Kimura, H. Ogawa, K. Miyachi, M. Yamamoto and T. Shibata 307–311 (2002) 1386
- Mechanical and corrosion behaviour of EUROFER 97 steel exposed to Pb–17Li, G. Benamati, C. Fazio and I. Ricapito 307–311 (2002) 1391
- Composite Materials**
- Prediction of plastic deformation of fiber-reinforced copper matrix composites, J.H. You and H. Bolt 307–311 (2002) 74
- Phase stability of oxide dispersion-strengthened ferritic steels in neutron irradiation, S. Yamashita, K. Oka, S. Ohnuki, N. Akasaka and S. Ukai 307–311 (2002) 283
- Low void swelling in dispersion strengthened copper alloys under single-ion irradiation, M. Hatakeyama, H. Watanabe, M. Akiba and N. Yoshida 307–311 (2002) 444
- Ferritic/martensitic steels – overview of recent results, R.L. Klueh, D.S. Gelles, S. Jitsukawa, A. Kimura, G.R. Odette, B. van der Schaaf and M. Victoria 307–311 (2002) 455

- Tensile and fracture toughness properties of MA957: implications to the development of nano-composited ferritic alloys, M.J. Alinger, G.R. Odette and G.E. Lucas 307–311 (2002) 484
- Discontinuously reinforced titanium matrix composites for fusion applications, V. de Castro, T. Leguey, M.A. Monge, A. Muñoz, R. Pareja and M. Victoria 307–311 (2002) 691
- Long-term high temperature oxidation behavior of ODS ferritics, B.A. Pint and I.G. Wright 307–311 (2002) 763
- Interfacial characterization of CVI-SiC/SiC composites, W. Yang, A. Kohyama, T. Noda, Y. Katoh, T. Hinoki, H. Araki and J. Yu 307–311 (2002) 1088
- Electrical conductivity of silicon carbide composites and fibers, R. Scholz, F. dos Santos Marques and B. Riccardi 307–311 (2002) 1098
- Optimizing the transverse thermal conductivity of 2D-SiC_p/SiC composites. I. Modeling, G.E. Youngblood, D.J. Senor and R.H. Jones 307–311 (2002) 1112
- Optimizing the transverse thermal conductivity of 2D-SiC_p/SiC composites. II. Experimental, G.E. Youngblood, D.J. Senor, R.H. Jones and W. Kowbel 307–311 (2002) 1120
- Process, microstructure and flexural properties of reaction sintered Tyranno SA/SiC composites, S.P. Lee, J.S. Park, Y. Katoh, A. Kohyama, D.H. Kim, J.K. Lee and H.K. Yoon 307–311 (2002) 1191
- Development of 2D and 3D Hi-Nicalon fibres/SiC matrix composites manufactured by a combined CVI-PIP route, C.A. Nannetti, B. Riccardi, A. Ortona, A. La Barbera, E. Scafè and G. Vekinis 307–311 (2002) 1196
- Optimizing the fabrication process for superior mechanical properties in the FCVI SiC matrix/stoichiometric SiC fiber composite system, N. Igawa, T. Taguchi, L.L. Snead, Y. Katoh, S. Jitsukawa, A. Kohyama and J.C. McLaughlin 307–311 (2002) 1205
- Homogeneity and flexural properties of SiC/SiC composites prepared by CVI method, H. Araki, T. Noda, W. Yang and A. Kohyama 307–311 (2002) 1210
- Highly thermal conductive, sintered SiC fiber-reinforced 3D-SiC/SiC composites: experiments and finite-element analysis of the thermal diffusivity/conductivity, R. Yamada, N. Igawa, T. Taguchi and S. Jitsukawa 307–311 (2002) 1215
- Fabrication and characterization of SiC_p/SiC composite by CVI using the whiskering process, J. Yeon Park, H. Soo Hwang, W.-J. Kim, J. Il Kim, J. Hye Son, B. Jun Oh and D. Jin Choi 307–311 (2002) 1227
- Mechanical strength of an ITER coil insulation system under static and dynamic load after reactor irradiation, K. Bittner-Rohrhofer, K. Humer, H.W. Weber, K. Hamada, M. Sugimoto and K. Okuno 307–311 (2002) 1310
- Copper, Copper Alloys and Compounds**
- Prediction of plastic deformation of fiber-reinforced copper matrix composites, J.H. You and H. Bolt 307–311 (2002) 74
- Effect of periodic temperature variations on the microstructure of neutron-irradiated metals, S.J. Zinkle, N. Hashimoto, D.T. Hoelzer, A.L. Qualls, T. Muroga and B.N. Singh 307–311 (2002) 192
- Microstructure of neutron irradiated SS316L/DS-Cu joint, H. Watanabe, D.J. Edwards, Y. Aono and N. Yoshida 307–311 (2002) 335
- Effect of the bake-out regime on the recovery of properties of copper-based alloys and copper/steel joints, S.A. Fabritsiev and A.S. Pokrovsky 307–311 (2002) 431
- Post-irradiation annealing of neutron irradiated CuCrZr, D.J. Edwards, B.N. Singh, Q. Xu and P. Toft 307–311 (2002) 439
- Low void swelling in dispersion strengthened copper alloys under single-ion irradiation, M. Hatakeyama, H. Watanabe, M. Akiba and N. Yoshida 307–311 (2002) 444
- Specification of properties and design allowables for copper alloys used in HHF components of ITER, G.M. Kalinin, S.A. Fabritsiev, B.N. Singh, S. Tahtinen and S.J. Zinkle 307–311 (2002) 668
- Effect of heat treatments on the properties of CuCrZr alloys, A.D. Ivanov, A.K. Nikolaev, G.M. Kalinin and M.E. Rodin 307–311 (2002) 673
- Influence of the manufacturing heat cycles on the CuCrZr properties, M. Merola, A. Orsini, E. Visca, S. Libera, L.F. Moreschi, S. Storai, B. Panella, E. Campagnoli, G. Rusciaca and C. Bosco 307–311 (2002) 677
- Strength of copper alloys in high temperature environment, Y. Nomura, R. Suzuki and M. Saito 307–311 (2002) 681
- Statistical analysis of cluster production efficiency in MD simulations

- of cascades in copper, Yu.N. Osetsky, D.J. Bacon and B.N. Singh 307-311 (2002) 866
- Dose dependence of defect accumulation in neutron irradiated copper and iron, M. Eldrup, B.N. Singh, S.J. Zinkle, T.S. Byun and K. Farrell 307-311 (2002) 912
- Decay heat measurement of fusion related materials in an ITER-like neutron field, Y. Morimoto, K. Ochiai, F. Maekawa, M. Wada, T. Nishitani and H. Takeuchi 307-311 (2002) 1052
- Heat load test of Be/Cu joint for ITER first wall mock-ups, M. Uchida, E. Ishitsuka, T. Hatano, V. Barabash and H. Kawamura 307-311 (2002) 1533
- Development of Be/DSCu HIP bonding and thermo-mechanical evaluation, T. Hatano, T. Kuroda, V. Barabash and M. Enoeda 307-311 (2002) 1537
- Mechanical properties of HIP bonded W and Cu-alloys joint for plasma facing components, S. Saito, K. Fukaya, S. Ishiyama and K. Sato 307-311 (2002) 1542
- Properties of copper-stainless steel HIP joints before and after neutron irradiation, S. Tähtinen, A. Laukkanen, B.N. Singh and P. Toft 307-311 (2002) 1547
- Creep and Stress Relaxation**
- Creep behavior of reduced activation martensitic steel F82H injected with a large amount of helium, N. Yamamoto, Y. Murase, J. Nagakawa and K. Shiba 307-311 (2002) 217
- Evolution of the mechanical properties and microstructure of ferritic-martensitic steels irradiated in the BOR-60 reactor, V.K. Shamardin, V.N. Golovanov, T.M. Bulanova, A.V. Povstyanko, A.E. Fedoseev, Z.E. Ostrovsky and Yu.D. Goncharenko 307-311 (2002) 229
- Evaluation of in-pile and out-of-pile stress relaxation in 316L stainless steel under uniaxial loading, Y. Kaji, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, M. Yonekawa, J. Nakano, H. Tsuji and H. Nakajima 307-311 (2002) 331
- Effect of chemical composition on irradiation creep of stainless steels irradiated in the BOR-60 reactor at 420 °C, V.S. Neustroev and V.K. Shamardin 307-311 (2002) 343
- Microstructural examination of irradiated and unirradiated V-4Cr-4Ti pressurized creep tubes, D.S. Gelles 307-311 (2002) 393
- Uniaxial creep behavior of V-4Cr-4Ti alloy, K. Natesan, W.K. Soppet and A. Purohit 307-311 (2002) 585
- Investigating solute interactions in V-4Cr-4Ti based on tensile deformation behavior of vanadium, D.T. Hoelzer and A.F. Rowcliffe 307-311 (2002) 596
- High temperature performance of highly purified V-4Cr-4Ti alloy, NIFS-Heat1, K. Fukumoto, T. Yamamoto, N. Nakao, S. Takahashi and H. Matsui 307-311 (2002) 610
- Creep of V-4Cr-4Ti in a lithium environment, M.L. Grossbeck 307-311 (2002) 615
- Effects of strain rate on tensile properties of TZM and Mo-5%Re, G. Filacchioni, E. Casagrande, U. De Angelis, G. De Santis and D. Ferrara 307-311 (2002) 705
- Tensile and creep properties of an oxide dispersion-strengthened ferritic steel, R.L. Klueh, P.J. Maziasz, I.S. Kim, L. Heatherly, D.T. Hoelzer, N. Hashimoto, E.A. Kenik and K. Miyahara 307-311 (2002) 773
- Thermal creep of granular breeder materials in fusion blankets, L. Bühler and J. Reimann 307-311 (2002) 807
- Conditions for effects of radiation pulsing, H. Trinkaus and H. Ullmaier 307-311 (2002) 1705
- Crystallographic Properties**
- Change of thermal diffusivity and lattice constants of W-5% Re-HfC alloys irradiated in a fission reactor, M. Fujitsuka, I. Mutoh, T. Tanabe, B. Tsuchiya, M. Narui, T. Shikama and M. Sato 307-311 (2002) 426
- Defects and Defect Structures (excludes by Irradiation)**
- $\langle 100 \rangle$ -Loop characterization in α -Fe: comparison between experiments and modeling, J. Marian, B.D. Wirth, R. Schäublin, J.M. Perlado and T. Díaz de la Rubia 307-311 (2002) 871
- Modeling defect production in silica glass due to energetic recoils using molecular dynamics simulations, A. Kubota, M.-J. Caturla, S.A. Payne, T. Diaz de la Rubia and J.F. Latkowski 307-311 (2002) 891
- Evolution of a defect structure of Pd-Ag alloys during tritium exposure, V. Tebus, L. Rivkis, E. Dmitrievskaia, G. Arutunova, I. Golikov, N. Ryazantseva, V. Filin, V. Kapychev and V. Bulkin 307-311 (2002) 966
- Absence of saturation of void growth in rate theory with anisotropic diffusion, T.S. Hudson, S.L. Dudarev and A.P. Sutton 307-311 (2002) 976
- Correlating TEM images of damage in irradiated materials to molecular

- dynamics simulations, R. Schaeublin, M.-J. Caturla, M. Wall, T. Felter, M. Fluss, B.D. Wirth, T. Diaz de la Rubia and M. Victoria 307–311 (2002) 988
- Ab-initio study on interaction of hydrogen isotopes with charged defects in lithium oxide, H. Tanigawa and S. Tanaka 307–311 (2002) 1446
- Deformation**
- Prediction of plastic deformation of fiber-reinforced copper matrix composites, J.H. You and H. Bolt 307–311 (2002) 74
- Experiment-based modelling of hardening and localized plasticity in metals irradiated under cascade damage conditions, B.N. Singh, N.M. Ghoniem and H. Trinkaus 307–311 (2002) 159
- Investigating solute interactions in V–4Cr–4Ti based on tensile deformation behavior of vanadium, D.T. Hoelzer and A.F. Rowcliffe 307–311 (2002) 596
- Recent progress in small specimen test technology, G.E. Lucas, G.R. Odette, M. Sokolov, P. Spätig, T. Yamamoto and P. Jung 307–311 (2002) 1600
- Shear punch tests performed using a new low compliance test fixture, M.B. Toloczko, R.J. Kurtz, A. Hasegawa and K. Abe 307–311 (2002) 1619
- Diffusion**
- The effects of one-dimensional migration of self-interstitial clusters on the formation of void lattices, H.L. Heinisch and B.N. Singh 307–311 (2002) 876
- Deuterium transport in SiC_f/SiC composites, G.A. Esteban, A. Perujo, F. Legarda, L.A. Sedano and B. Riccardi 307–311 (2002) 1430
- Hydrogen bulk retention in graphite and kinetics of diffusion, H. Atsumi 307–311 (2002) 1466
- Some recent innovations in small specimen testing, G.R. Odette, M. He, D. Gragg, D. Klingensmith and G.E. Lucas 307–311 (2002) 1643
- Dislocations**
- Microstructural study of irradiated isotopically tailored F82H steel, E. Wakai, Y. Miwa, N. Hashimoto, J.P. Robertson, R.L. Klueh, K. Shiba, K. Abiko, S. Furuno and S. Jitsukawa 307–311 (2002) 203
- Formation process of dislocation loops in iron under irradiations with low-energy helium, hydrogen ions or high-energy electrons, K. Arakawa, H. Mori and K. Ono 307–311 (2002) 272
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Mechanical and microstructural behaviour of isothermally and thermally fatigued ferritic/martensitic steels, A.F. Armas, C. Petersen, R. Schmitt, M. Avalos and I. Alvarez-Armas 307–311 (2002) 509
- On the mechanical properties of the advanced martensitic steel EUROFER 97, P. Spätig, G.R. Odette, G.E. Lucas and M. Victoria 307–311 (2002) 536
- Tensile and creep properties of an oxide dispersion-strengthened ferritic steel, R.L. Klueh, P.J. Maziasz, I.S. Kim, L. Heatherly, D.T. Hoelzer, N. Hashimoto, E.A. Kenik and K. Miyahara 307–311 (2002) 773
- Mechanisms of dislocation-defect interactions in irradiated metals investigated by computer simulations, N.M. Ghoniem, S.H. Tong, J. Huang, B.N. Singh and M. Wen 307–311 (2002) 843
- Atomistic study of the generation, interaction, accumulation and annihilation of cascade-induced defect clusters, Yu.N. Osetsky, D.J. Bacon, B.N. Singh and B. Wirth 307–311 (2002) 852
- The effect of bias factor variations on void nucleation in irradiated alloys, V.A. Borodin, A.E. Volkov and A.I. Ryazanov 307–311 (2002) 862
- Point defect behavior in electron irradiated V–4Cr–4Ti alloy, Q. Xu, T. Yoshiie and H. Mori 307–311 (2002) 886
- Growth and instability of charged dislocation loops under irradiation in ceramic materials, A.I. Ryazanov, K. Yasuda, C. Kinoshita and A.V. Klapptsov 307–311 (2002) 918
- Effects of dislocation on thermal helium desorption from iron and ferritic steel, R. Sugano, K. Morishita, H. Iwakiri and N. Yoshida 307–311 (2002) 941
- In situ TEM observation of dislocation movement through the ultra-fine obstacles in an Fe alloy, K. Nogiwa, T. Yamamoto, K. Fukumoto, H. Matsui, Y. Nagai, K. Yubuta and M. Hasegawa 307–311 (2002) 946
- Study of fundamental features of bias effect in metals under irradiation, E. Kuramoto, K. Ohsawa and T. Tsutsumi 307–311 (2002) 982

Divertor Materials

- High heat flux performance of neutron irradiated plasma facing components, M. Rödiger, E. Ishitsuka, A. Gervash, H. Kawamura, J. Linke, N. Litunovski and M. Merola 307–311 (2002) 53
- Macroscopic erosion of divertor and first wall armour in future tokamaks, H. Würz, B. Bazylev, I. Landman, S. Pestchanyi and V. Safronov 307–311 (2002) 60
- Melt layer erosion of metallic armour targets during off-normal events in tokamaks, B. Bazylev and H. Wuerz 307–311 (2002) 69
- Non-destructive testing of CFC monoblock divertor mock-ups, K. Ezato, M. Dairaku, M. Taniguchi, K. Sato and M. Akiba 307–311 (2002) 144
- Influence of the manufacturing heat cycles on the CuCrZr properties, M. Merola, A. Orsini, E. Visca, S. Libera, L.F. Moreschi, S. Storai, B. Panella, E. Campagnoli, G. Rusciaca and C. Bosco 307–311 (2002) 677
- Material properties and consequences on the quality of core supra plasma facing components, J. Schlosser, A. Durocher, T. Huber, P. Chappuis, P. Garin, W. Knabl and B. Schelder 307–311 (2002) 686
- The effect of low temperature neutron irradiation and annealing on the thermal conductivity of advanced carbon-based materials, V. Barabash, I. Mazul, R. Latypov, A. Pokrovsky and C.H. Wu 307–311 (2002) 1300
- Overview on fabrication and joining of plasma facing and high heat flux materials for ITER, M. Merola, M. Akiba, V. Barabash and I. Mazul 307–311 (2002) 1524
- Strategy of fusion reactor materials R&D in China, J.P. Qian, Y.C. Wu and J.G. Li 307–311 (2002) 1637

Electrical Properties

- Electrical in situ 307–311 (2002) 1073
- Electrical conductivity of silicon carbide composites and fibers, R. Scholz, F. dos Santos Marques and B. Riccardi 307–311 (2002) 1098
- Effects of specimen thickness and impurity on the conductivity of alumina under electron irradiation, T. Higuchi, K. Shiyama, Y. Izumi, M.M.R. Howlader, M. Kutsuwada and C. Kinoshita 307–311 (2002) 1250
- Electrical and dielectric properties of irradiated KU1 quartz glass from DC to 145 GHz, R. Vila, J. Mollá,

- R. Heidinger, A. Moroño and E.R. Hodgson 307–311 (2002) 1273
- A model for radiation induced conductivity in neutral beam injector insulator gases, E.R. Hodgson and A. Moroño 307–311 (2002) 1660

Electron Irradiation

- High heat flux performance of neutron irradiated plasma facing components, M. Rödiger, E. Ishitsuka, A. Gervash, H. Kawamura, J. Linke, N. Litunovski and M. Merola 307–311 (2002) 53
- Simulation experimental investigation of plasma off-normal events on advanced silicon doped CFC-NS31, J.P. Bonal, C.H. Wu and D. Gosset 307–311 (2002) 100
- Effects of helium irradiation on high heat load properties of tungsten, K. Tokunaga, O. Yoshikawa, K. Makise and N. Yoshida 307–311 (2002) 130
- Formation process of dislocation loops in iron under irradiations with low-energy helium, hydrogen ions or high-energy electrons, K. Arakawa, H. Mori and K. Ono 307–311 (2002) 272
- Disruption tests on repaired tungsten by CVD coating, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama and M. Akiba 307–311 (2002) 719
- High heat load properties of high purity CVD tungsten, S. Tamura, K. Tokunaga and N. Yoshida 307–311 (2002) 735
- Point defect behavior in electron irradiated V-4Cr-4Ti alloy, Q. Xu, T. Yoshiie and H. Mori 307–311 (2002) 886
- Growth and instability of charged dislocation loops under irradiation in ceramic materials, A.I. Ryazanov, K. Yasuda, C. Kinoshita and A.V. Klaptsov 307–311 (2002) 918
- Effect of undersized solute atoms on point defect behavior in V-A (A=Fe, Cr and Si) binary alloys studied by using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 930
- Study of point defect behavior in V-Ti alloys using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 951
- In situ observation of glide motions of SIA-type loops in vanadium and V-5Ti under HVEM irradiation, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 993
- Atomistic dynamical observation of grain boundary structural changes under electron irradiation, N. Sakaguchi, T. Shibayama, H. Kinoshita and H. Takahashi 307–311 (2002) 1003

- Oxygen interstitial trapping in electron irradiated sapphire, A. Morono and E.R. Hodgson 307–311 (2002) 1246
- Effects of specimen thickness and impurity on the conductivity of alumina under electron irradiation, T. Higuchi, K. Shiyama, Y. Izumi, M.M.R. Howlader, M. Kutsuwada and C. Kinoshita 307–311 (2002) 1250
- Application of electron stimulated desorption for hydrogen removal from graphite, R. Ishida, T. Shibahara and T. Tanabe 307–311 (2002) 1502
- Heat load test of Be/Cu joint for ITER first wall mock-ups, M. Uchida, E. Ishitsuka, T. Hatano, V. Barabash and H. Kawamura 307–311 (2002) 1533
- Electron Microscopy**
- Microstructure of irradiated ferritic/martensitic steels in relation to mechanical properties, R. Schaeublin, D. Gelles and M. Victoria 307–311 (2002) 197
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Konobeev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Influence of temperature change on microstructure evolution in Ni alloys irradiated with neutrons, Q. Xu and T. Yoshiie 307–311 (2002) 380
- Effects of temperature change on microstructural evolution in vanadium alloys under ion irradiation up to high damage levels, N. Nita, T. Yamamoto, T. Iwai, K. Yasunaga, K. Fukumoto and H. Matbvsui 307–311 (2002) 398
- Microstructure evolution in D–T neutron irradiated silver, K. Sugio, H. Ohkubo, I. Mukouda, Y. Shimomura, C. Kutsukake and H. Takeuchi 307–311 (2002) 450
- Microstructure and mechanical properties of two ODS ferritic/martensitic steels, R. Schaeublin, T. Leguey, P. Spätig, N. Baluc and M. Victoria 307–311 (2002) 778
- In situ TEM observation of dislocation movement through the ultra-fine obstacles in an Fe alloy, K. Nogiwa, T. Yamamoto, K. Fukumoto, H. Matsui, Y. Nagai, K. Yubuta and M. Hasegawa 307–311 (2002) 946
- Correlating TEM images of damage in irradiated materials to molecular dynamics simulations, R. Schaeublin, M.-J. Caturla, M. Wall, T. Felter, M. Fluss, B.D. Wirth, T. Diaz de la Rubia and M. Victoria 307–311 (2002) 988
- Effect of simultaneous ion irradiation on microstructural change of SiC/SiC composites at high temperature, T. Taguchi, E. Wakai, N. Igawa, S. Nogami, L.L. Snead, A. Hasegawa and S. Jitsukawa 307–311 (2002) 1135
- TEM and EELS characterization of carbon dust and co-deposited layers from the TEXTOR tokamak, S. Muto, T. Tanabe, A. Hirota, M. Rubel, V. Philipps and T. Maruyama 307–311 (2002) 1289
- Embrittlement**
- Development of a non-destructive testing technique using ultrasonic wave for evaluation of irradiation embrittlement in nuclear materials, T. Ishii, N. Ooka, T. Hoshiya, H. Kobayashi, J. Saito, M. Niimi and H. Tsuji 307–311 (2002) 240
- High resistance to helium embrittlement in reduced activation martensitic steels, A. Kimura, R. Kasada, K. Morishita, R. Sugano, A. Hasegawa, K. Abe, T. Yamamoto, H. Matsui, N. Yoshida, B.D. Wirth and T.D. Rubia 307–311 (2002) 521
- Gas tungsten arc welding of vanadium alloys with impurity control, M.L. Grossbeck, J.F. King, T. Nagasaka and S.A. David 307–311 (2002) 1590
- Experimental Techniques**
- Development of a non-destructive testing technique using ultrasonic wave for evaluation of irradiation embrittlement in nuclear materials, T. Ishii, N. Ooka, T. Hoshiya, H. Kobayashi, J. Saito, M. Niimi and H. Tsuji 307–311 (2002) 240
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Recent progress in small specimen test technology, G.E. Lucas, G.R. Odette, M. Sokolov, P. Spätig, T. Yamamoto and P. Jung 307–311 (2002) 1600
- Development of piezoelectric ceramics driven fatigue testing machine for

- small specimens, S. Saito, K. Kikuchi, Y. Onishi and T. Nishino 307–311 (2002) 1609
- Some recent innovations in small specimen testing, G.R. Odette, M. He, D. Gragg, D. Klingensmith and G.E. Lucas 307–311 (2002) 1643
- Possible techniques for the detritiation of first wall materials from fusion machines, N. Bekris, C. Caldwell-Nichols, L. Doerr, M. Glugla, R.-D. Penzhorn and H. Ziegler 307–311 (2002) 1649
- A first step in the development of a powerful 14 MeV neutron source, A.A. Ivanov, E.P. Kruglyakov and Yu.A. Tsidulko 307–311 (2002) 1701
- Fabrication**
- ITER status, design and material objectives, R. Aymar and International Team 307–311 (2002) 1
- Fabrication using a levitation melting method of V-4Cr-4Ti-Si-Al-Y alloys and their mechanical properties, T. Chuto, M. Satou, A. Hasegawa, K. Abe, T. Nagasaka and T. Muroga 307–311 (2002) 555
- Material properties and consequences on the quality of tore supra plasma facing components, J. Schlosser, A. Durocher, T. Huber, P. Chappuis, P. Garin, W. Knabl and B. Schedler 307–311 (2002) 686
- Consolidation process study of 9Cr-ODS martensitic steels, S. Ukai, K. Hatakeyama, S. Mizuta, M. Fujiwara and T. Okuda 307–311 (2002) 758
- Fabrication of Li₂TiO₃ pebbles by the extrusion-spheronisation-sintering process, J.D. Lulewicz and N. Roux 307–311 (2002) 803
- Effects of fibers and fabrication processes on mechanical properties of neutron irradiated SiC/SiC composites, T. Nozawa, T. Hinoki, Y. Katoh and A. Kohyama 307–311 (2002) 1173
- Optimizing the fabrication process for superior mechanical properties in the FCVI SiC matrix/stoichiometric SiC fiber composite system, N. Igawa, T. Taguchi, L.L. Snead, Y. Katoh, S. Jitsukawa, A. Kohyama and J.C. McLaughlin 307–311 (2002) 1205
- Fabrication and characterization of SiC_f/SiC composite by CVI using the whiskering process, J. Yeon Park, H. Soo Hwang, W.-J. Kim, J. Il Kim, J. Hye Son, B. Jun Oh and D. Jin Choi 307–311 (2002) 1227
- TORÉ SUPRA experience of copper chromium zirconium electron beam welding, A. Durocher, M. Lipa, Ph. Chappuis, J. Schlosser, T. Huber and B. Schedler 307–311 (2002) 1554
- Fast Reactor Materials**
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Konobeev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Heat resistant reduced activation 12% Cr steel of 16Cr12W2VTaB type-advanced structural material for fusion and fast breeder power reactors, A.G. Ioltukhovskiy, M.V. Leonteva-Smirnova, M.I. Solonin, V.M. Chernov, V.N. Golovanov, V.K. Shamardin, T.M. Bulanova, A.V. Povstyanko and A.E. Fedoseev 307–311 (2002) 532
- Growth and instability of charged dislocation loops under irradiation in ceramic materials, A.I. Ryazanov, K. Yasuda, C. Kinoshita and A.V. Klaptsov 307–311 (2002) 918
- Fatigue**
- High heat flux performance of neutron irradiated plasma facing components, M. Rödiger, E. Ishitsuka, A. Gervash, H. Kawamura, J. Linke, N. Litunovski and M. Merola 307–311 (2002) 53
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Radiation effects on low cycle fatigue properties of reduced activation ferritic/martensitic steels, T. Hirose, H. Tanigawa, M. Ando, A. Kohyama, Y. Katoh and M. Narui 307–311 (2002) 304
- Irradiation behaviour of titanium alloys for ITER blanket modules flexible attachment, B.S. Rodchenkov, A.V. Kozlov, Yu.G. Kuznetsov, G.M. Kalinin and Yu.S. Strebkov 307–311 (2002) 421
- Thermo-mechanical fatigue behavior of reduced activation ferrite/martensite stainless steels, C. Petersen and D. Rodrian 307–311 (2002) 500
- Mechanical and microstructural behaviour of isothermally and thermally fatigued ferritic/martensitic steels, A.F. Armas, C. Petersen, R. Schmitt, M. Avalos and I. Alvarez-Armas 307–311 (2002) 509

- Comparison of in-beam fatigue behavior between austenitic and ferritic steels at 60 °C, Y. Murase, J. Nagakawa and N. Yamamoto 307–311 (2002) 527
- High temperature performance of highly purified V–4Cr–4Ti alloy, NIFS-Heat1, K. Fukumoto, T. Yamamoto, N. Nakao, S. Takahashi and H. Matsui 307–311 (2002) 610
- Overview on fabrication and joining of plasma facing and high heat flux materials for ITER, M. Merola, M. Akiba, V. Barabash and I. Mazul 307–311 (2002) 1524
- Recent progress in small specimen test technology, G.E. Lucas, G.R. Odette, M. Sokolov, P. Spätig, T. Yamamoto and P. Jung 307–311 (2002) 1600
- Development of piezoelectric ceramics driven fatigue testing machine for small specimens, S. Saito, K. Kikuchi, Y. Onishi and T. Nishino 307–311 (2002) 1609
- Development of a remote-controlled fatigue test machine using a laser extensometer for investigation of irradiation effect on fatigue properties, M. Yonekawa, T. Ishii, M. Ohmi, F. Takada, T. Hoshiya, M. Niimi, I. Ioka, Y. Miwa and H. Tsuji 307–311 (2002) 1613
- First Wall Materials**
- Plasma facing and high heat flux materials – needs for ITER and beyond, H. Bolt, V. Barabash, G. Federici, J. Linke, A. Loarte, J. Roth and K. Sato 307–311 (2002) 43
- Melt layer erosion of metallic armour targets during off-normal events in tokamaks, B. Bazylev and H. Wuerz 307–311 (2002) 69
- Development of tungsten coated first wall and high heat flux components for application in ASDEX Upgrade, H. Maier, J. Luthin, M. Balden, S. Lindig, J. Linke, V. Rohde, H. Bolt and ASDEX Upgrade Team 307–311 (2002) 116
- Microstructural examination of irradiated and unirradiated V–4Cr–4Ti pressurized creep tubes, D.S. Gelles 307–311 (2002) 393
- Metallurgical properties of reduced activation martensitic steel Eurofer'97 in the as-received condition and after thermal ageing, P. Fernández, A.M. Lancha, J. Lapeña, M. Serrano and M. Hernández-Mayoral 307–311 (2002) 495
- Thermo-mechanical fatigue behavior of reduced activation ferrite/martensite stainless steels, C. Petersen and D. Rodrian 307–311 (2002) 500
- The zero waste option: clearance of activated and first wall/blanket materials, A. Ciampichetti, P. Rocco and M. Zucchetti 307–311 (2002) 1047
- Hydrogen bulk retention in graphite and kinetics of diffusion, H. Atsumi 307–311 (2002) 1466
- HIP experiments on the first wall and cooling plate specimens for the EU HCPB blanket, P. Norajitra, G. Reimann, R. Ruprecht and L. Schäfer 307–311 (2002) 1558
- The ARBOR irradiation project, C. Petersen, V. Shamardin, A. Fedoseev, G. Shimansky, V. Efimov and J. Rensman 307–311 (2002) 1655
- Fracture and Fracture Toughness**
- Experimental determination of the effect of helium on the fracture toughness of steel, L.L. Snead, R.E. Stoller, M.A. Sokolov and S. Maloy 307–311 (2002) 187
- Tensile properties and transition behaviour of RAFM steel plate and welds irradiated up to 10 dpa at 300 °C, J. Rensman, J. van Hoesen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 245
- Tensile and fracture toughness properties of unirradiated and neutron irradiated titanium alloys, S. Tähtinen, P. Moilanen, B.N. Singh and D.J. Edwards 307–311 (2002) 416
- Irradiation behaviour of titanium alloys for ITER blanket modules flexible attachment, B.S. Rodchenkov, A.V. Kozlov, Yu.G. Kuznetsov, G.M. Kalinin and Yu.S. Strebkov 307–311 (2002) 421
- Tensile and fracture toughness properties of MA957: implications to the development of nanocomposited ferritic alloys, M.J. Alinger, G.R. Odette and G.E. Lucas 307–311 (2002) 484
- Effects of precipitation morphology on toughness of reduced activation ferritic/martensitic steels, H. Sakasegawa, T. Hirose, A. Kohyama, Y. Katoh, T. Harada, K. Asakura and T. Kumagai 307–311 (2002) 490
- Hydride formation and fracture of vanadium alloys, P. Torres, K. Aoyagi, T. Suda, S. Watanabe and S. Ohnuki 307–311 (2002) 625
- On the transition toughness of two RA martensitic steels in the irradiation hardening regime: a mechanism-based evaluation, G.R. Odette,

- H.J. Rathbun, J.W. Rensman and F.P. van den Broek 307–311 (2002) 1011
- Towards a micro-mechanical description of the fracture behaviour for RAFM steels in the ductile-to-brittle transition regime, H. Riesch-Oppermann and E. Diegele 307–311 (2002) 1021
- Recent progress in small specimen test technology, G.E. Lucas, G.R. Odette, M. Sokolov, P. Spätig, T. Yamamoto and P. Jung 307–311 (2002) 1600
- Some recent innovations in small specimen testing, G.R. Odette, M. He, D. Gragg, D. Klingensmith and G.E. Lucas 307–311 (2002) 1643
- Fusion Reactor Materials**
- ITER status, design and material objectives, R. Aymar and International Team 307–311 (2002) 1
- Long-term fusion strategy in Europe, K. Lackner, R. Andreani, D. Campbell, M. Gasparotto, D. Maisonnier and M.A. Pick 307–311 (2002) 10
- Scientific and engineering advances from fusion materials R&D, S.J. Zinkle, M. Victoria and K. Abe 307–311 (2002) 31
- Experiment-based modelling of hardening and localized plasticity in metals irradiated under cascade damage conditions, B.N. Singh, N.M. Ghoniem and H. Trinkaus 307–311 (2002) 159
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Kono-beev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Heat resistant reduced activation 12% Cr steel of 16Cr12W2VTaB type-advanced structural material for fusion and fast breeder power reactors, A.G. Ioltukhovskiy, M.V. Leonteva-Smirnova, M.I. Solonin, V.M. Chernov, V.N. Golovanov, V.K. Shamardin, T.M. Bulanova, A.V. Povstyanko and A.E. Fedoseev 307–311 (2002) 532
- Uniaxial creep behavior of V–4Cr–4Ti alloy, K. Natesan, W.K. Soppet and A. Purohit 307–311 (2002) 585
- Creep of V–4Cr–4Ti in a lithium environment, M.L. Grossbeck 307–311 (2002) 615
- Flux dependence of deuterium retention in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 307–311 (2002) 723
- Modeling defect production in silica glass due to energetic recoils using molecular dynamics simulations, A. Kubota, M.-J. Caturla, S.A. Payne, T. Diaz de la Rubia and J.F. Latkowski 307–311 (2002) 891
- Effects of impurities on low activation characteristics of V–4Cr–4Ti alloy, Y. Wu, T. Muroga, Q. Huang, Y. Chen, T. Nagasaka and A. Sagara 307–311 (2002) 1026
- Radiation damage parameters for modelling of FRM irradiation conditions at the RADEX facility of INR RAS, E.A. Koptelov, S.G. Lebedev, N.M. Sobolevsky, Yu.S. Strebkov and A.V. Subbotin 307–311 (2002) 1042
- Control of the nitrogen concentration in liquid lithium by the hot trap method, T. Sakurai, T. Yoneoka, S. Tanaka, A. Suzuki and T. Muroga 307–311 (2002) 1380
- Overview on fabrication and joining of plasma facing and high heat flux materials for ITER, M. Merola, M. Akiba, V. Barabash and I. Mazul 307–311 (2002) 1524
- Neutron irradiation effect on the mechanical properties of type 316L SS welded joints, S. Saito, K. Fukaya, S. Ishiyama, H. Amezawa, M. Yonekawa, F. Takada, Y. Kato, T. Takeda, H. Takahashi and M. Nakahira 307–311 (2002) 1573
- The fusion-driven hybrid system and its material selection, Y.C. Wu, J.P. Qian and J.N. Yu 307–311 (2002) 1629
- Strategy of fusion reactor materials R&D in China, J.P. Qian, Y.C. Wu and J.G. Li 307–311 (2002) 1637
- The ARBOR irradiation project, C. Petersen, V. Shamardin, A. Fedoseev, G. Shimansky, V. Efimov and J. Rensman 307–311 (2002) 1655
- Status of activities on the lithium target in the key element technology phase in IFMIF, H. Nakamura, L. Burgazzi, S. Cevolani, G. Dell’Orco, C. Fazio, D. Giusti, H. Horiike, M. Ida, H. Kakui, N. Loginov, H. Matsui, T. Muroga, H. Nakamura, B. Riccardi, H. Takeuchi and S. Tanaka 307–311 (2002) 1675
- Water jet flow simulation and lithium free surface flow experiments for the IFMIF target, M. Ida, H. Horiike, M. Akiba, K. Ezato, T. Iida, S. Inoue, S. Miyamoto, T. Muroga, H. Nakamura, H.

- Nakamura, H. Nakamura, A. Suzuki, H. Takeuchi, N. Uda and N. Yamaoka 307–311 (2002) 1686
- Issues to be verified by IFMIF prototype accelerator for engineering validation, M. Sugimoto, T. Imai, Y. Okumura, K. Nakayama, S. Suzuki and M. Saigusa 307–311 (2002) 1691
- Application of the IEAF-2001 activation data library to activation analyses of the IFMIF high flux test module, U. Fischer, P.P.H. Wilson, D. Leichtle, S.P. Simakov, U.v. Möllendorff, A. Konobeev, Yu. Korovin, P. Pereslvtsev and I. Schmuck 307–311 (2002) 1696
- Gamma Irradiation**
- In situ luminescence and optical absorption measurements of silica in reactor core, T. Yoshida, T. Ii, T. Tanabe, H. Yoshida and K. Yamaguchi 307–311 (2002) 1268
- Round-robin irradiation test of radiation resistant optical fibers for ITER diagnostic application, T. Kakuta, T. Shikama, T. Nishitani, B. Brichard, A. Krassilnikov, A. Tomashuk, S. Yamamoto and S. Kasai 307–311 (2002) 1277
- Gases in Materials** (*excludes Hydrogen, Helium and Tritium*)
- A model for radiation induced conductivity in neutral beam injector insulator gases, E.R. Hodgson and A. Morono 307–311 (2002) 1660
- Grain Boundaries**
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Effect of thermal cycling on impurity grain boundary segregation in maraging steel, A.M. Ilyin, I.L. Tazhibaeva and B.A. Borisov 307–311 (2002) 475
- Perspective of ODS alloys application in nuclear environments, S. Ukai and M. Fujiwara 307–311 (2002) 749
- Atomistic dynamical observation of grain boundary structural changes under electron irradiation, N. Sakaguchi, T. Shibayama, H. Kinoshita and H. Takahashi 307–311 (2002) 1003
- Heat Treatment**
- Investigation of heat treatment conditions on the structure of 12% chromium reduced activation steels, M.V. Leonteva-Smirnova, A.G. Ioltukhovskiy, G.A. Arutiunova, A.V. Tselishev and V.M. Chernov 307–311 (2002) 466
- Behavior of Eurofer97 reduced activation martensitic steel upon heating and continuous cooling, A. Danón and A. Alamo 307–311 (2002) 479
- In situ phase characterization in tempering and aging of Fe–Cr–W steels, N. Inoue, T. Muroga, A. Nishimura, K. Oguri, H. Yabe, S. Uchida and Y. Nishi 307–311 (2002) 505
- Effect of heat treatments on the properties of CuCrZr alloys, A.D. Ivanov, A.K. Nikolaev, G.M. Kalinin and M.E. Rodin 307–311 (2002) 673
- Comparative study: sensitization development in hot-isostatic-pressed cast and wrought structures type 316L(N)-IG stainless steel under isothermal heat treatment, K.I. Shutko and V.N. Belous 307–311 (2002) 1016
- Helium**
- Effects of helium irradiation on high heat load properties of tungsten, K. Tokunaga, O. Yoshikawa, K. Makise and N. Yoshida 307–311 (2002) 130
- Effects of helium bombardment on the deuterium behavior in tungsten, H. Iwakiri, K. Morishita and N. Yoshida 307–311 (2002) 135
- Experimental determination of the effect of helium on the fracture toughness of steel, L.L. Snead, R.E. Stoller, M.A. Sokolov and S. Maloy 307–311 (2002) 187
- Recent results for the ferritics isotopic tailoring (FIST) experiment, D.S. Gelles, M.L. Hamilton, B.M. Oliver, L.R. Greenwood, S. Ohnuki, K. Shiba, Y. Kohno, A. Kohyama and J.P. Robertson 307–311 (2002) 212
- Creep behavior of reduced activation martensitic steel F82H injected with a large amount of helium, N. Yamamoto, Y. Murase, J. Nagakawa and K. Shiba 307–311 (2002) 217
- Pros and cons of nickel- and boron-doping to study helium effects in ferritic/martensitic steels, N. Hashimoto, R.L. Klueh and K. Shiba 307–311 (2002) 222
- Radiation effects on low cycle fatigue properties of reduced activation ferritic/martensitic steels, T. Hirose, H. Tanigawa, M. Ando, A. Kohyama, Y. Katoh and M. Narui 307–311 (2002) 304
- Effect of weld thermal cycle, stress and helium content on helium bubble formation in stainless steels, S.

- Kawano, F. Kano, C. Kinoshita, A. Hasegawa and K. Abe 307-311 (2002) 327
- Microstructure development and helium behavior in nickel and vanadium base alloys, A.N. Kalashnikov, I.I. Chernov, B.A. Kalin and S.Yu. Binyukova 307-311 (2002) 362
- High resistance to helium embrittlement in reduced activation martensitic steels, A. Kimura, R. Kasada, K. Morishita, R. Sugano, A. Hasegawa, K. Abe, T. Yamamoto, H. Matsui, N. Yoshida, B.D. Wirth and T.D. Rubia 307-311 (2002) 521
- Effects of dislocation on thermal helium desorption from iron and ferritic steel, R. Sugano, K. Morishita, H. Iwakiri and N. Yoshida 307-311 (2002) 941
- The influences of irradiation temperature and helium production on the dimensional stability of silicon carbide, Y. Katoh, H. Kishimoto and A. Kohyama 307-311 (2002) 1221
- Helium and tritium kinetics in irradiated beryllium pebbles, E. Rabaglino, J.P. Hiernaut, C. Ronchi and F. Scaffidi-Argentina 307-311 (2002) 1424
- Helium and hydrogen generation in pure metals irradiated with high-energy protons and spallation neutrons in LANSCE, B.M. Oliver, M.R. James, F.A. Garner and S.A. Maloy 307-311 (2002) 1471
- Helium analysis from the DHCE-1 simulation experiment, D.L. Smith and H. Matsui 307-311 (2002) 1488
- Formation and migration of helium bubbles in Fe and Fe-9Cr ferritic alloy, K. Ono, K. Arakawa and K. Hojou 307-311 (2002) 1507
- Helium and hydrogen trapping in W and Mo single-crystals irradiated by He ions, S. Nagata, B. Tsuchiya, T. Sugawara, N. Ohtsu and T. Shikama 307-311 (2002) 1513
- Hydrogen and helium entrapment in flowing liquid metal plasma-facing surfaces, A. Hassanein 307-311 (2002) 1517
- Hydrogen and Hydrides** (*includes Deuterium and Deuterides*)
- Deuterium release and microstructure of tantalum-tungsten twin limiter exposed in TEXTOR-94, T. Hirai, V. Philipps, T. Tanabe, M. Wada, A. Huber, S. Brezinsek, J. von Seggern, J. Linke, T. Ohgo, K. Ohya, P. Wienhold, A. Pospieszczyk and G. Sergienko 307-311 (2002) 79
- Overview of fuel retention in composite and tungsten limiters, M. Rubel, V. Philipps, A. Pospieszczyk, T. Tanabe and S. Kötterl 307-311 (2002) 111
- Effects of helium bombardment on the deuterium behavior in tungsten, H. Iwakiri, K. Morishita and N. Yoshida 307-311 (2002) 135
- Recent results for the ferritics isotopic tailoring (FIST) experiment, D.S. Gelles, M.L. Hamilton, B.M. Oliver, L.R. Greenwood, S. Ohnuki, K. Shiba, Y. Kohno, A. Kohyama and J.P. Robertson 307-311 (2002) 212
- The influence of hydrogen on tensile properties of V-base alloys developed in China, J. Chen, Z. Xu and L. Yang 307-311 (2002) 566
- Hydrogen solubility in V-4Cr-4Ti alloy, R.E. Buxbaum, D.L. Smith and J.-H. Park 307-311 (2002) 576
- Hydride formation and fracture of vanadium alloys, P. Torres, K. Aoyagi, T. Suda, S. Watanabe and S. Ohnuki 307-311 (2002) 625
- Effect of substrate temperature on microstructure and deuterium retention of molybdenum co-deposition with oxygen, M. Miyamoto, T. Hirai, K. Tokunaga, T. Fujiwara and N. Yoshida 307-311 (2002) 710
- Flux dependence of deuterium retention in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 307-311 (2002) 723
- Effects of helium irradiation on chemical behavior of energetic deuterium in SiC, T. Sugiyama, Y. Morimoto, K. Iguchi, K. Okuno, M. Miyamoto, H. Iwakiri and N. Yoshida 307-311 (2002) 1080
- Microstructure and deuterium content of tokamak T-10 carbon erosion products, P.V. Romanov, B.N. Kolbasov, V.Kh. Alimov, V.M. Gureev, A.G. Domantovskij, L.N. Khimchenko and P.N. Orlov 307-311 (2002) 1294
- Steam oxidation of PFC materials for advanced tokamaks, R.A. Anderl, R.J. Pawelko, G.R. Smolik, G. Piazza, F. Scaffidi-Argentina and L.L. Snead 307-311 (2002) 1375
- Hydrogen release from 800 MeV proton-irradiated tungsten, B.M. Oliver, T.J. Venhaus, R.A. Causey, F.A. Garner and S.A. Maloy 307-311 (2002) 1418
- Deuterium transport in SiC_f/SiC composites, G.A. Esteban, A. Perujo, F. Legarda, L.A. Sedano and B. Riccardi 307-311 (2002) 1430
- Ab-initio study on interaction of hydrogen isotopes with charged

- defects in lithium oxide, H. Tanigawa and S. Tanaka 307–311 (2002) 1446
- Hydrogen bulk retention in graphite and kinetics of diffusion, H. Atsumi 307–311 (2002) 1466
- Helium and hydrogen generation in pure metals irradiated with high-energy protons and spallation neutrons in LANSCE, B.M. Oliver, M.R. James, F.A. Garner and S.A. Maloy 307–311 (2002) 1471
- Cellular automaton model for hydrogen transport dynamics through metallic surface, K. Shimura, K. Yamaguchi, T. Terai and M. Yamawaki 307–311 (2002) 1478
- Permeation of deuterium and tritium through the martensitic steel F82H, Yu.N. Dolinsky, Yu.N. Zouev, I.A. Lyasota, I.V. Saprykin and V.V. Sagaradze 307–311 (2002) 1484
- Gas driven deuterium permeation through F82H martensitic steel, V. Shestakov, A. Pisarev, V. Sobolev, S. Kulsartov and I. Tazhibaeva 307–311 (2002) 1494
- Application of electron stimulated desorption for hydrogen removal from graphite, R. Ishida, T. Shibahara and T. Tanabe 307–311 (2002) 1502
- Helium and hydrogen trapping in W and Mo single-crystals irradiated by He ions, S. Nagata, B. Tsuchiya, T. Sugawara, N. Ohtsu and T. Shikama 307–311 (2002) 1513
- Hydrogen and helium entrapment in flowing liquid metal plasma-facing surfaces, A. Hassanein 307–311 (2002) 1517
- Hydrogen permeation through metal membrane with protective coating in contact with atomic or ionized hydrogen, V.M. Sharapov 307–311 (2002) 1520
- Impurities**
- Heat load to a tantalum–tungsten twin-test-limiter and the effect to high-Z core plasma concentration of TEXTOR-94, T. Ohgo, M. Wada, A. Pospieszczyk, W. Biel, K. Kondo, T. Tanabe, T. Hirai, V. Philipps, A. Huber, G. Sergienko, B. Schweer, G. Bertschinger and N. Noda 307–311 (2002) 149
- Vanadium alloys – overview and recent results, T. Muroga, T. Nagasaka, K. Abe, V.M. Chernov, H. Matsui, D.L. Smith, Z.-Y. Xu and S.J. Zinkle 307–311 (2002) 547
- Influence of alloying and impurity element contents on V–Ti–Cr alloy properties, V.A. Evtikhin, I.E. Lyublinski, A.V. Vertkov, S.N. Votinov and A.I. Dedyurin 307–311 (2002) 591
- Investigating solute interactions in V–4Cr–4Ti based on tensile deformation behavior of vanadium, D.T. Hoelzer and A.F. Rowcliffe 307–311 (2002) 596
- Effect of impurity levels on precipitation behavior in the low-activation V–4Cr–4Ti alloys, N.J. Heo, T. Nagasaka, T. Muroga and H. Matsui 307–311 (2002) 620
- Elemental characterisation of beryllium and electrical behaviour of their pebbles beds, E. Alves, M.R. da Silva, L.C. Alves, F. Scaffidi-Argentina and J.C. Soares 307–311 (2002) 643
- Effects of impurities on low activation characteristics of V–4Cr–4Ti alloy, Y. Wu, T. Muroga, Q. Huang, Y. Chen, T. Nagasaka and A. Sagara 307–311 (2002) 1026
- Control of the nitrogen concentration in liquid lithium by the hot trap method, T. Sakurai, T. Yoneoka, S. Tanaka, A. Suzuki and T. Muroga 307–311 (2002) 1380
- Ion Irradiation**
- Modification of tungsten coated carbon by low energy and high flux deuterium irradiation, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 307–311 (2002) 126
- Creep behavior of reduced activation martensitic steel F82H injected with a large amount of helium, N. Yamamoto, Y. Murase, J. Nagakawa and K. Shiba 307–311 (2002) 217
- Evaluation of hardening behaviour of ion irradiated reduced activation ferritic/martensitic steels by an ultra-micro-indentation technique, M. Ando, H. Tanigawa, S. Jitsukawa, T. Sawai, Y. Katoh, A. Kohyama, K. Nakamura and H. Takeuchi 307–311 (2002) 260
- Microstructural evolution in modified 9Cr–1Mo ferritic/martensitic steel irradiated with mixed high-energy proton and neutron spectra at low temperatures, B.H. Sencer, F.A. Garner, D.S. Gelles, G.M. Bond and S.A. Maloy 307–311 (2002) 266
- Formation process of dislocation loops in iron under irradiations with low-energy helium, hydrogen ions or high-energy electrons, K. Arakawa, H. Mori and K. Ono 307–311 (2002) 272
- Effect of triple ion beams in ferritic/martensitic steel on swelling behavior, E. Wakai, T. Sawai, K. Fur-

- uya, A. Naito, T. Aruga, K. Kikuchi, S. Yamashita, S. Ohnuki, S. Yamamoto, H. Naramoto and S. Jitsukawa 307–311 (2002) 278
- Void swelling in reduced activation ferritic/martensitic steels under ion-beam irradiation to high fluences, H. Ogiwara, H. Sakasegawa, H. Tanigawa, M. Ando, Y. Katoh and A. Kohyama 307–311 (2002) 299
- Evaluation of radiation hardening in Fe alloys under heavy ion irradiation by micro-indentation technique, N. Sekimura, T. Kamada, Y. Wakasugi, T. Okita and Y. Arai 307–311 (2002) 308
- Swelling behavior of TIG-welded F82H IEA heat, T. Sawai, E. Wakai, T. Tomita, A. Naito and S. Jitsukawa 307–311 (2002) 312
- Effect of weld thermal cycle, stress and helium content on helium bubble formation in stainless steels, S. Kawano, F. Kano, C. Kinoshita, A. Hasegawa and K. Abe 307–311 (2002) 327
- Microstructure development and helium behavior in nickel and vanadium base alloys, A.N. Kalashnikov, I.I. Chernov, B.A. Kalin and S.Yu. Binyukova 307–311 (2002) 362
- Effect of solute atoms on swelling in Ni alloys and pure Ni under He⁺ ion irradiation, E. Wakai, T. Ezawa, J. Imamura, T. Takenaka, T. Tanabe and R. Oshima 307–311 (2002) 367
- The microstructure and tensile properties of pure Ni single crystal irradiated with high energy protons, Z. Yao, R. Schäublin and M. Victoria 307–311 (2002) 374
- Effects of temperature change on microstructural evolution in vanadium alloys under ion irradiation up to high damage levels, N. Nita, T. Yamamoto, T. Iwai, K. Yasunaga, K. Fukumoto and H. Matsui 307–311 (2002) 398
- Oxide formation of a purified V-4Cr-4Ti alloy during heat treatment and ion irradiation, H. Watanabe, M. Suda, T. Muroga and N. Yoshida 307–311 (2002) 408
- Microstructure in vanadium irradiated by simultaneous multi-ion beam of hydrogen, helium and nickel ions, I. Mukouda, Y. Shimomura, D. Yamaki, T. Nakazawa, T. Aruga and S. Jitsukawa 307–311 (2002) 412
- Low void swelling in dispersion strengthened copper alloys under single-ion irradiation, M. Hatakeyama, H. Watanabe, M. Akiba and N. Yoshida 307–311 (2002) 444
- Studies on retention of tritium implanted into tungsten by β -ray-induced X-ray spectrometry, M. Matsuyama, T. Murai, K. Yoshida, K. Watanabe, H. Iwakiri and N. Yoshida 307–311 (2002) 729
- Growth and instability of charged dislocation loops under irradiation in ceramic materials, A.I. Ryazanov, K. Yasuda, C. Kinoshita and A.V. Klapptsov 307–311 (2002) 918
- The effect of free surfaces on cascade damage production in iron, R.E. Stoller 307–311 (2002) 935
- Effects of dislocation on thermal helium desorption from iron and ferritic steel, R. Sugano, K. Morishita, H. Iwakiri and N. Yoshida 307–311 (2002) 941
- The effect of hydrogen and helium on microvoid formation in iron and nickel, T. Ishizaki, Q. Xu, T. Yoshiie, S. Nagata and T. Troev 307–311 (2002) 961
- Phase transformation in the γ -TiAl alloy induced by Ar ions, M. Song, K. Mitsuishi, M. Takeguchi, K. Furuya, T. Tanabe and T. Noda 307–311 (2002) 971
- Analytical model of radiation-induced precipitation at the surface of dilute binary alloy, V.A. Pechenkin, I.A. Stepanov and Yu.V. Konobeev 307–311 (2002) 998
- Effects of helium irradiation on chemical behavior of energetic deuterium in SiC, T. Sugiyama, Y. Morimoto, K. Iguchi, K. Okuno, M. Miyamoto, H. Iwakiri and N. Yoshida 307–311 (2002) 1080
- Surface blistering of ion irradiated SiC studied by grazing incidence electron microscopy, S. Igarashi, S. Muto and T. Tanabe 307–311 (2002) 1126
- Microstructural stability of SiC and SiC/SiC composites under high temperature irradiation environment, H. Kishimoto, Y. Katoh and A. Kohyama 307–311 (2002) 1130
- Effect of simultaneous ion irradiation on microstructural change of SiC/SiC composites at high temperature, T. Taguchi, E. Wakai, N. Igawa, S. Nogami, L.L. Snead, A. Hasegawa and S. Jitsukawa 307–311 (2002) 1135
- Experimental simulation of the effect of transmuted helium on the mechanical properties of silicon carbide, L.L. Snead, R. Scholz, A. Hasegawa and A. Frias Rebelo 307–311 (2002) 1141
- Mechanical property change and swelling behavior of SiC fiber after light-ion irradiation, A. Hasegawa, S. Nogami, T. Aizawa, K. Katou and K. Abe 307–311 (2002) 1152

- Analysis of possible deformation mechanisms in helium-ion irradiated SiC, S. Nogami, S. Ohtsuka, M.B. Toloczko, A. Hasegawa and K. Abe 307–311 (2002) 1178
- Light ion irradiation creep of Textron SCS-6™ silicon carbide fibers, R. Scholz, R. Mueller and D. Lesueur 307–311 (2002) 1183
- Evaluation of dual-ion irradiated β -SiC by means of indentation methods, K.H. Park, Y. Katoh, H. Kishimoto and A. Kohyama 307–311 (2002) 1187
- Hydrogen release from 800 MeV proton-irradiated tungsten, B.M. Oliver, T.J. Venhaus, R.A. Causey, F.A. Garner and S.A. Maloy 307–311 (2002) 1418
- Helium and hydrogen generation in pure metals irradiated with high-energy protons and spallation neutrons in LANSCE, B.M. Oliver, M.R. James, F.A. Garner and S.A. Maloy 307–311 (2002) 1471
- Formation and migration of helium bubbles in Fe and Fe-9Cr ferritic alloy, K. Ono, K. Arakawa and K. Hojou 307–311 (2002) 1507
- Helium and hydrogen trapping in W and Mo single-crystals irradiated by He ions, S. Nagata, B. Tsuchiya, T. Sugawara, N. Ohtsu and T. Shikama 307–311 (2002) 1513
- Iron, Iron alloys and Compounds** (*excludes Steels*)
- Formation process of dislocation loops in iron under irradiations with low-energy helium, hydrogen ions or high-energy electrons, K. Arakawa, H. Mori and K. Ono 307–311 (2002) 272
- Evaluation of radiation hardening in Fe alloys under heavy ion irradiation by micro-indentation technique, N. Sekimura, T. Kamada, Y. Wakasugi, T. Okita and Y. Arai 307–311 (2002) 308
- $\langle 100 \rangle$ -Loop characterization in α -Fe: comparison between experiments and modeling, J. Marian, B.D. Wirth, R. Schäublin, J.M. Perlado and T. Díaz de la Rubia 307–311 (2002) 871
- Dose dependence of defect accumulation in neutron irradiated copper and iron, M. Eldrup, B.N. Singh, S.J. Zinkle, T.S. Byun and K. Farrell 307–311 (2002) 912
- The effect of free surfaces on cascade damage production in iron, R.E. Stoller 307–311 (2002) 935
- Effects of dislocation on thermal helium desorption from iron and ferritic steel, R. Sugano, K. Morishita, H. Iwakiri and N. Yoshida 307–311 (2002) 941
- In situ TEM observation of dislocation movement through the ultra-fine obstacles in an Fe alloy, K. Nogiwa, T. Yamamoto, K. Fukumoto, H. Matsui, Y. Nagai, K. Yubuta and M. Hasegawa 307–311 (2002) 946
- The effect of hydrogen and helium on microvoid formation in iron and nickel, T. Ishizaki, Q. Xu, T. Yoshiie, S. Nagata and T. Troev 307–311 (2002) 961
- Study of fundamental features of bias effect in metals under irradiation, E. Kuramoto, K. Ohsawa and T. Tsutsumi 307–311 (2002) 982
- Irradiation** (*not listed elsewhere, includes Irradiation History or Schedule*)
- High heat flux performance of neutron irradiated plasma facing components, M. Rödig, E. Ishitsuka, A. Gervash, H. Kawamura, J. Linke, N. Litunovski and M. Merola 307–311 (2002) 53
- The effect of low temperature neutron irradiation and annealing on the thermal conductivity of advanced carbon-based materials, V. Barabash, I. Mazul, R. Latypov, A. Pokrovsky and C.H. Wu 307–311 (2002) 1300
- Re-weldability tests of irradiated 316L(N) stainless steel using laser welding technique, H. Yamada, H. Kawamura, K. Tsuchiya, G. Kalinin, W. Kohno and Y. Morishima 307–311 (2002) 1584
- Joining** (*includes Welding, Brazing, Soldering*)
- Microstructure and hardness of HIP-bonded regions in F82H blanket structures, K. Furuya, E. Wakai, M. Ando, T. Sawai, K. Nakamura, H. Takeuchi and A. Iwabuchi 307–311 (2002) 289
- Microstructure of neutron irradiated SS316L/DS-Cu joint, H. Watanabe, D.J. Edwards, Y. Aono and N. Yoshida 307–311 (2002) 335
- Irradiation-assisted SCC susceptibility of HIPed 316LN-IG stainless steel irradiated at 473 K to 1 dpa, Y. Miwa, T. Tsukada, H. Tsuji and S. Jitsukawa 307–311 (2002) 347
- Silicon carbide-based materials for joining silicon carbide composites for fusion energy applications, C.A. Lewinsohn, R.H. Jones, P. Colombo and B. Riccardi 307–311 (2002) 1232
- Low activation brazing materials and techniques for SiC_f/SiC composites, B. Riccardi, C.A. Nannetti, T. Petrisor and M. Sacchetti 307–311 (2002) 1237
- Hydrogen permeability over the joint weld of the steel parts of fusion reactor with magnet confinement

- of plasma, V.V. Fedorov, E.V. Dyomina, T.M. Zasadny, L.I. Ivanov, M.D. Prusakova, N.A. Vinogradova and A.M. Zabelin 307–311 (2002) 1498
- Heat load test of Be/Cu joint for ITER first wall mock-ups, M. Uchida, E. Ishitsuka, T. Hatano, V. Barabash and H. Kawamura 307–311 (2002) 1533
- Development of Be/DSCu HIP bonding and thermo-mechanical evaluation, T. Hatano, T. Kuroda, V. Barabash and M. Enoeda 307–311 (2002) 1537
- Mechanical properties of HIP bonded W and Cu-alloys joint for plasma facing components, S. Saito, K. Fukaya, S. Ishiyama and K. Sato 307–311 (2002) 1542
- Properties of copper–stainless steel HIP joints before and after neutron irradiation, S. Tähtinen, A. Laukkanen, B.N. Singh and P. Toft 307–311 (2002) 1547
- TORE SUPRA experience of copper chromium zirconium electron beam welding, A. Durocher, M. Lipa, Ph. Chappuis, J. Schlosser, T. Huber and B. Schedler 307–311 (2002) 1554
- HIP experiments on the first wall and cooling plate specimens for the EU HCPB blanket, P. Norajitra, G. Reimann, R. Ruprecht and L. Schäfer 307–311 (2002) 1558
- Structural and mechanical properties of welded joints of reduced activation martensitic steels, G. Filacchioni, R. Montanari, M.E. Tata and L. Pilloni 307–311 (2002) 1563
- Characterization of 316L(N)-IG SS joint produced by hot isostatic pressing technique, J. Nakano, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, Y. Nemoto, H. Tsuji and S. Jitsukawa 307–311 (2002) 1568
- Neutron irradiation effect on the mechanical properties of type 316L SS welded joints, S. Saito, K. Fukaya, S. Ishiyama, H. Amezawa, M. Yonekawa, F. Takada, Y. Kato, T. Takeda, H. Takahashi and M. Nakahira 307–311 (2002) 1573
- Re-weldability of neutron-irradiated stainless steels studied by multi-pass TIG welding, K. Nakata, M. Oishi, M. Koshiishi, T. Hashimoto, H. Anzai, Y. Saito and W. Kono 307–311 (2002) 1578
- Re-weldability tests of irradiated 316L(N) stainless steel using laser welding technique, H. Yamada, H. Kawamura, K. Tsuchiya, G. Kalinin, W. Kohno and Y. Morishima 307–311 (2002) 1584
- Gas tungsten arc welding of vanadium alloys with impurity control, M.L. Grossbeck, J.F. King, T. Nagasaka and S.A. David 307–311 (2002) 1590
- Effects of post-weld heat treatment conditions on hardness, microstructures and impact properties of vanadium alloys, T. Nagasaka, T. Muroga, M.L. Grossbeck and T. Yamamoto 307–311 (2002) 1595
- Kinetics**
- Dissolution kinetics of intermetallics in aging austenitic steels during neutron irradiation, V.V. Sagaradze, V.M. Koloskov, B.N. Goshchitskii and V.A. Shabashov 307–311 (2002) 317
- Fabrication and properties of a tin–lithium alloy, K. Natesan and W.E. Ruther 307–311 (2002) 743
- The effects of one-dimensional migration of self-interstitial clusters on the formation of void lattices, H.L. Heinisch and B.N. Singh 307–311 (2002) 876
- Modeling of void nucleation under cascade damage conditions, H. Trinkaus and B.N. Singh 307–311 (2002) 900
- Effect of catalytic metals on tritium release from ceramic breeder materials, K. Munakata, Y. Yokoyama, A. Koga, N. Nakashima, S. Beloglazov, T. Takeishi, M. Nishikawa, R.-D. Penzhorn, K. Kawamoto, H. Moriyama, Y. Morimoto and K. Okuno 307–311 (2002) 1451
- Limiter Materials**
- Deuterium release and microstructure of tantalum–tungsten twin limiter exposed in TEXTOR-94, T. Hirai, V. Philipps, T. Tanabe, M. Wada, A. Huber, S. Brezinsek, J. von Seggern, J. Linke, T. Ohgo, K. Ohya, P. Wienhold, A. Pospieszczyk and G. Sergienko 307–311 (2002) 79
- Overview of fuel retention in composite and tungsten limiters, M. Rubel, V. Philipps, A. Pospieszczyk, T. Tanabe and S. Kötterl 307–311 (2002) 111
- Heat load to a tantalum–tungsten twin-test-limiter and the effect to high-Z core plasma concentration of TEXTOR-94, T. Ohgo, M. Wada, A. Pospieszczyk, W. Biel, K. Kondo, T. Tanabe, T. Hirai, V. Philipps, A. Huber, G. Sergienko, B. Schweer, G. Bertschinger and N. Noda 307–311 (2002) 149
- Liquid Metals**
- Breeding blanket concepts for fusion and materials requirements, A.R. Raffray, M. Akiba, V. Chuyanov, L. Giancarli and S. Malang 307–311 (2002) 21

- Creep of V-4Cr-4Ti in a lithium environment, M.L. Grossbeck 307-311 (2002) 615
- Vaporization properties of the Sn-25 at.%Li alloy, R.A. Anderl, D.D. Jenson and G.F. Kessinger 307-311 (2002) 739
- Development of coatings for fusion power applications, D.L. Smith, J. Kony, T. Muroga and V. Evitkhin 307-311 (2002) 1314
- Development of CaO coatings by thermal and chemical vapor deposition, K. Natesan, M. Uz and D.L. Smith 307-311 (2002) 1323
- Temperature limits on the compatibility of insulating ceramics in lithium, B.A. Pint, J.H. DeVan and J.R. DiStefano 307-311 (2002) 1344
- Corrosion behaviour of Al based tritium permeation barriers in flowing Pb-17Li, H. Glasbrenner, J. Kony, Z. Voss and O. Wedemeyer 307-311 (2002) 1360
- Mechanical and corrosion behaviour of EUROFER 97 steel exposed to Pb-17Li, G. Benamati, C. Fazio and I. Ricapito 307-311 (2002) 1391
- Wetting of Fe-7.5%Cr steel by molten Pb and Pb-17Li, P. Protsenko, A. Terlain, M. Jeymond and N. Eustathopoulos 307-311 (2002) 1396
- Kinetic features of the component interaction in the V[O]-Li[Ca] system, O.I. Yeliseyeva, V.M. Chernov and T.V. Tsaran 307-311 (2002) 1400
- Hydrogen and helium entrapment in flowing liquid metal plasma-facing surfaces, A. Hassanein 307-311 (2002) 1517
- Neutron radiation effects of the center conductor post in a spherical tokamak reactor, J. Yu, Y. Wu, J. Sha, Q. Huang and Y. Ke 307-311 (2002) 1670
- Status of activities on the lithium target in the key element technology phase in IFMIF, H. Nakamura, L. Burgazzi, S. Cevolani, G. Dell'Orco, C. Fazio, D. Giusti, H. Horiike, M. Ida, H. Kakui, N. Loginov, H. Matsui, T. Muroga, H. Nakamura, B. Riccardi, H. Takeuchi and S. Tanaka 307-311 (2002) 1675
- Water jet flow simulation and lithium free surface flow experiments for the IFMIF target, M. Ida, H. Horiike, M. Akiba, K. Ezato, T. Iida, S. Inoue, S. Miyamoto, T. Muroga, H. Nakamura, H. Nakamura, H. Nakamura, A. Suzuki, H. Takeuchi, N. Uda and N. Yamaoka 307-311 (2002) 1686
- Experimental studies on the neutron emission spectrum and induced radioactivity of the $^7\text{Li}(d,n)$ reaction in the 20-40 MeV region, M. Baba, T. Aoki, M. Hagiwara, M. Sugimoto, T. Miura, N. Kawata, A. Yamadera and H. Orihara 307-311 (2002) 1715
- Low Activation Materials (includes Reduced Activation)**
- Characteristics of unirradiated and 60 °C, 2.7 dpa irradiated Eurofer97, J. Rensman, H.E. Hofmans, E.W. Schuring, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307-311 (2002) 250
- Microstructure and hardness of HIP-bonded regions in F82H blanket structures, K. Furuya, E. Wakai, M. Ando, T. Sawai, K. Nakamura, H. Takeuchi and A. Iwabuchi 307-311 (2002) 289
- Thermo-mechanical fatigue behavior of reduced activation ferrite/martensite stainless steels, C. Petersen and D. Rodrian 307-311 (2002) 500
- Fabrication using a levitation melting method of V-4Cr-4Ti-Si-Al-Y alloys and their mechanical properties, T. Chuto, M. Satou, A. Hasegawa, K. Abe, T. Nagasaka and T. Muroga 307-311 (2002) 555
- Performance of V-4Cr-4Ti material exposed to the DIII-D tokamak environment, H. Tsai, W.R. Johnson, Y. Yan, P.W. Trester, A. Bozek, J.F. King and D.L. Smith 307-311 (2002) 605
- The effect of pre-deformation on the ductility of chromium, R. Wadsack, R. Pippin and B. Schedler 307-311 (2002) 701
- Gas tungsten arc welding of vanadium alloys with impurity control, M.L. Grossbeck, J.F. King, T. Nagasaka and S.A. David 307-311 (2002) 1590
- Application of the IEAF-2001 activation data library to activation analyses of the IFMIF high flux test module, U. Fischer, P.P.H. Wilson, D. Leichtle, S.P. Simakov, U.v. Möllendorff, A. Konobeev, Yu. Korovin, P. Pereslavtsev and I. Schmuck 307-311 (2002) 1696
- Mathematical and Computational Methods**
- Experimental and computer investigation of the diagnostic mirror behavior under sputtering and duct material deposition, V.V. Bاندourko, E.A. Gridneva, N.N. Koborov, V.A. KurnaeV, D.V. Levchuk, S.S. Levchuk, N.N. Trifonov and A.V. Zhuravlev 307-311 (2002) 154
- Displacement damage parameters for fusion breeder blanket materials based on BCA computer simulations, D. Leichtle 307-311 (2002) 793

- The effects of one-dimensional migration of self-interstitial clusters on the formation of void lattices, H.L. Heinisch and B.N. Singh 307–311 (2002) 876
- Multiscale modeling study of pulsed damage accumulation in α -Fe under inertial fusion conditions, J.M. Perlado, D. Lodi, E. Domínguez, J. Prieto, M.J. Caturla and T. Díaz de la Rubia 307–311 (2002) 907
- Correlating TEM images of damage in irradiated materials to molecular dynamics simulations, R. Schaeublin, M.-J. Caturla, M. Wall, T. Felter, M. Fluss, B.D. Wirth, T. Diaz de la Rubia and M. Victoria 307–311 (2002) 988
- Molecular dynamics simulation of vanadium using an interatomic potential fitted to finite temperature properties, M. Satou, S. Yip and K. Abe 307–311 (2002) 1007
- Towards a micro-mechanical description of the fracture behaviour for RAFM steels in the ductile-to-brittle transition regime, H. Riesch-Oppermann and E. Diegele 307–311 (2002) 1021
- Mechanical Properties (not listed elsewhere)**
- Development of an extensive database of mechanical and physical properties for reduced-activation martensitic steel F82H, S. Jitsukawa, M. Tamura, B. van der Schaaf, R.L. Klueh, A. Alamo, C. Petersen, M. Schirra, P. Spaetig, G.R. Odette, A.A. Tavassoli, K. Shiba, A. Kohyama and A. Kimura 307–311 (2002) 179
- Recent results for the ferritics isotopic tailoring (FIST) experiment, D.S. Gelles, M.L. Hamilton, B.M. Oliver, L.R. Greenwood, S. Ohnuki, K. Shiba, Y. Kohno, A. Kohyama and J.P. Robertson 307–311 (2002) 212
- Pros and cons of nickel- and boron-doping to study helium effects in ferritic/martensitic steels, N. Hashimoto, R.L. Klueh and K. Shiba 307–311 (2002) 222
- Assessment of mechanical properties of the martensitic steel EURO-FER97 by means of punch tests, Y. Ruan, P. Spätig and M. Victoria 307–311 (2002) 236
- Development of a non-destructive testing technique using ultrasonic wave for evaluation of irradiation embrittlement in nuclear materials, T. Ishii, N. Ooka, T. Hoshiya, H. Kobayashi, J. Saito, M. Niimi and H. Tsuji 307–311 (2002) 240
- Tensile properties and transition behaviour of RAFM steel plate and welds irradiated up to 10 dpa at 300 °C, J. Rensman, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 245
- Tensile response of low activation ferritic steels irradiated in ORR at temperatures in the range 60–400 °C, M.L. Hamilton and D.S. Gelles 307–311 (2002) 256
- Effect of weld thermal cycle, stress and helium content on helium bubble formation in stainless steels, S. Kawano, F. Kano, C. Kinoshita, A. Hasegawa and K. Abe 307–311 (2002) 327
- Tensile and fracture toughness properties of unirradiated and neutron irradiated titanium alloys, S. Tähtinen, P. Moilanen, B.N. Singh and D.J. Edwards 307–311 (2002) 416
- Irradiation behaviour of titanium alloys for ITER blanket modules flexible attachment, B.S. Rodchenkov, A.V. Kozlov, Yu.G. Kuznetsov, G.M. Kalinin and Yu.S. Strebkov 307–311 (2002) 421
- Investigation of heat treatment conditions on the structure of 12% chromium reduced activation steels, M.V. Leonteva-Smirnova, A.G. Ioltukhovskiy, G.A. Arutiunova, A.V. Tselishev and V.M. Chernov 307–311 (2002) 466
- Thermal fatigue crack propagation behaviour of F82H ferritic steel, Y. Kudo, K. Kikuchi and M. Saito 307–311 (2002) 471
- Tensile and fracture toughness properties of MA957: implications to the development of nano-composited ferritic alloys, M.J. Alinger, G.R. Odette and G.E. Lucas 307–311 (2002) 484
- Metallurgical properties of reduced activation martensitic steel Eurofer'97 in the as-received condition and after thermal ageing, P. Fernández, A.M. Lancha, J. Lapeña, M. Serrano and M. Hernández-Mayoral 307–311 (2002) 495
- In situ phase characterization in tempering and aging of Fe–Cr–W steels, N. Inoue, T. Muroga, A. Nishimura, K. Oguri, H. Yabe, S. Uchida and Y. Nishi 307–311 (2002) 505
- Modelling of the effect of precipitates on work-hardening, ductility and impact behaviour of ferritic-martensitic Cr steels, D. Preininger 307–311 (2002) 514
- On the mechanical properties of the advanced martensitic steel EURO-FER 97, P. Spätig, G.R. Odette, G.E. Lucas and M. Victoria 307–311 (2002) 536

- The effect of hot isostatic pressing parameters on microstructure and mechanical properties of Eurofer powder HIPed material, J.M. Gentzittel, I. Chu and H. Burlet 307–311 (2002) 540
- Vanadium alloys – overview and recent results, T. Muroga, T. Nagasaka, K. Abe, V.M. Chernov, H. Matsui, D.L. Smith, Z.-Y. Xu and S.J. Zinkle 307–311 (2002) 547
- Fabrication using a levitation melting method of V–4Cr–4Ti–Si–Al–Y alloys and their mechanical properties, T. Chuto, M. Satou, A. Hasegawa, K. Abe, T. Nagasaka and T. Muroga 307–311 (2002) 555
- Oxygen embrittlement of vanadium alloys with and without surface oxide formation, B.A. Pint and J.R. DiStefano 307–311 (2002) 560
- The influence of hydrogen on tensile properties of V-base alloys developed in China, J. Chen, Z. Xu and L. Yang 307–311 (2002) 566
- Fracture properties of high-purity V–4Cr–4Ti alloy (NIFS-HEAT-2) at room temperature, A. Nishimura, T. Nagasaka and T. Muroga 307–311 (2002) 571
- Performance of V–4Cr–4Ti material exposed to the DIII-D tokamak environment, H. Tsai, W.R. Johnson, Y. Yan, P.W. Trester, A. Bozek, J.F. King and D.L. Smith 307–311 (2002) 605
- High temperature performance of highly purified V–4Cr–4Ti alloy, NIFS-Heat1, K. Fukumoto, T. Yamamoto, N. Nakao, S. Takahashi and H. Matsui 307–311 (2002) 610
- Specification of properties and design allowables for copper alloys used in HHF components of ITER, G.M. Kalinin, S.A. Fabritziev, B.N. Singh, S. Tahtinen and S.J. Zinkle 307–311 (2002) 668
- Effect of heat treatments on the properties of CuCrZr alloys, A.D. Ivanov, A.K. Nikolaev, G.M. Kalinin and M.E. Rodin 307–311 (2002) 673
- Discontinuously reinforced titanium matrix composites for fusion applications, V. de Castro, T. Leguey, M.A. Monge, A. Muñoz, R. Pareja and M. Victoria 307–311 (2002) 691
- The effect of pre-deformation on the ductility of chromium, R. Wadsack, R. Pippan and B. Schedler 307–311 (2002) 701
- Effects of strain rate on tensile properties of TZM and Mo–5%Re, G. Filacchioni, E. Casagrande, U. De Angelis, G. De Santis and D. Ferrara 307–311 (2002) 705
- Perspective of ODS alloys application in nuclear environments, S. Ukai and M. Fujiwara 307–311 (2002) 749
- Mechanical and microstructural properties of a hiped RAFM ODS-steel, R. Lindau, A. Möslang, M. Schirra, P. Schlossmacher and M. Klimenkov 307–311 (2002) 769
- Tensile and creep properties of an oxide dispersion-strengthened ferritic steel, R.L. Klueh, P.J. Maziasz, I.S. Kim, L. Heatherly, D.T. Hoelzer, N. Hashimoto, E.A. Kenik and K. Miyahara 307–311 (2002) 773
- Characterisation of ceramic breeder materials for the helium cooled pebble bed blanket, G. Piazza, J. Reimann, E. Günther, R. Knitter, N. Roux and J.D. Lulewicz 307–311 (2002) 811
- Influence of neutron irradiation on the strength characteristics of lithium ceramic pellets for fusion reactor blankets, V. Kapychev, V. Tebus and V. Frolov 307–311 (2002) 823
- Numerical simulation of ceramic breeder pebble bed thermal creep behavior, A. Ying, H. Huang and M. Abdou 307–311 (2002) 827
- In situ TEM observation of dislocation movement through the ultra-fine obstacles in an Fe alloy, K. Nogiwa, T. Yamamoto, K. Fukumoto, H. Matsui, Y. Nagai, K. Yubuta and M. Hasegawa 307–311 (2002) 946
- Promise and challenges of SiC_f/SiC composites for fusion energy applications, R.H. Jones, L. Giancarli, A. Hasegawa, Y. Katoh, A. Kohyama, B. Riccardi, L.L. Snead and W.J. Weber 307–311 (2002) 1057
- Interfacial characterization of CVI-SiC/SiC composites, W. Yang, A. Kohyama, T. Noda, Y. Katoh, T. Hinoki, H. Araki and J. Yu 307–311 (2002) 1088
- High-temperature tensile strength of near-stoichiometric SiC/SiC composites, K. Hironaka, T. Nozawa, T. Hinoki, N. Igawa, Y. Katoh, L.L. Snead and A. Kohyama 307–311 (2002) 1093
- The effect of high dose/high temperature irradiation on high purity fibers and their silicon carbide composites, T. Hinoki, L.L. Snead, Y. Katoh, A. Hasegawa, T. Nozawa and A. Kohyama 307–311 (2002) 1157
- Process, microstructure and flexural properties of reaction sintered Tyranno SA/SiC composites, S.P. Lee, J.S. Park, Y. Katoh, A. Kohyama, D.H. Kim, J.K. Lee and H.K. Yoon 307–311 (2002) 1191

- Optimizing the fabrication process for superior mechanical properties in the FCVI SiC matrix/stoichiometric SiC fiber composite system, N. Igawa, T. Taguchi, L.L. Snead, Y. Katoh, S. Jitsukawa, A. Kohyama and J.C. McLaughlin 307–311 (2002) 1205
- Homogeneity and flexural properties of SiC/SiC composites prepared by CVI method, H. Araki, T. Noda, W. Yang and A. Kohyama 307–311 (2002) 1210
- Mechanical strength of neutron-irradiated window materials, R. Heindinger 307–311 (2002) 1254
- Mechanical strength of an ITER coil insulation system under static and dynamic load after reactor irradiation, K. Bittner-Rohrhofer, K. Humer, H.W. Weber, K. Hamada, M. Sugimoto and K. Okuno 307–311 (2002) 1310
- Characterization of hydrogen barrier coatings for titanium-base alloys, T. Leguey, N. Baluc, F. Jansen and M. Victoria 307–311 (2002) 1329
- Mechanical properties of HIP bonded W and Cu-alloys joint for plasma facing components, S. Saito, K. Fukaya, S. Ishiyama and K. Sato 307–311 (2002) 1542
- Structural and mechanical properties of welded joints of reduced activation martensitic steels, G. Filacchioni, R. Montanari, M.E. Tata and L. Pilloni 307–311 (2002) 1563
- Characterization of 316L(N)-IG SS joint produced by hot isostatic pressing technique, J. Nakano, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, Y. Nemoto, H. Tsuji and S. Jitsukawa 307–311 (2002) 1568
- Effects of post-weld heat treatment conditions on hardness, microstructures and impact properties of vanadium alloys, T. Nagasaka, T. Muroga, M.L. Grossbeck and T. Yamamoto 307–311 (2002) 1595
- Development of a remote-controlled fatigue test machine using a laser extensometer for investigation of irradiation effect on fatigue properties, M. Yonekawa, T. Ishii, M. Ohmi, F. Takada, T. Hoshiya, M. Niimi, I. Ioka, Y. Miwa and H. Tsuji 307–311 (2002) 1613
- Shear punch tests performed using a new low compliance test fixture, M.B. Toloczko, R.J. Kurtz, A. Hasegawa and K. Abe 307–311 (2002) 1619
- Micromechanical modeling of master curve temperature shifts due to constraint loss, G.R. Odette and M.Y. He 307–311 (2002) 1624
- Some recent innovations in small specimen testing, G.R. Odette, M. He, D. Gragg, D. Klingensmith and G.E. Lucas 307–311 (2002) 1643
- Metals, Alloys and Compounds** (*not listed elsewhere*)
- Microstructure evolution in D–T neutron irradiated silver, K. Sugio, H. Ohkubo, I. Mukouda, Y. Shimomura, C. Kutsukake and H. Takeuchi 307–311 (2002) 450
- Investigation of heat treatment conditions on the structure of 12% chromium reduced activation steels, M.V. Leonteva-Smirnova, A.G. Ioltukhovskiy, G.A. Arutunova, A.V. Tselishev and V.M. Chernov 307–311 (2002) 466
- Fabrication and properties of a tin–lithium alloy, K. Natesan and W.E. Ruther 307–311 (2002) 743
- Evolution of a defect structure of Pd–Ag alloys during tritium exposure, V. Tebus, L. Rivkis, E. Dmitrievskaia, G. Arutunova, I. Golikov, N. Ryazantseva, V. Filin, V. Kapychev and V. Bulkin 307–311 (2002) 966
- Shear punch tests performed using a new low compliance test fixture, M.B. Toloczko, R.J. Kurtz, A. Hasegawa and K. Abe 307–311 (2002) 1619
- Microstructure and Texture** (*excludes by Irradiation*)
- Characteristics of unirradiated and 60 °C, 2.7 dpa irradiated Eurofer97, J. Rensman, H.E. Hofmans, E.W. Schuring, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 250
- Microstructural examination of irradiated and unirradiated V–4Cr–4Ti pressurized creep tubes, D.S. Gelles 307–311 (2002) 393
- Effects of precipitation morphology on toughness of reduced activation ferritic/martensitic steels, H. Sakasegawa, T. Hirose, A. Kohyama, Y. Katoh, T. Harada, K. Asakura and T. Kumagai 307–311 (2002) 490
- Metallurgical properties of reduced activation martensitic steel Eurofer'97 in the as-received condition and after thermal ageing, P. Fernández, A.M. Lancha, J. Lapeña, M. Serrano and M. Hernández-Mayoral 307–311 (2002) 495
- Mechanical and microstructural behaviour of isothermally and thermally fatigued ferritic/martensitic steels, A.F. Armas, C. Petersen, R. Schmitt, M. Avalos and I. Alvarez-Armas 307–311 (2002) 509

- The effect of hot isostatic pressing parameters on microstructure and mechanical properties of Eurofer powder HIPed material, J.M. Gentzbittel, I. Chu and H. Burlet 307–311 (2002) 540
- Fracture properties of high-purity V–4Cr–4Ti alloy (NIFS-HEAT-2) at room temperature, A. Nishimura, T. Nagasaka and T. Muroga 307–311 (2002) 571
- Effect of impurity levels on precipitation behavior in the low-activation V–4Cr–4Ti alloys, N.J. Heo, T. Nagasaka, T. Muroga and H. Matsui 307–311 (2002) 620
- Consolidation process study of 9Cr-ODS martensitic steels, S. Ukai, K. Hatakeyama, S. Mizuta, M. Fujiwara and T. Okuda 307–311 (2002) 758
- Mechanical and microstructural properties of a hiped RAFM ODS-steel, R. Lindau, A. Möslang, M. Schirra, P. Schlossmacher and M. Klimenkov 307–311 (2002) 769
- Atomistic dynamical observation of grain boundary structural changes under electron irradiation, N. Sakaguchi, T. Shibayama, H. Kinoshita and H. Takahashi 307–311 (2002) 1003
- Towards a micro-mechanical description of the fracture behaviour for RAFM steels in the ductile-to-brittle transition regime, H. Riesch-Oppermann and E. Diegele 307–311 (2002) 1021
- Effect of simultaneous ion irradiation on microstructural change of SiC/SiC composites at high temperature, T. Taguchi, E. Wakai, N. Igawa, S. Nogami, L.L. Snead, A. Hasegawa and S. Jitsukawa 307–311 (2002) 1135
- Process, microstructure and flexural properties of reaction sintered Tyranno SA/SiC composites, S.P. Lee, J.S. Park, Y. Katoh, A. Kohyama, D.H. Kim, J.K. Lee and H.K. Yoon 307–311 (2002) 1191
- Development of 2D and 3D Hi-Nicalon fibres/SiC matrix composites manufactured by a combined CVI–PIP route, C.A. Nannetti, B. Riccardi, A. Ortona, A. La Barbera, E. Scafè and G. Vekinis 307–311 (2002) 1196
- Fabrication and characterization of SiC_f/SiC composite by CVI using the whiskering process, J. Yeon Park, H. Soo Hwang, W.-J. Kim, J. Il Kim, J. Hye Son, B. Jun Oh and D. Jin Choi 307–311 (2002) 1227
- Silicon carbide-based materials for joining silicon carbide composites for fusion energy applications, C.A. Lewinsohn, R.H. Jones, P. Colombo and B. Riccardi 307–311 (2002) 1232
- Low activation brazing materials and techniques for SiC_f/SiC composites, B. Riccardi, C.A. Nannetti, T. Petrisor and M. Sacchetti 307–311 (2002) 1237
- Microstructure and deuterium content of tokamak T-10 carbon erosion products, P.V. Romanov, B.N. Kolbasov, V.Kh. Alimov, V.M. Gureev, A.G. Domantovskij, L.N. Khimchenko and P.N. Orlov 307–311 (2002) 1294
- Structural and mechanical properties of welded joints of reduced activation martensitic steels, G. Filacchioni, R. Montanari, M.E. Tata and L. Pilloni 307–311 (2002) 1563
- Molybdenum, Molybdenum Alloys and Compounds**
- Effects of strain rate on tensile properties of TZM and Mo–5%Re, G. Filacchioni, E. Casagrande, U. De Angelis, G. De Santis and D. Ferrara 307–311 (2002) 705
- Effect of substrate temperature on microstructure and deuterium retention of molybdenum co-deposition with oxygen, M. Miyamoto, T. Hirai, K. Tokunaga, T. Fujiwara and N. Yoshida 307–311 (2002) 710
- Isotope separation of silicon and molybdenum using a free electron laser, T. Noda, H. Suzuki, H. Araki, J.L. Lyman and B.E. Newnam 307–311 (2002) 715
- High heat load properties of high purity CVD tungsten, S. Tamura, K. Tokunaga and N. Yoshida 307–311 (2002) 735
- Corrosion resistance of refractory metals in high-temperature water, Y. Ishijima, K. Kakiuchi, T. Furuya, H. Kurishita, M. Hasegawa, T. Igarashi and M. Kawai 307–311 (2002) 1369
- Helium and hydrogen trapping in W and Mo single-crystals irradiated by He ions, S. Nagata, B. Tsuchiya, T. Sugawara, N. Ohtsu and T. Shikama 307–311 (2002) 1513
- Monitoring Methods**
- Shear punch tests performed using a new low compliance test fixture, M.B. Toloczko, R.J. Kurtz, A. Hasegawa and K. Abe 307–311 (2002) 1619
- Neutron Irradiation**
- Effect of periodic temperature variations on the microstructure of neutron-irradiated metals, S.J. Zinkle, N. Hashimoto, D.T. Hoelzer, A.L. Qualls, T. Muroga and B.N. Singh 307–311 (2002) 192

- Microstructural study of irradiated isotopically tailored F82H steel, E. Wakai, Y. Miwa, N. Hashimoto, J.P. Robertson, R.L. Klueh, K. Shiba, K. Abiko, S. Furuno and S. Jitsukawa 307–311 (2002) 203
- Pros and cons of nickel- and boron-doping to study helium effects in ferritic/martensitic steels, N. Hashimoto, R.L. Klueh and K. Shiba 307–311 (2002) 222
- Evolution of the mechanical properties and microstructure of ferritic–martensitic steels irradiated in the BOR-60 reactor, V.K. Shamardin, V.N. Golovanov, T.M. Bulanova, A.V. Povstyanko, A.E. Fedoseev, Z.E. Ostrovsky and Yu.D. Goncharenko 307–311 (2002) 229
- Development of a non-destructive testing technique using ultrasonic wave for evaluation of irradiation embrittlement in nuclear materials, T. Ishii, N. Ooka, T. Hoshiya, H. Kobayashi, J. Saito, M. Niimi and H. Tsuji 307–311 (2002) 240
- Tensile properties and transition behaviour of RAFM steel plate and welds irradiated up to 10 dpa at 300 °C, J. Rensman, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 245
- Microstructural evolution in modified 9Cr–1Mo ferritic/martensitic steel irradiated with mixed high-energy proton and neutron spectra at low temperatures, B.H. Sencer, F.A. Garner, D.S. Gelles, G.M. Bond and S.A. Maloy 307–311 (2002) 266
- Phase stability of oxide dispersion-strengthened ferritic steels in neutron irradiation, S. Yamashita, K. Oka, S. Ohnuki, N. Akasaka and S. Ukai 307–311 (2002) 283
- Radiation effects on low cycle fatigue properties of reduced activation ferritic/martensitic steels, T. Hirose, H. Tanigawa, M. Ando, A. Kohyama, Y. Katoh and M. Narui 307–311 (2002) 304
- Dissolution kinetics of intermetallics in aging austenitic steels during neutron irradiation, V.V. Sagaradze, V.M. Koloskov, B.N. Goshchitskii and V.A. Shabashov 307–311 (2002) 317
- The primary origin of dose rate effects on microstructural evolution of austenitic alloys during neutron irradiation, T. Okita, T. Sato, N. Sekimura, F.A. Garner and L.R. Greenwood 307–311 (2002) 322
- Evaluation of in-pile and out-of-pile stress relaxation in 316L stainless steel under uniaxial loading, Y. Kaji, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, M. Yonekawa, J. Nakano, H. Tsuji and H. Nakajima 307–311 (2002) 331
- Microstructure of neutron irradiated SS316L/DS-Cu joint, H. Watanabe, D.J. Edwards, Y. Aono and N. Yoshida 307–311 (2002) 335
- Effect of chemical composition on irradiation creep of stainless steels irradiated in the BOR-60 reactor at 420 °C, V.S. Neustroev and V.K. Shamardin 307–311 (2002) 343
- Swelling of cold-worked austenitic stainless steels irradiated in HFIR under spectrally tailored conditions, E. Wakai, N. Hashimoto, J.P. Robertson, T. Sawai and A. Hishinuma 307–311 (2002) 352
- The performance of Chinese 316L and 316Ti stainless steel irradiated at 300, 400, 500 and 600 °C in HFIR JP-23 test capsule, J. Yu, D.S. Gelles, F.A. Garner, M.B. Toloczko, M.L. Hamilton, R.J. Kurtz and R.H. Jones 307–311 (2002) 357
- Influence of temperature change on microstructure evolution in Ni alloys irradiated with neutrons, Q. Xu and T. Yoshiie 307–311 (2002) 380
- Effects of solid transmutation and helium on microstructural evolution in neutron-irradiated vanadium, T. Sato, T. Okita and N. Sekimura 307–311 (2002) 385
- Phase stability and mechanical properties of irradiated Ti–Al–V intermetallic compound, T. Sawai, E. Wakai, S. Jitsukawa and A. Hishinuma 307–311 (2002) 389
- Microstructural examination of irradiated and unirradiated V–4Cr–4Ti pressurized creep tubes, D.S. Gelles 307–311 (2002) 393
- Effects of temperature change on vanadium alloys irradiated in HFIR, H. Watanabe, T. Muroga and N. Yoshida 307–311 (2002) 403
- Microstructure evolution in D–T neutron irradiated silver, K. Sugio, H. Ohkubo, I. Mukouda, Y. Shimomura, C. Kutsukake and H. Takeuchi 307–311 (2002) 450
- Ferritic/martensitic steels – overview of recent results, R.L. Klueh, D.S. Gelles, S. Jitsukawa, A. Kimura, G.R. Odette, B. van der Schaaf and M. Victoria 307–311 (2002) 455
- Heat resistant reduced activation 12% Cr steel of 16Cr12W2VTaB

- type-advanced structural material for fusion and fast breeder power reactors, A.G. Ioltukhovskiy, M.V. Leonteva-Smirnova, M.I. Solonin, V.M. Chernov, V.N. Golovanov, V.K. Shamardin, T.M. Bulanova, A.V. Povstyanko and A.E. Fedoseev 307–311 (2002) 532
- Fabrication using a levitation melting method of V–4Cr–4Ti–Si–Al–Y alloys and their mechanical properties, T. Chuto, M. Satou, A. Hasegawa, K. Abe, T. Nagasaka and T. Muroga 307–311 (2002) 555
- Effects of neutron irradiation at 70–200 °C in beryllium, V.P. Chakin, V.A. Kazakov, R.R. Melder, Yu.D. Goncharenko and I.B. Kupriyanov 307–311 (2002) 647
- Tritium release properties of neutron-irradiated Be₁₂Ti, M. Uchida, E. Ishitsuka and H. Kawamura 307–311 (2002) 653
- Evolution of beryllium microstructure under high-dose neutron irradiation, V.P. Chakin and Z. Ye Ostrovsky 307–311 (2002) 657
- Influence of high dose neutron irradiation on thermal conductivity of beryllium, D.N. Syslov, V.P. Chakin and R.N. Latypov 307–311 (2002) 664
- In-pile test of Li₂TiO₃ pebble bed with neutron pulse operation, K. Tsuchiya, M. Nakamichi, A. Kikukawa, Y. Nagao, M. Enoeda, T. Osaki, K. Ioki and H. Kawamura 307–311 (2002) 817
- Modeling defect production in silica glass due to energetic recoils using molecular dynamics simulations, A. Kubota, M.-J. Caturla, S.A. Payne, T. Diaz de la Rubia and J.F. Latkowski 307–311 (2002) 891
- Displacement damage cross sections for neutron-irradiated silicon carbide, H.L. Heinisch, L.R. Greenwood, W.J. Weber and R.E. Williford 307–311 (2002) 895
- Dose dependence of defect accumulation in neutron irradiated copper and iron, M. Eldrup, B.N. Singh, S.J. Zinkle, T.S. Byun and K. Farrell 307–311 (2002) 912
- One dimensional motion of interstitial clusters and void growth in Ni and Ni alloys, T. Yoshiie, T. Ishizaki, Q. Xu, Y. Satoh and M. Kiritani 307–311 (2002) 924
- Temperature effect on characteristics of void population formed in the austenitic steel under neutron irradiation up to high damage dose, A.V. Kozlov, I.A. Portnykh, L.A. Skryabin and E.A. Kinev 307–311 (2002) 956
- Experimental investigation of radioactivity induced in the fusion power plant structural material in Eurofer and in other steels by D–T neutrons, K. Seidel, R.A. Forrest, H. Freiesleben, V.D. Kovalchuk, D.V. Markovskij, D.V. Maximov and S. Unholzer 307–311 (2002) 1037
- Radiation damage parameters for modelling of FRM irradiation conditions at the RADEX facility of INR RAS, E.A. Koptelov, S.G. Lebedev, N.M. Sobolevsky, Yu.S. Strebkov and A.V. Subbotin 307–311 (2002) 1042
- Physical property change of concurrently neutron-irradiated CVD-diamond, silicon and silicon carbide, T. Yano, Y. Yamamoto and T. Iseki 307–311 (2002) 1102
- Radiation swelling of SiC under neutron irradiation, A.I. Ryazanov, A.V. Klaptsov, A. Kohyama and H. Kishimoto 307–311 (2002) 1107
- Experimental simulation of the effect of transmuted helium on the mechanical properties of silicon carbide, L.L. Snead, R. Scholz, A. Hasegawa and A. Frias Rebeles 307–311 (2002) 1141
- Conductivity of SiC during neutron and proton irradiation, O.A. Plaksin, V.A. Stepanov, H. Amekura and N. Kishimoto 307–311 (2002) 1146
- The effect of high dose/high temperature irradiation on high purity fibers and their silicon carbide composites, T. Hinoki, L.L. Snead, Y. Katoh, A. Hasegawa, T. Nozawa and A. Kohyama 307–311 (2002) 1157
- Irradiation effects on thermal expansion of SiC/SiC composite materials, M. Ishihara, S. Baba, T. Hoshiya and T. Shikama 307–311 (2002) 1168
- Effect of OH-group content on optical properties of silica core fiber waveguides during reactor irradiation, O.A. Plaksin, V.A. Stepanov and T. Shikama 307–311 (2002) 1242
- Mechanical strength of neutron-irradiated window materials, R. Heidinger 307–311 (2002) 1254
- In situ transmissivity measurements of KU1 quartz in the UV range under 14 MeV neutron irradiation, T. Sugie, T. Nishitani, S. Kasai, J. Kaneko and S. Yamamoto 307–311 (2002) 1264
- In situ luminescence and optical absorption measurements of silica in reactor core, T. Yoshida, T. Ii, T. Tanabe, H. Yoshida and K. Yamaguchi 307–311 (2002) 1268

- Macroscopic properties and microstructure changes of heavily neutron-irradiated β - Si_3N_4 by annealing, M. Akiyoshi, K. Ichikawa, T. Donomae and T. Yano 307–311 (2002) 1305
- Mechanical strength of an ITER coil insulation system under static and dynamic load after reactor irradiation, K. Bittner-Rohrhofer, K. Humer, H.W. Weber, K. Hamada, M. Sugimoto and K. Okuno 307–311 (2002) 1310
- Tritium release from neutron-irradiated Li_2O sintered pellets: fluence dependence, T. Tanifuji, D. Yamaki and S. Jitsukawa 307–311 (2002) 1456
- Helium and hydrogen generation in pure metals irradiated with high-energy protons and spallation neutrons in LANSCE, B.M. Oliver, M.R. James, F.A. Garner and S.A. Maloy 307–311 (2002) 1471
- Neutron irradiation effect on the mechanical properties of type 316L SS welded joints, S. Saito, K. Fukaya, S. Ishiyama, H. Amezawa, M. Yonekawa, F. Takada, Y. Kato, T. Takeda, H. Takahashi and M. Nakahira 307–311 (2002) 1573
- The ARBOR irradiation project, C. Petersen, V. Shamardin, A. Fedoseev, G. Shimansky, V. Efimov and J. Rensman 307–311 (2002) 1655
- Status of activities on the lithium target in the key element technology phase in IFMIF, H. Nakamura, L. Burgazzi, S. Cevolani, G. Dell'Orco, C. Fazio, D. Giusti, H. Horiike, M. Ida, H. Kakui, N. Loginov, H. Matsui, T. Muroga, H. Nakamura, B. Riccardi, H. Takeuchi and S. Tanaka 307–311 (2002) 1675
- New evaluation of displacement damage and gas production for breeder ceramics under IFMIF, fusion and fission neutron irradiation, Yu. Lizunov, A. Möslang, A. Ryazanov and P. Vladimirov 307–311 (2002) 1680
- Water jet flow simulation and lithium free surface flow experiments for the IFMIF target, M. Ida, H. Horiike, M. Akiba, K. Ezato, T. Iida, S. Inoue, S. Miyamoto, T. Muroga, H. Nakamura, H. Nakamura, H. Nakamura, A. Suzuki, H. Takeuchi, N. Uda and N. Yamaoka 307–311 (2002) 1686
- Issues to be verified by IFMIF prototype accelerator for engineering validation, M. Sugimoto, T. Imai, Y. Okumura, K. Nakayama, S. Suzuki and M. Saigusa 307–311 (2002) 1691
- Application of the IEAF-2001 activation data library to activation analyses of the IFMIF high flux test module, U. Fischer, P.P.H. Wilson, D. Leichtle, S.P. Simakov, U.v. Möllendorff, A. Konobeev, Yu. Korovin, P. Pereslavtsev and I. Schmuck 307–311 (2002) 1696
- A first step in the development of a powerful 14 MeV neutron source, A.A. Ivanov, E.P. Kruglyakov and Yu.A. Tsidulko 307–311 (2002) 1701
- Advanced Monte Carlo procedure for the IFMIF d-Li neutron source term based on evaluated cross section data, S.P. Simakov, U. Fischer, U. von Möllendorff, I. Schmuck, A.Yu. Konobeev, Yu.A. Korovin and P. Pereslavtsev 307–311 (2002) 1710
- Nickel, Nickel Alloys and Compounds**
- Dissolution kinetics of intermetallics in aging austenitic steels during neutron irradiation, V.V. Sagaradze, V.M. Koloskov, B.N. Goshchitskii and V.A. Shabashov 307–311 (2002) 317
- Microstructure development and helium behavior in nickel and vanadium base alloys, A.N. Kalashnikov, I.I. Chernov, B.A. Kalin and S.Yu. Binyukova 307–311 (2002) 362
- Effect of solute atoms on swelling in Ni alloys and pure Ni under He^+ ion irradiation, E. Wakai, T. Ezawa, J. Imamura, T. Takenaka, T. Tanabe and R. Oshima 307–311 (2002) 367
- The microstructure and tensile properties of pure Ni single crystal irradiated with high energy protons, Z. Yao, R. Schäublin and M. Victoria 307–311 (2002) 374
- Influence of temperature change on microstructure evolution in Ni alloys irradiated with neutrons, Q. Xu and T. Yoshiie 307–311 (2002) 380
- One dimensional motion of interstitial clusters and void growth in Ni and Ni alloys, T. Yoshiie, T. Ishizaki, Q. Xu, Y. Satoh and M. Kiritani 307–311 (2002) 924
- The effect of hydrogen and helium on microvoid formation in iron and nickel, T. Ishizaki, Q. Xu, T. Yoshiie, S. Nagata and T. Troev 307–311 (2002) 961
- Study of fundamental features of bias effect in metals under irradiation, E. Kuramoto, K. Ohsawa and T. Tsutsumi 307–311 (2002) 982
- Nuclear Properties**
- Effects of solid transmutation and helium on microstructural evolution

- in neutron-irradiated vanadium, T. Sato, T. Okita and N. Sekimura 307–311 (2002) 385
- Activation characteristics of a solid breeder blanket for a fusion power demonstration reactor, U. Fischer and H. Tsige-Tamirat 307–311 (2002) 798
- Displacement damage cross sections for neutron-irradiated silicon carbide, H.L. Heinisch, L.R. Greenwood, W.J. Weber and R.E. Williford 307–311 (2002) 895
- Effects of impurities on low activation characteristics of V–4Cr–4Ti alloy, Y. Wu, T. Muroga, Q. Huang, Y. Chen, T. Nagasaka and A. Sagara 307–311 (2002) 1026
- Activation analysis of structural materials irradiated by fusion and fission neutrons, Q. Huang, S. Zheng, Y. Chen and J. Li 307–311 (2002) 1031
- Experimental investigation of radioactivity induced in the fusion power plant structural material in Eurofer and in other steels by D–T neutrons, K. Seidel, R.A. Forrest, H. Freiesleben, V.D. Kovalchuk, D.V. Markovskij, D.V. Maximov and S. Unholzer 307–311 (2002) 1037
- Decay heat measurement of fusion related materials in an ITER-like neutron field, Y. Morimoto, K. Ochiai, F. Maekawa, M. Wada, T. Nishitani and H. Takeuchi 307–311 (2002) 1052
- Neutron radiation effects of the center conductor post in a spherical tokamak reactor, J. Yu, Y. Wu, J. Sha, Q. Huang and Y. Ke 307–311 (2002) 1670
- New evaluation of displacement damage and gas production for breeder ceramics under IFMIF, fusion and fission neutron irradiation, Yu. Lizunov, A. Möslang, A. Ryazanov and P. Vladimirov 307–311 (2002) 1680
- Advanced Monte Carlo procedure for the IFMIF d–Li neutron source term based on evaluated cross section data, S.P. Simakov, U. Fischer, U. von Möllendorff, I. Schmuck, A.Yu. Konobeev, Yu.A. Korovin and P. Pereslavytsev 307–311 (2002) 1710
- Oxides**
- Modeling defect production in silica glass due to energetic recoils using molecular dynamics simulations, A. Kubota, M.-J. Caturla, S.A. Payne, T. Diaz de la Rubia and J.F. Latkowski 307–311 (2002) 891
- Permeation**
- Deuterium transport in SiC_f/SiC composites, G.A. Esteban, A. Perujo, F. Legarda, L.A. Sedano and B. Riccardi 307–311 (2002) 1430
- Permeation of deuterium and tritium through the martensitic steel F82H, Yu.N. Dolinsky, Yu.N. Zouev, I.A. Lyasota, I.V. Saprykin and V.V. Sagaradze 307–311 (2002) 1484
- Gas driven deuterium permeation through F82H martensitic steel, V. Shestakov, A. Pisarev, V. Sobolev, S. Kulsartov and I. Tazhibaeva 307–311 (2002) 1494
- Hydrogen permeability over the joint weld of the steel parts of fusion reactor with magnet confinement of plasma, V.V. Fedorov, E.V. Dyomina, T.M. Zasadny, L.I. Ivanov, M.D. Prusakova, N.A. Vinogradova and A.M. Zabelin 307–311 (2002) 1498
- Hydrogen permeation through metal membrane with protective coating in contact with atomic or ionized hydrogen, V.M. Sharapov 307–311 (2002) 1520
- Phase Equilibria** (*includes Constitution, Phase Stability, Phase Instability*)
- Phase stability of oxide dispersion-strengthened ferritic steels in neutron irradiation, S. Yamashita, K. Oka, S. Ohnuki, N. Akasaka and S. Ukai 307–311 (2002) 283
- Phase Transformation** (*includes Evaporation, Sublimation*)
- Damage of structural materials for fusion devices under pulsed ion and high temperature plasma beams, V.N. Pimenov, E.V. Dyomina, L.I. Ivanov, S.A. Maslyaev, V.A. Gribkov, R. Miklaszewski, M. Scholz, A.V. Dubrovsky, I.V. Volobuev, Yu.E. Ugaste, F. Mezzetti, P. De Chiara, L. Pizzo, B. Kolman and A. Szydowski 307–311 (2002) 95
- Melt layer behavior of metal targets irradiated by powerful plasma streams, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.E. Garkusha, V.A. Makhilaj, D.G. Solyakov, V.I. Tereshin and H. Wuerz 307–311 (2002) 106
- Phase stability and mechanical properties of irradiated Ti–Al–V intermetallic compound, T. Sawai, E. Wakai, S. Jitsukawa and A. Hishinuma 307–311 (2002) 389
- Behavior of Eurofer97 reduced activation martensitic steel upon heating and continuous cooling, A. Danón and A. Alamo 307–311 (2002) 479
- Phase transformation in the γ -TiAl alloy induced by Ar ions, M. Song,

- K. Mitsuishi, M. Takeguchi, K. Furuya, T. Tanabe and T. Noda 307–311 (2002) 971
- Physical Properties (not listed elsewhere)**
- Development of an extensive database of mechanical and physical properties for reduced-activation martensitic steel F82H, S. Jitsukawa, M. Tamura, B. van der Schaaf, R.L. Klueh, A. Alamo, C. Petersen, M. Schirra, P. Spaetig, G.R. Odette, A.A. Tavassoli, K. Shiba, A. Kohyama and A. Kimura 307–311 (2002) 179
- Specification of properties and design allowables for copper alloys used in HHF components of ITER, G.M. Kalinin, S.A. Fabritziev, B.N. Singh, S. Tahtinen and S.J. Zinkle 307–311 (2002) 668
- Molecular dynamics simulation of vanadium using an interatomic potential fitted to finite temperature properties, M. Satou, S. Yip and K. Abe 307–311 (2002) 1007
- Physical property change of concurrently neutron-irradiated CVD-diamond, silicon and silicon carbide, T. Yano, Y. Yamamoto and T. Iseki 307–311 (2002) 1102
- Effect of OH-group content on optical properties of silica core fiber waveguides during reactor irradiation, O.A. Plaksin, V.A. Stepanov and T. Shikama 307–311 (2002) 1242
- Surface degradation effects on laser damage in KU1 quartz glass windows for LIDAR applications, P. Martin, A. Morono and E.R. Hodgson 307–311 (2002) 1260
- In situ transmissivity measurements of KU1 quartz in the UV range under 14 MeV neutron irradiation, T. Sugie, T. Nishitani, S. Kasai, J. Kaneko and S. Yamamoto 307–311 (2002) 1264
- In situ luminescence and optical absorption measurements of silica in reactor core, T. Yoshida, T. Ii, T. Tanabe, H. Yoshida and K. Yamaguchi 307–311 (2002) 1268
- Round-robin irradiation test of radiation resistant optical fibers for ITER diagnostic application, T. Kakuta, T. Shikama, T. Nishitani, B. Brichard, A. Krassilnikov, A. Tomashuk, S. Yamamoto and S. Kasai 307–311 (2002) 1277
- Wetting of Fe–7.5%Cr steel by molten Pb and Pb–17Li, P. Protsenko, A. Terlain, M. Jeymond and N. Eustathopoulos 307–311 (2002) 1396
- Plasma Properties (includes Plasma Disruption)**
- Erosion and re-deposition behavior of plasma facing materials due to tokamak plasma disruption, X. Liu, Z.Y. Xu, J.M. Chen, L.W. Yan and Y. Liu 307–311 (2002) 84
- A first step in the development of a powerful 14 MeV neutron source, A.A. Ivanov, E.P. Kruglyakov and Yu.A. Tsidulko 307–311 (2002) 1701
- Plasma-Materials Interaction**
- Plasma facing and high heat flux materials – needs for ITER and beyond, H. Bolt, V. Barabash, G. Federici, J. Linke, A. Loarte, J. Roth and K. Sato 307–311 (2002) 43
- Macroscopic erosion of divertor and first wall armour in future tokamaks, H. Würz, B. Bazylev, I. Landman, S. Pestchanyi and V. Safronov 307–311 (2002) 60
- Melt layer erosion of metallic armour targets during off-normal events in tokamaks, B. Bazylev and H. Wuerz 307–311 (2002) 69
- Damage of structural materials for fusion devices under pulsed ion and high temperature plasma beams, V.N. Pimenov, E.V. Dyomina, L.I. Ivanov, S.A. Maslyaev, V.A. Gribkov, R. Miklaszewski, M. Scholz, A.V. Dubrovsky, I.V. Volobuev, Yu.E. Ugaste, F. Mezzetti, P. De Chiara, L. Pizzo, B. Kolman and A. Szydłowski 307–311 (2002) 95
- Melt layer behavior of metal targets irradiated by powerful plasma streams, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.E. Garkusha, V.A. Makhhlaj, D.G. Solyakov, V.I. Tereshin and H. Wuerz 307–311 (2002) 106
- Erosion and migration of tungsten employed at the central column heat shield of ASDEX Upgrade, K. Krieger, X. Gong, M. Balden, D. Hildebrandt, H. Maier, V. Rohde, J. Roth, W. Schneider and The ASDEX Upgrade Team 307–311 (2002) 139
- Heat load to a tantalum–tungsten twin-test-limiter and the effect to high-Z core plasma concentration of TEXTOR-94, T. Ohgo, M. Wada, A. Pospieszczyk, W. Biel, K. Kondo, T. Tanabe, T. Hirai, V. Philipps, A. Huber, G. Sergienko, B. Schweer, G. Bertschinger and N. Noda 307–311 (2002) 149
- Influence of the manufacturing heat cycles on the CuCrZr properties,

- M. Merola, A. Orsini, E. Visca, S. Libera, L.F. Moreschi, S. Storai, B. Panella, E. Campagnoli, G. Rusci-
ca and C. Bosco 307–311 (2002) 677
- Microstructure and deuterium content
of tokamak T-10 carbon erosion
products, P.V. Romanov, B.N.
Kolbasov, V.Kh. Alimov, V.M.
Gureev, A.G. Domantovskij, L.N.
Khimchenko and P.N. Orlov 307–311 (2002) 1294
- Erosion mechanism and erosion pro-
ducts in carbon-based materials, N.
Arkipov, V. Bakhtin, V. Barsuk,
S. Kurkin, E. Mironova, G. Piazza,
V. Safronov, F. Scaffidi-Argentina,
D. Toporkov, S. Vasenin, H. Würz
and A. Zhitlukhin 307–311 (2002) 1364
- Recent activities on the compatibility
of the ferritic steel wall with the
plasma in the JFT-2M tokamak,
K. Tsuzuki, M. Sato, H. Kawa-
shima, N. Isei, H. Kimura, H.
Ogawa, K. Miyachi, M. Yama-
moto and T. Shibata 307–311 (2002) 1386
- Research of lithium capillary-pore
systems for fusion reactor plasma
facing components, V.A. Evtikhin,
A.V. Vertkov, I.E. Lyublinski, B.I.
Khripunov, V.B. Petrov and S.V.
Mirnov 307–311 (2002) 1664
- Positron Annihilation**
- Influence of temperature change on
microstructure evolution in Ni al-
loys irradiated with neutrons, Q.
Xu and T. Yoshiie 307–311 (2002) 380
- Dose dependence of defect accumula-
tion in neutron irradiated copper
and iron, M. Eldrup, B.N. Singh,
S.J. Zinkle, T.S. Byun and K.
Farrell 307–311 (2002) 912
- Precipitates and Precipitation**
- Modelling of the effect of precipitates
on work-hardening, ductility and
impact behaviour of ferritic-mar-
tensitic Cr steels, D. Preininger 307–311 (2002) 514
- Effect of substrate temperature on
microstructure and deuterium reten-
tion of molybdenum co-deposit-
ion with oxygen, M. Miyamoto,
T. Hirai, K. Tokunaga, T. Fuji-
wara and N. Yoshida 307–311 (2002) 710
- Analytical model of radiation-induced
precipitation at the surface of di-
lute binary alloy, V.A. Pechenkin,
I.A. Stepanov and Yu.V. Kono-
beev 307–311 (2002) 998
- Comparative study: sensitization de-
velopment in hot-isostatic-pressed
cast and wrought structures type
316L(N)-IG stainless steel under
isothermal heat treatment, K.I.
Shutko and V.N. Belous 307–311 (2002) 1016
- Proton Irradiation**
- Comparison of in-beam fatigue beha-
vior between austenitic and ferritic
steels at 60 °C, Y. Murase, J. Na-
gakawa and N. Yamamoto 307–311 (2002) 527
- Structure–mechanics relationships in
proton irradiated pure titanium, T.
Leguey, N. Baluc, R. Schäublin
and M. Victoria 307–311 (2002) 696
- Radiation damage parameters for
modelling of FRM irradiation
conditions at the RADEX facility
of INR RAS, E.A. Koptelov, S.G.
Lebedev, N.M. Sobolevsky, Yu.S.
Strebkov and A.V. Subbotin 307–311 (2002) 1042
- Conductivity of SiC during neutron
and proton irradiation, O.A.
Plaksin, V.A. Stepanov, H. Ame-
kura and N. Kishimoto 307–311 (2002) 1146
- Radiation Effects: Atomic Defects**
- Microstructure evolution in D–T neu-
tron irradiated silver, K. Sugio, H.
Ohkubo, I. Mukouda, Y. Shimo-
mura, C. Kutsukake and H. Ta-
keuchi 307–311 (2002) 450
- Displacement damage parameters for
fusion breeder blanket materials
based on BCA computer simula-
tions, D. Leichtle 307–311 (2002) 793
- Mechanisms of dislocation-defect in-
teractions in irradiated metals in-
vestigated by computer
simulations, N.M. Ghoniem, S.H.
Tong, J. Huang, B.N. Singh and
M. Wen 307–311 (2002) 843
- Atomistic study of the generation, in-
teraction, accumulation and anni-
hilation of cascade-induced defect
clusters, Yu.N. Osetsky, D.J. Ba-
con, B.N. Singh and B. Wirth 307–311 (2002) 852
- The effects of one-dimensional migra-
tion of self-interstitial clusters on
the formation of void lattices, H.L.
Heinisch and B.N. Singh 307–311 (2002) 876
- Thermal friction and Brownian mo-
tion of interstitial defects in irra-
diated materials, S.L. Dudarev 307–311 (2002) 881
- Point defect behavior in electron irra-
diated V–4Cr–4Ti alloy, Q. Xu, T.
Yoshiie and H. Mori 307–311 (2002) 886
- One dimensional motion of interstitial
clusters and void growth in Ni and
Ni alloys, T. Yoshiie, T. Ishizaki,
Q. Xu, Y. Satoh and M. Kiritani 307–311 (2002) 924
- Effect of undersized solute atoms on
point defect behavior in V–A

- (A=Fe, Cr and Si) binary alloys studied by using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 930
- The effect of free surfaces on cascade damage production in iron, R.E. Stoller 307–311 (2002) 935
- Study of point defect behavior in V–Ti alloys using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 951
- The effect of hydrogen and helium on microvoid formation in iron and nickel, T. Ishizaki, Q. Xu, T. Yoshiie, S. Nagata and T. Troev 307–311 (2002) 961
- Study of fundamental features of bias effect in metals under irradiation, E. Kuramoto, K. Ohsawa and T. Tsutsumi 307–311 (2002) 982
- In situ observation of glide motions of SIA-type loops in vanadium and V–5Ti under HVEM irradiation, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 993
- Promise and challenges of SiC_f/SiC composites for fusion energy applications, R.H. Jones, L. Giancarli, A. Hasegawa, Y. Katoh, A. Kohyama, B. Riccardi, L.L. Snead and W.J. Weber 307–311 (2002) 1057
- Oxygen interstitial trapping in electron irradiated sapphire, A. Morofino and E.R. Hodgson 307–311 (2002) 1246
- Radiation Effects: Extended Defects, Microstructures**
- Scientific and engineering advances from fusion materials R&D, S.J. Zinkle, M. Victoria and K. Abe 307–311 (2002) 31
- Effect of periodic temperature variations on the microstructure of neutron-irradiated metals, S.J. Zinkle, N. Hashimoto, D.T. Hoelzer, A.L. Qualls, T. Muroga and B.N. Singh 307–311 (2002) 192
- Microstructure of irradiated ferritic/martensitic steels in relation to mechanical properties, R. Schaublin, D. Gelles and M. Victoria 307–311 (2002) 197
- Microstructural study of irradiated isotopically tailored F82H steel, E. Wakai, Y. Miwa, N. Hashimoto, J.P. Robertson, R.L. Klueh, K. Shiba, K. Abiko, S. Furuno and S. Jitsukawa 307–311 (2002) 203
- Evaluation of hardening behaviour of ion irradiated reduced activation ferritic/martensitic steels by an ultra-micro-indentation technique, M. Ando, H. Tanigawa, S. Jitsukawa, T. Sawai, Y. Katoh, A. Kohyama, K. Nakamura and H. Takeuchi 307–311 (2002) 260
- Microstructural evolution in modified 9Cr–1Mo ferritic/martensitic steel irradiated with mixed high-energy proton and neutron spectra at low temperatures, B.H. Sencer, F.A. Garner, D.S. Gelles, G.M. Bond and S.A. Maloy 307–311 (2002) 266
- Effect of triple ion beams in ferritic/martensitic steel on swelling behavior, E. Wakai, T. Sawai, K. Furuya, A. Naito, T. Aruga, K. Kikuchi, S. Yamashita, S. Ohnuki, S. Yamamoto, H. Naramoto and S. Jitsukawa 307–311 (2002) 278
- Evaluation of radiation hardening in Fe alloys under heavy ion irradiation by micro-indentation technique, N. Sekimura, T. Kamada, Y. Wakasugi, T. Okita and Y. Arai 307–311 (2002) 308
- The primary origin of dose rate effects on microstructural evolution of austenitic alloys during neutron irradiation, T. Okita, T. Sato, N. Sekimura, F.A. Garner and L.R. Greenwood 307–311 (2002) 322
- Microstructure of neutron irradiated SS316L/DS-Cu joint, H. Watanabe, D.J. Edwards, Y. Aono and N. Yoshida 307–311 (2002) 335
- The performance of Chinese 316L and 316Ti stainless steel irradiated at 300, 400, 500 and 600 °C in HFIR JP-23 test capsule, J. Yu, D.S. Gelles, F.A. Garner, M.B. Toloczko, M.L. Hamilton, R.J. Kurtz and R.H. Jones 307–311 (2002) 357
- Effect of solute atoms on swelling in Ni alloys and pure Ni under He⁺ ion irradiation, E. Wakai, T. Ezawa, J. Imamura, T. Takenaka, T. Tanabe and R. Oshima 307–311 (2002) 367
- The microstructure and tensile properties of pure Ni single crystal irradiated with high energy protons, Z. Yao, R. Schäublin and M. Victoria 307–311 (2002) 374
- Influence of temperature change on microstructure evolution in Ni alloys irradiated with neutrons, Q. Xu and T. Yoshiie 307–311 (2002) 380
- Effects of solid transmutation and helium on microstructural evolution in neutron-irradiated vanadium, T. Sato, T. Okita and N. Sekimura 307–311 (2002) 385
- Microstructural examination of irradiated and unirradiated V–4Cr–4Ti pressurized creep tubes, D.S. Gelles 307–311 (2002) 393
- Effects of temperature change on microstructural evolution in vanadium alloys under ion irradiation up to high damage levels, N. Nita,

- T. Yamamoto, T. Iwai, K. Yasunaga, K. Fukumoto and H. Matsui
Effects of temperature change on vanadium alloys irradiated in HFIR, H. Watanabe, T. Muroga and N. Yoshida 307–311 (2002) 398
- Microstructure in vanadium irradiated by simultaneous multi-ion beam of hydrogen, helium and nickel ions, I. Mukouda, Y. Shimomura, D. Yamaki, T. Nakazawa, T. Aruga and S. Jitsukawa 307–311 (2002) 403
- Post-irradiation annealing of neutron irradiated CuCrZr, D.J. Edwards, B.N. Singh, Q. Xu and P. Toft 307–311 (2002) 439
- Evolution of beryllium microstructure under high-dose neutron irradiation, V.P. Chakin and Z. Ye Ostrovsky 307–311 (2002) 657
- Structure–mechanics relationships in proton irradiated pure titanium, T. Leguey, N. Baluc, R. Schäublin and M. Victoria 307–311 (2002) 696
- Microstructure and mechanical properties of two ODS ferritic/martensitic steels, R. Schäublin, T. Leguey, P. Spätig, N. Baluc and M. Victoria 307–311 (2002) 778
- Structure, radiation resistance and thermal creep of ODS ferritic steels, B.N. Goshchitskii, V.V. Sagaradze, V.I. Shalaev, V.L. Arbutov, Y. Tian, W. Qun and S. Jiguang 307–311 (2002) 783
- Mechanisms of dislocation-defect interactions in irradiated metals investigated by computer simulations, N.M. Ghoniem, S.H. Tong, J. Huang, B.N. Singh and M. Wen 307–311 (2002) 843
- Atomistic study of the generation, interaction, accumulation and annihilation of cascade-induced defect clusters, Yu.N. Osetsky, D.J. Bacon, B.N. Singh and B. Wirth 307–311 (2002) 852
- Statistical analysis of cluster production efficiency in MD simulations of cascades in copper, Yu.N. Osetsky, D.J. Bacon and B.N. Singh 307–311 (2002) 866
- The effects of one-dimensional migration of self-interstitial clusters on the formation of void lattices, H.L. Heinisch and B.N. Singh 307–311 (2002) 876
- Thermal friction and Brownian motion of interstitial defects in irradiated materials, S.L. Dudarev 307–311 (2002) 881
- Multiscale modeling study of pulsed damage accumulation in α -Fe under inertial fusion conditions, J.M. Perlado, D. Lodi, E. Domínguez, J. Prieto, M.J. Caturla and T. Díaz de la Rubia 307–311 (2002) 907
- Effect of undersized solute atoms on point defect behavior in V–A (A=Fe, Cr and Si) binary alloys studied by using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 930
- Study of point defect behavior in V–Ti alloys using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 951
- Correlating TEM images of damage in irradiated materials to molecular dynamics simulations, R. Schäublin, M.-J. Caturla, M. Wall, T. Felter, M. Fluss, B.D. Wirth, T. Diaz de la Rubia and M. Victoria 307–311 (2002) 988
- In situ observation of glide motions of SIA-type loops in vanadium and V–5Ti under HVEM irradiation, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 993
- Microstructural stability of SiC and SiC/SiC composites under high temperature irradiation environment, H. Kishimoto, Y. Katoh and A. Kohyama 307–311 (2002) 1130
- Macroscopic properties and microstructure changes of heavily neutron-irradiated β -Si₃N₄ by annealing, M. Akiyoshi, K. Ichikawa, T. Donomae and T. Yano 307–311 (2002) 1305
- Radiation Effects: Mechanical Properties**
- Scientific and engineering advances from fusion materials R&D, S.J. Zinkle, M. Victoria and K. Abe 307–311 (2002) 31
- Experiment-based modelling of hardening and localized plasticity in metals irradiated under cascade damage conditions, B.N. Singh, N.M. Ghoniem and H. Trinkaus 307–311 (2002) 159
- Modeling the multiscale mechanics of flow localization-ductility loss in irradiation damaged bcc alloys, G.R. Odette, M.Y. He, E.G. Donahue, P. Spätig and T. Yamamoto 307–311 (2002) 171
- Development of an extensive database of mechanical and physical properties for reduced-activation martensitic steel F82H, S. Jitsukawa, M. Tamura, B. van der Schaaf, R.L. Klueh, A. Alamo, C. Petersen, M. Schirra, P. Spaetig, G.R. Odette, A.A. Tavassoli, K. Shiba, A. Kohyama and A. Kimura 307–311 (2002) 179
- Microstructure of irradiated ferritic/martensitic steels in relation to mechanical properties, R. Schäublin, D. Gelles and M. Victoria 307–311 (2002) 197

- Evolution of the mechanical properties and microstructure of ferritic-martensitic steels irradiated in the BOR-60 reactor, V.K. Shamardin, V.N. Golovanov, T.M. Bulanova, A.V. Povstyanko, A.E. Fedoseev, Z.E. Ostrovsky and Yu.D. Goncharenko 307–311 (2002) 229
- Characteristics of unirradiated and 60 °C, 2.7 dpa irradiated Eurofer97, J. Rensman, H.E. Hofmans, E.W. Schuring, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 250
- Tensile response of low activation ferritic steels irradiated in ORR at temperatures in the range 60–400 °C, M.L. Hamilton and D.S. Gelles 307–311 (2002) 256
- Evaluation of hardening behaviour of ion irradiated reduced activation ferritic/martensitic steels by an ultra-micro-indentation technique, M. Ando, H. Tanigawa, S. Jitsukawa, T. Sawai, Y. Katoh, A. Kohyama, K. Nakamura and H. Takeuchi 307–311 (2002) 260
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Evaluation of radiation hardening in Fe alloys under heavy ion irradiation by micro-indentation technique, N. Sekimura, T. Kamada, Y. Wakasugi, T. Okita and Y. Arai 307–311 (2002) 308
- The performance of Chinese 316L and 316Ti stainless steel irradiated at 300, 400, 500 and 600 °C in HFIR JP-23 test capsule, J. Yu, D.S. Gelles, F.A. Garner, M.B. Toloczko, M.L. Hamilton, R.J. Kurtz and R.H. Jones 307–311 (2002) 357
- The microstructure and tensile properties of pure Ni single crystal irradiated with high energy protons, Z. Yao, R. Schäublin and M. Victoria 307–311 (2002) 374
- Phase stability and mechanical properties of irradiated Ti–Al–V intermetallic compound, T. Sawai, E. Wakai, S. Jitsukawa and A. Hishinuma 307–311 (2002) 389
- Irradiation behaviour of titanium alloys for ITER blanket modules flexible attachment, B.S. Rodchenkov, A.V. Kozlov, Yu.G. Kuznetsov, G.M. Kalinin and Yu.S. Strebkov 307–311 (2002) 421
- Effect of the bake-out regime on the recovery of properties of copper-based alloys and copper/steel joints, S.A. Fabritsiev and A.S. Pokrovsky 307–311 (2002) 431
- Post-irradiation annealing of neutron irradiated CuCrZr, D.J. Edwards, B.N. Singh, Q. Xu and P. Toft 307–311 (2002) 439
- Ferritic/martensitic steels – overview of recent results, R.L. Klueh, D.S. Gelles, S. Jitsukawa, A. Kimura, G.R. Odette, B. van der Schaaf and M. Victoria 307–311 (2002) 455
- Heat resistant reduced activation 12% Cr steel of 16Cr12W2VTaB type-advanced structural material for fusion and fast breeder power reactors, A.G. Ioltukhovskiy, M.V. Leonteva-Smirnova, M.I. Solonin, V.M. Chernov, V.N. Golovanov, V.K. Shamardin, T.M. Bulanova, A.V. Povstyanko and A.E. Fedoseev 307–311 (2002) 532
- Vanadium alloys – overview and recent results, T. Muroga, T. Nagasaka, K. Abe, V.M. Chernov, H. Matsui, D.L. Smith, Z.-Y. Xu and S.J. Zinkle 307–311 (2002) 547
- Influence of alloying and impurity element contents on V–Ti–Cr alloy properties, V.A. Evtikhin, I.E. Lyublinski, A.V. Vertkov, S.N. Votinov and A.I. Dedyurin 307–311 (2002) 591
- Specification of properties and design allowables for copper alloys used in HHF components of ITER, G.M. Kalinin, S.A. Fabritsiev, B.N. Singh, S. Tahtinen and S.J. Zinkle 307–311 (2002) 668
- Structure–mechanics relationships in proton irradiated pure titanium, T. Leguey, N. Baluc, R. Schäublin and M. Victoria 307–311 (2002) 696
- Microstructure and mechanical properties of two ODS ferritic/martensitic steels, R. Schaublin, T. Leguey, P. Spätig, N. Baluc and M. Victoria 307–311 (2002) 778
- Structure, radiation resistance and thermal creep of ODS ferritic steels, B.N. Goshchitskii, V.V. Sagaradze, V.I. Shalaev, V.L. Arbutov, Y. Tian, W. Qun and S. Jiguang 307–311 (2002) 783
- Burst properties of irradiated oxide dispersion strengthened ferritic steel claddings, T. Yoshitake, T. Ohmori and S. Miyakawa 307–311 (2002) 788
- Influence of neutron irradiation on the strength characteristics of lithium ceramic pellets for fusion reactor

- blankets, V. Kaprychev, V. Tebus and V. Frolov 307–311 (2002) 823
- Mechanical property change and swelling behavior of SiC fiber after light-ion irradiation, A. Hasegawa, S. Nogami, T. Aizawa, K. Katou and K. Abe 307–311 (2002) 1152
- The effect of high dose/high temperature irradiation on high purity fibers and their silicon carbide composites, T. Hinoki, L.L. Snead, Y. Katoh, A. Hasegawa, T. Nozawa and A. Kohyama 307–311 (2002) 1157
- Indentation fracture toughness of neutron irradiated silicon carbide, S. Nogami, A. Hasegawa and L.L. Snead 307–311 (2002) 1163
- Effects of fibers and fabrication processes on mechanical properties of neutron irradiated SiC/SiC composites, T. Nozawa, T. Hinoki, Y. Katoh and A. Kohyama 307–311 (2002) 1173
- Analysis of possible deformation mechanisms in helium-ion irradiated SiC, S. Nogami, S. Ohtsuka, M.B. Toloczko, A. Hasegawa and K. Abe 307–311 (2002) 1178
- Light ion irradiation creep of Textron SCS-6™ silicon carbide fibers, R. Scholz, R. Mueller and D. Lesueur 307–311 (2002) 1183
- Evaluation of dual-ion irradiated β -SiC by means of indentation methods, K.H. Park, Y. Katoh, H. Kishimoto and A. Kohyama 307–311 (2002) 1187
- Properties of copper-stainless steel HIP joints before and after neutron irradiation, S. Tähtinen, A. Laukkanen, B.N. Singh and P. Toft 307–311 (2002) 1547
- Neutron irradiation effect on the mechanical properties of type 316L SS welded joints, S. Saito, K. Fukaya, S. Ishiyama, H. Ameszawa, M. Yonekawa, F. Takada, Y. Kato, T. Takeda, H. Takahashi and M. Nakahira 307–311 (2002) 1573
- Re-weldability of neutron-irradiated stainless steels studied by multi-pass TIG welding, K. Nakata, M. Oishi, M. Koshiishi, T. Hashimoto, H. Anzai, Y. Saito and W. Kono 307–311 (2002) 1578
- Development of a remote-controlled fatigue test machine using a laser extensometer for investigation of irradiation effect on fatigue properties, M. Yonekawa, T. Ishii, M. Ohmi, F. Takada, T. Hoshiya, M. Niimi, I. Ioka, Y. Miwa and H. Tsuji 307–311 (2002) 1613
- Radiation Effects: Physical Properties**
- Effect of the bake-out regime on recovery of properties of copper-based alloys and copper/steel joints, S.A. Fabritsiev and A.S. Pokrovsky 307–311 (2002) 431
- Structure, radiation resistance and thermal creep of ODS ferritic steels, B.N. Goshchitskii, V.V. Sagaradze, V.I. Shalaev, V.L. Arbuзов, Y. Tian, W. Qun and S. Jiguang 307–311 (2002) 783
- The effect of bias factor variations on void nucleation in irradiated alloys, V.A. Borodin, A.E. Volkov and A.I. Ryazanov 307–311 (2002) 862
- Electrical conductivity of silicon carbide composites and fibers, R. Scholz, F. dos Santos Marques and B. Riccardi 307–311 (2002) 1098
- Conductivity of SiC during neutron and proton irradiation, O.A. Plaksin, V.A. Stepanov, H. Amekura and N. Kishimoto 307–311 (2002) 1146
- Irradiation effects on thermal expansion of SiC/SiC composite materials, M. Ishihara, S. Baba, T. Hoshiya and T. Shikama 307–311 (2002) 1168
- Electrical and dielectric properties of irradiated KU1 quartz glass from DC to 145 GHz, R. Vila, J. Mollá, R. Heidinger, A. Morono and E.R. Hodgson 307–311 (2002) 1273
- Macroscopic properties and microstructure changes of heavily neutron-irradiated β -Si₃N₄ by annealing, M. Akiyoshi, K. Ichikawa, T. Donomae and T. Yano 307–311 (2002) 1305
- Neutron radiation effects of the center conductor post in a spherical tokamak reactor, J. Yu, Y. Wu, J. Sha, Q. Huang and Y. Ke 307–311 (2002) 1670
- Radiation Sources**
- Conditions for effects of radiation pulsing, H. Trinkaus and H. Ullmaier 307–311 (2002) 1705
- Experimental studies on the neutron emission spectrum and induced radioactivity of the ⁷Li(d,n) reaction in the 20–40 MeV region, M. Baba, T. Aoki, M. Hagiwara, M. Sugimoto, T. Miura, N. Kawata, A. Yamadera and H. Orihara 307–311 (2002) 1715
- Redeposition**
- Erosion and re-deposition behavior of plasma facing materials due to tokamak plasma disruption, X. Liu, Z.Y. Xu, J.M. Chen, L.W. Yan and Y. Liu 307–311 (2002) 84

- Experimental and computer investigation of the diagnostic mirror behavior under sputtering and duct material deposition, V.V. Bandourko, E.A. Gridneva, N.N. Koborov, V.A. Kurnaev, D.V. Levchuk, S.S. Levchuk, N.N. Trifonov and A.V. Zhuravlev 307–311 (2002) 154
- Refractory Metals, Alloys and Compounds** (*not listed elsewhere*)
- The primary origin of dose rate effects on microstructural evolution of austenitic alloys during neutron irradiation, T. Okita, T. Sato, N. Sekimura, F.A. Garner and L.R. Greenwood 307–311 (2002) 322
- Corrosion resistance of refractory metals in high-temperature water, Y. Ishijima, K. Kakiuchi, T. Furuya, H. Kurishita, M. Hasegawa, T. Igarashi and M. Kawai 307–311 (2002) 1369
- Reprocessing**
- Li₂TiO₃ pebbles reprocessing, recovery of ⁶Li as Li₂CO₃, C. Alvani, S. Casadio, V. Contini, A. Di Bartolomeo, J.D. Lulewicz and N. Roux 307–311 (2002) 837
- Safety of Nuclear Reactors and Components**
- Beryllium for fusion application – recent results, A. Khomutov, V. Barabash, V. Chakin, V. Chernov, D. Davydov, V. Gorokhov, H. Kawamura, B. Kolbasov, I. Kupriyanov, G. Longhurst, F. Scaffidi-Argentina and V. Shestakov 307–311 (2002) 630
- Steam oxidation of PFC materials for advanced tokamaks, R.A. Anderl, R.J. Pawelko, G.R. Smolik, G. Piazza, F. Scaffidi-Argentina and L.L. Snead 307–311 (2002) 1375
- The fusion-driven hybrid system and its material selection, Y.C. Wu, J.P. Qian and J.N. Yu 307–311 (2002) 1629
- Segregation**
- Effect of thermal cycling on impurity grain boundary segregation in maraging steel, A.M. Ilyin, I.L. Tazhibaeva and B.A. Borisov 307–311 (2002) 475
- Surface segregation and oxidation of Ti in a V–Ti alloy, R. Hayakawa, Y. Hatano, K. Fujii, K.-i. Fukumoto, H. Matsui and K. Watanabe 307–311 (2002) 580
- Analytical model of radiation-induced precipitation at the surface of dilute binary alloy, V.A. Pechenkin, I.A. Stepanov and Yu.V. Kono-beev 307–311 (2002) 998
- Silicon and Silicon Compounds**
- Breeding blanket concepts for fusion and materials requirements, A.R. Raffray, M. Akiba, V. Chuyanov, L. Giancarli and S. Malang 307–311 (2002) 21
- Isotope separation of silicon and molybdenum using a free electron laser, T. Noda, H. Suzuki, H. Araki, J.L. Lyman and B.E. Newnam 307–311 (2002) 715
- Displacement damage cross sections for neutron-irradiated silicon carbide, H.L. Heinisch, L.R. Greenwood, W.J. Weber and R.E. Williford 307–311 (2002) 895
- Promise and challenges of SiC_f/SiC composites for fusion energy applications, R.H. Jones, L. Giancarli, A. Hasegawa, Y. Katoh, A. Kohyama, B. Riccardi, L.L. Snead and W.J. Weber 307–311 (2002) 1057
- Effects of helium irradiation on chemical behavior of energetic deuterium in SiC, T. Sugiyama, Y. Morimoto, K. Iguchi, K. Okuno, M. Miyamoto, H. Iwakiri and N. Yoshida 307–311 (2002) 1080
- Deposition of compositionally graded SiC/C layers on C–C composites by low pressure chemical vapor deposition, J.I. Kim, W.-J. Kim, D.J. Choi and J.Y. Park 307–311 (2002) 1084
- Interfacial characterization of CVI-SiC/SiC composites, W. Yang, A. Kohyama, T. Noda, Y. Katoh, T. Hinoki, H. Araki and J. Yu 307–311 (2002) 1088
- High-temperature tensile strength of near-stoichiometric SiC/SiC composites, K. Hironaka, T. Nozawa, T. Hinoki, N. Igawa, Y. Katoh, L.L. Snead and A. Kohyama 307–311 (2002) 1093
- Electrical conductivity of silicon carbide composites and fibers, R. Scholz, F. dos Santos Marques and B. Riccardi 307–311 (2002) 1098
- Physical property change of concurrently neutron-irradiated CVD-diamond, silicon and silicon carbide, T. Yano, Y. Yamamoto and T. Iseki 307–311 (2002) 1102
- Radiation swelling of SiC under neutron irradiation, A.I. Ryazanov, A.V. Klaptsov, A. Kohyama and H. Kishimoto 307–311 (2002) 1107
- Optimizing the transverse thermal conductivity of 2D-SiC_f/SiC composites. I. Modeling, G.E. Youngblood, D.J. Senor and R.H. Jones 307–311 (2002) 1112
- Optimizing the transverse thermal conductivity of 2D-SiC_f/SiC composites, II. Experimental, G.E.

- Youngblood, D.J. Senor, R.H. Jones and W. Kowbel 307–311 (2002) 1120
- Surface blistering of ion irradiated SiC studied by grazing incidence electron microscopy, S. Igarashi, S. Muto and T. Tanabe 307–311 (2002) 1126
- Microstructural stability of SiC and SiC/SiC composites under high temperature irradiation environment, H. Kishimoto, Y. Katoh and A. Kohyama 307–311 (2002) 1130
- Effect of simultaneous ion irradiation on microstructural change of SiC/SiC composites at high temperature, T. Taguchi, E. Wakai, N. Igawa, S. Nogami, L.L. Snead, A. Hasegawa and S. Jitsukawa 307–311 (2002) 1135
- Experimental simulation of the effect of transmuted helium on the mechanical properties of silicon carbide, L.L. Snead, R. Scholz, A. Hasegawa and A. Frias Rebelo 307–311 (2002) 1141
- Conductivity of SiC during neutron and proton irradiation, O.A. Plaksin, V.A. Stepanov, H. Amekura and N. Kishimoto 307–311 (2002) 1146
- Mechanical property change and swelling behavior of SiC fiber after light-ion irradiation, A. Hasegawa, S. Nogami, T. Aizawa, K. Katou and K. Abe 307–311 (2002) 1152
- The effect of high dose/high temperature irradiation on high purity fibers and their silicon carbide composites, T. Hinoki, L.L. Snead, Y. Katoh, A. Hasegawa, T. Nozawa and A. Kohyama 307–311 (2002) 1157
- Indentation fracture toughness of neutron irradiated silicon carbide, S. Nogami, A. Hasegawa and L.L. Snead 307–311 (2002) 1163
- Irradiation effects on thermal expansion of SiC/SiC composite materials, M. Ishihara, S. Baba, T. Hoshiya and T. Shikama 307–311 (2002) 1168
- Effects of fibers and fabrication processes on mechanical properties of neutron irradiated SiC/SiC composites, T. Nozawa, T. Hinoki, Y. Katoh and A. Kohyama 307–311 (2002) 1173
- Analysis of possible deformation mechanisms in helium-ion irradiated SiC, S. Nogami, S. Ohtsuka, M.B. Toloczko, A. Hasegawa and K. Abe 307–311 (2002) 1178
- Light ion irradiation creep of Textron SCS-6™ silicon carbide fibers, R. Scholz, R. Mueller and D. Lesueur 307–311 (2002) 1183
- Evaluation of dual-ion irradiated β -SiC by means of indentation methods, K.H. Park, Y. Katoh, H. Kishimoto and A. Kohyama 307–311 (2002) 1187
- Process, microstructure and flexural properties of reaction sintered Tyranno SA/SiC composites, S.P. Lee, J.S. Park, Y. Katoh, A. Kohyama, D.H. Kim, J.K. Lee and H.K. Yoon 307–311 (2002) 1191
- Development of 2D and 3D Hi-Nicalon fibres/SiC matrix composites manufactured by a combined CVI-PIP route, C.A. Nannetti, B. Riccardi, A. Ortona, A. La Barbera, E. Scafè and G. Vekinis 307–311 (2002) 1196
- High thermal conductivity of graphite fiber silicon carbide composites for fusion reactor application, L.L. Snead, M. Balden, R.A. Causey and H. Atsumi 307–311 (2002) 1200
- Optimizing the fabrication process for superior mechanical properties in the FCVI SiC matrix/stoichiometric SiC fiber composite system, N. Igawa, T. Taguchi, L.L. Snead, Y. Katoh, S. Jitsukawa, A. Kohyama and J.C. McLaughlin 307–311 (2002) 1205
- Homogeneity and flexural properties of SiC/SiC composites prepared by CVI method, H. Araki, T. Noda, W. Yang and A. Kohyama 307–311 (2002) 1210
- Highly thermal conductive, sintered SiC fiber-reinforced 3D-SiC/SiC composites: experiments and finite-element analysis of the thermal diffusivity/conductivity, R. Yamada, N. Igawa, T. Taguchi and S. Jitsukawa 307–311 (2002) 1215
- The influences of irradiation temperature and helium production on the dimensional stability of silicon carbide, Y. Katoh, H. Kishimoto and A. Kohyama 307–311 (2002) 1221
- Fabrication and characterization of SiC_f/SiC composite by CVI using the whiskering process, J. Yeon Park, H. Soo Hwang, W.-J. Kim, J. Il Kim, J. Hye Son, B. Jun Oh and D. Jin Choi 307–311 (2002) 1227
- Silicon carbide-based materials for joining silicon carbide composites for fusion energy applications, C.A. Lewinsohn, R.H. Jones, P. Colombo and B. Riccardi 307–311 (2002) 1232
- Low activation brazing materials and techniques for SiC_f/SiC composites, B. Riccardi, C.A. Nannetti, T. Petrisor and M. Sacchetti 307–311 (2002) 1237
- Effect of OH-group content on optical properties of silica core fiber waveguides during reactor irradiation,

- O.A. Plaksin, V.A. Stepanov and T. Shikama 307–311 (2002) 1242
- Oxygen interstitial trapping in electron irradiated sapphire, A. Moroño and E.R. Hodgson 307–311 (2002) 1246
- Surface degradation effects on laser damage in KU1 quartz glass windows for LIDAR applications, P. Martin, A. Moroño and E.R. Hodgson 307–311 (2002) 1260
- In situ transmissivity measurements of KU1 quartz in the UV range under 14 MeV neutron irradiation, T. Sugie, T. Nishitani, S. Kasai, J. Kaneko and S. Yamamoto 307–311 (2002) 1264
- In situ luminescence and optical absorption measurements of silica in reactor core, T. Yoshida, T. Ii, T. Tanabe, H. Yoshida and K. Yamaguchi 307–311 (2002) 1268
- Electrical and dielectric properties of irradiated KU1 quartz glass from DC to 145 GHz, R. Vila, J. Mollá, R. Heidinger, A. Moroño and E.R. Hodgson 307–311 (2002) 1273
- Round-robin irradiation test of radiation resistant optical fibers for ITER diagnostic application, T. Kakuta, T. Shikama, T. Nishitani, B. Brichard, A. Krassilnikov, A. Tomashuk, S. Yamamoto and S. Kasai 307–311 (2002) 1277
- Macroscopic properties and microstructure changes of heavily neutron-irradiated β - Si_3N_4 by annealing, M. Akiyoshi, K. Ichikawa, T. Donomae and T. Yano 307–311 (2002) 1305
- Plasma sprayed coatings for RF wave absorption, S. Nanobashvili, J. Matějček, F. Žáček, J. Stöckel, P. Chráska and V. Brožek 307–311 (2002) 1334
- Compatibility of materials for fusion reactors with Pb–17Li, F. Barbier, Ph. Deloffre and A. Terlain 307–311 (2002) 1351
- Deuterium transport in SiC_f/SiC composites, G.A. Esteban, A. Perujo, F. Legarda, L.A. Sedano and B. Riccardi 307–311 (2002) 1430
- Steels, Austenitic**
- Damage of structural materials for fusion devices under pulsed ion and high temperature plasma beams, V.N. Pimenov, E.V. Dyo-mina, L.I. Ivanov, S.A. Maslyayev, V.A. Gribkov, R. Miklaszewski, M. Scholz, A.V. Dubrovsky, I.V. Volobuev, Yu.E. Ugaste, F. Mezzetti, P. De Chiara, L. Pizzo, B. Kolman and A. Szydłowski 307–311 (2002) 95
- Experimental determination of the effect of helium on the fracture toughness of steel, L.L. Snead, R.E. Stoller, M.A. Sokolov and S. Maloy 307–311 (2002) 187
- Effect of periodic temperature variations on the microstructure of neutron-irradiated metals, S.J. Zinkle, N. Hashimoto, D.T. Hoelzer, A.L. Qualls, T. Muroga and B.N. Singh 307–311 (2002) 192
- Dissolution kinetics of intermetallics in aging austenitic steels during neutron irradiation, V.V. Sagaradze, V.M. Koloskov, B.N. Goshchitskii and V.A. Shabashov 307–311 (2002) 317
- The primary origin of dose rate effects on microstructural evolution of austenitic alloys during neutron irradiation, T. Okita, T. Sato, N. Sekimura, F.A. Garner and L.R. Greenwood 307–311 (2002) 322
- Effect of weld thermal cycle, stress and helium content on helium bubble formation in stainless steels, S. Kawano, F. Kano, C. Kinoshita, A. Hasegawa and K. Abe 307–311 (2002) 327
- Microstructure of neutron irradiated SS316L/DS-Cu joint, H. Watanabe, D.J. Edwards, Y. Aono and N. Yoshida 307–311 (2002) 335
- Effect of chemical composition on irradiation creep of stainless steels irradiated in the BOR-60 reactor at 420 °C, V.S. Neustroev and V.K. Shamardin 307–311 (2002) 343
- The performance of Chinese 316L and 316Ti stainless steel irradiated at 300, 400, 500 and 600 °C in HFIR JP-23 test capsule, J. Yu, D.S. Gelles, F.A. Garner, M.B. Toloczko, M.L. Hamilton, R.J. Kurtz and R.H. Jones 307–311 (2002) 357
- Temperature effect on characteristics of void population formed in the austenitic steel under neutron irradiation up to high damage dose, A.V. Kozlov, I.A. Portnykh, L.A. Skryabin and E.A. Kinev 307–311 (2002) 956
- Atomistic dynamical observation of grain boundary structural changes under electron irradiation, N. Sakaguchi, T. Shibayama, H. Kinoshita and H. Takahashi 307–311 (2002) 1003
- Comparative study: sensitization development in hot-isostatic-pressed cast and wrought structures type 316L(N)-IG stainless steel under isothermal heat treatment, K.I. Shutko and V.N. Belous 307–311 (2002) 1016

- Decay heat measurement of fusion related materials in an ITER-like neutron field, Y. Morimoto, K. Ochiai, F. Maekawa, M. Wada, T. Nishitani and H. Takeuchi 307–311 (2002) 1052
- Properties of copper–stainless steel HIP joints before and after neutron irradiation, S. Tähtinen, A. Laukkanen, B.N. Singh and P. Toft 307–311 (2002) 1547
- Characterization of 316L(N)-IG SS joint produced by hot isostatic pressing technique, J. Nakano, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, Y. Nemoto, H. Tsuji and S. Jitsukawa 307–311 (2002) 1568
- Re-weldability of neutron-irradiated stainless steels studied by multi-pass TIG welding, K. Nakata, M. Oishi, M. Koshiishi, T. Hashimoto, H. Anzai, Y. Saito and W. Kono 307–311 (2002) 1578
- Re-weldability tests of irradiated 316L(N) stainless steel using laser welding technique, H. Yamada, H. Kawamura, K. Tsuchiya, G. Kalinin, W. Kohnno and Y. Morishima 307–311 (2002) 1584
- Steels, Austenitic, Low C/N**
- Evaluation of in-pile and out-of-pile stress relaxation in 316L stainless steel under uniaxial loading, Y. Kaji, Y. Miwa, T. Tsukada, M. Kikuchi, S. Kita, M. Yonekawa, J. Nakano, H. Tsuji and H. Nakajima 307–311 (2002) 331
- Irradiation-assisted SCC susceptibility of HIPed 316LN-IG stainless steel irradiated at 473 K to 1 dpa, Y. Miwa, T. Tsukada, H. Tsuji and S. Jitsukawa 307–311 (2002) 347
- Swelling of cold-worked austenitic stainless steels irradiated in HFIR under spectrally tailored conditions, E. Wakai, N. Hashimoto, J.P. Robertson, T. Sawai and A. Hishinuma 307–311 (2002) 352
- Comparison of in-beam fatigue behavior between austenitic and ferritic steels at 60 °C, Y. Murase, J. Nagakawa and N. Yamamoto 307–311 (2002) 527
- Compatibility between Be₁₂Ti and SS316LN, H. Kawamura, M. Uchida and V. Shestakov 307–311 (2002) 638
- Activation analysis of structural materials irradiated by fusion and fission neutrons, Q. Huang, S. Zheng, Y. Chen and J. Li 307–311 (2002) 1031
- Experimental investigation of radioactivity induced in the fusion power plant structural material in Eurofer and in other steels by D–T neutrons, K. Seidel, R.A. Forrest, H. Freiesleben, V.D. Kovalchuk, D.V. Markovskij, D.V. Maximov and S. Unholzer 307–311 (2002) 1037
- Neutron irradiation effect on the mechanical properties of type 316L SS welded joints, S. Saito, K. Fukaya, S. Ishiyama, H. Amezawa, M. Yonekawa, F. Takada, Y. Kato, T. Takeda, H. Takahashi and M. Nakahira 307–311 (2002) 1573
- Steels, Austenitic, Stabilized**
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Kono-beev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Steels, Ferritic/Martensitic**
- Damage of structural materials for fusion devices under pulsed ion and high temperature plasma beams, V.N. Pimenov, E.V. Dyomina, L.I. Ivanov, S.A. Maslyaev, V.A. Gribkov, R. Miklaszewski, M. Scholz, A.V. Dubrovsky, I.V. Volobuev, Yu.E. Ugaste, F. Mezzetti, P. De Chiara, L. Pizzo, B. Kolman and A. Szydowski 307–311 (2002) 95
- Modeling the multiscale mechanics of flow localization-ductility loss in irradiation damaged bcc alloys, G.R. Odette, M.Y. He, E.G. Donahue, P. Spätig and T. Yamamoto 307–311 (2002) 171
- Effect of chemical composition on irradiation creep of stainless steels irradiated in the BOR-60 reactor at 420 °C, V.S. Neustroev and V.K. Shamardin 307–311 (2002) 343
- Effect of thermal cycling on impurity grain boundary segregation in maraging steel, A.M. Ilyin, I.L. Tazhibaeva and B.A. Borisov 307–311 (2002) 475
- Metallurgical properties of reduced activation martensitic steel Eurofer'97 in the as-received condition and after thermal ageing, P. Fernández, A.M. Lancha, J. Lapeña, M. Serrano and M. Hernández-Mayoral 307–311 (2002) 495
- Perspective of ODS alloys application in nuclear environments, S. Ukai and M. Fujiwara 307–311 (2002) 749
- Consolidation process study of 9Cr-ODS martensitic steels, S. Ukai, K. Hatakeyama, S. Mizuta, M. Fujiwara and T. Okuda 307–311 (2002) 758

- Structure, radiation resistance and thermal creep of ODS ferritic steels, B.N. Goshchitskii, V.V. Sagaradze, V.I. Shalaev, V.L. Arbutov, Y. Tian, W. Qun and S. Jiguang 307–311 (2002) 783
- Multiscale modeling study of pulsed damage accumulation in α -Fe under inertial fusion conditions, J.M. Perlado, D. Lodi, E. Domínguez, J. Prieto, M.J. Caturla and T. Díaz de la Rubia 307–311 (2002) 907
- Steels, Ferritic/Martensitic, Low Activation**
- Development of an extensive database of mechanical and physical properties for reduced-activation martensitic steel F82H, S. Jitsukawa, M. Tamura, B. van der Schaaf, R.L. Klueh, A. Alamo, C. Petersen, M. Schirra, P. Spaetig, G.R. Odette, A.A. Tavassoli, K. Shiba, A. Kohyama and A. Kimura 307–311 (2002) 179
- Microstructure of irradiated ferritic/martensitic steels in relation to mechanical properties, R. Schaeublin, D. Gelles and M. Victoria 307–311 (2002) 197
- Microstructural study of irradiated isotopically tailored F82H steel, E. Wakai, Y. Miwa, N. Hashimoto, J.P. Robertson, R.L. Klueh, K. Shiba, K. Abiko, S. Furuno and S. Jitsukawa 307–311 (2002) 203
- Recent results for the ferritics isotopic tailoring (FIST) experiment, D.S. Gelles, M.L. Hamilton, B.M. Oliver, L.R. Greenwood, S. Ohnuki, K. Shiba, Y. Kohno, A. Kohyama and J.P. Robertson 307–311 (2002) 212
- Creep behavior of reduced activation martensitic steel F82H injected with a large amount of helium, N. Yamamoto, Y. Murase, J. Nakagawa and K. Shiba 307–311 (2002) 217
- Pros and cons of nickel- and boron-doping to study helium effects in ferritic/martensitic steels, N. Hashimoto, R.L. Klueh and K. Shiba 307–311 (2002) 222
- Evolution of the mechanical properties and microstructure of ferritic-martensitic steels irradiated in the BOR-60 reactor, V.K. Shamardin, V.N. Golovanov, T.M. Bulanova, A.V. Povstyanko, A.E. Fedoseev, Z.E. Ostrovsky and Yu.D. Goncharenko 307–311 (2002) 229
- Assessment of mechanical properties of the martensitic steel EURO-FER97 by means of punch tests, Y. Ruan, P. Spätig and M. Victoria 307–311 (2002) 236
- Tensile response of low activation ferritic steels irradiated in ORR at temperatures in the range 60–400 °C, M.L. Hamilton and D.S. Gelles 307–311 (2002) 256
- Evaluation of hardening behaviour of ion irradiated reduced activation ferritic/martensitic steels by an ultra-micro-indentation technique, M. Ando, H. Tanigawa, S. Jitsukawa, T. Sawai, Y. Katoh, A. Kohyama, K. Nakamura and H. Takeuchi 307–311 (2002) 260
- Microstructural evolution in modified 9Cr–1Mo ferritic/martensitic steel irradiated with mixed high-energy proton and neutron spectra at low temperatures, B.H. Sencer, F.A. Garner, D.S. Gelles, G.M. Bond and S.A. Maloy 307–311 (2002) 266
- Effect of triple ion beams in ferritic/martensitic steel on swelling behavior, E. Wakai, T. Sawai, K. Furuya, A. Naito, T. Aruga, K. Kikuchi, S. Yamashita, S. Ohnuki, S. Yamamoto, H. Naramoto and S. Jitsukawa 307–311 (2002) 278
- Phase stability of oxide dispersion-strengthened ferritic steels in neutron irradiation, S. Yamashita, K. Oka, S. Ohnuki, N. Akasaka and S. Ukai 307–311 (2002) 283
- Microstructural analysis of mechanically tested reduced-activation ferritic/martensitic steels, H. Tanigawa, T. Hirose, M. Ando, S. Jitsukawa, Y. Katoh and A. Kohyama 307–311 (2002) 293
- Void swelling in reduced activation ferritic/martensitic steels under ion-beam irradiation to high fluences, H. Ogiwara, H. Sakasegawa, H. Tanigawa, M. Ando, Y. Katoh and A. Kohyama 307–311 (2002) 299
- Radiation effects on low cycle fatigue properties of reduced activation ferritic/martensitic steels, T. Hirose, H. Tanigawa, M. Ando, A. Kohyama, Y. Katoh and M. Narui 307–311 (2002) 304
- Swelling behavior of TIG-welded F82H IEA heat, T. Sawai, E. Wakai, T. Tomita, A. Naito and S. Jitsukawa 307–311 (2002) 312
- Ferritic/martensitic steels – overview of recent results, R.L. Klueh, D.S. Gelles, S. Jitsukawa, A. Kimura, G.R. Odette, B. van der Schaaf and M. Victoria 307–311 (2002) 455
- Investigation of heat treatment conditions on the structure of 12% chromium reduced activation steels, M.V. Leonteva-Smirnova,

- A.G. Ioltukhovskiy, G.A. Arutiunova, A.V. Tselishev and V.M. Chernov 307–311 (2002) 466
- Thermal fatigue crack propagation behaviour of F82H ferritic steel, Y. Kudo, K. Kikuchi and M. Saito 307–311 (2002) 471
- Behavior of Eurofer97 reduced activation martensitic steel upon heating and continuous cooling, A. Danón and A. Alamo 307–311 (2002) 479
- Tensile and fracture toughness properties of MA957: implications to the development of nanocomposited ferritic alloys, M.J. Alinger, G.R. Odette and G.E. Lucas 307–311 (2002) 484
- Effects of precipitation morphology on toughness of reduced activation ferritic/martensitic steels, H. Sakasegawa, T. Hirose, A. Kohyama, Y. Katoh, T. Harada, K. Asakura and T. Kumagai 307–311 (2002) 490
- Thermo-mechanical fatigue behavior of reduced activation ferrite/martensite stainless steels, C. Petersen and D. Rodrian 307–311 (2002) 500
- In situ phase characterization in tempering and aging of Fe–Cr–W steels, N. Inoue, T. Muroga, A. Nishimura, K. Oguri, H. Yabe, S. Uchida and Y. Nishi 307–311 (2002) 505
- Mechanical and microstructural behaviour of isothermally and thermally fatigued ferritic/martensitic steels, A.F. Armas, C. Petersen, R. Schmitt, M. Avalos and I. Alvarez-Armas 307–311 (2002) 509
- Modelling of the effect of precipitates on work-hardening, ductility and impact behaviour of ferritic–martensitic Cr steels, D. Preininger 307–311 (2002) 514
- High resistance to helium embrittlement in reduced activation martensitic steels, A. Kimura, R. Kasada, K. Morishita, R. Sugano, A. Hasegawa, K. Abe, T. Yamamoto, H. Matsui, N. Yoshida, B.D. Wirth and T.D. Rubia 307–311 (2002) 521
- Comparison of in-beam fatigue behavior between austenitic and ferritic steels at 60 °C, Y. Murase, J. Nagakawa and N. Yamamoto 307–311 (2002) 527
- Heat resistant reduced activation 12% Cr steel of 16Cr12W2VTaB type-advanced structural material for fusion and fast breeder power reactors, A.G. Ioltukhovskiy, M.V. Leonteva-Smirnova, M.I. Solonin, V.M. Chernov, V.N. Golovanov, V.K. Shamardin, T.M. Bulanova, A.V. Povstyanko and A.E. Fedoseev 307–311 (2002) 532
- On the mechanical properties of the advanced martensitic steel EUROFER 97, P. Spätig, G.R. Odette, G.E. Lucas and M. Victoria 307–311 (2002) 536
- The effect of hot isostatic pressing parameters on microstructure and mechanical properties of Eurofer powder HIPed material, J.M. Gentzbittel, I. Chu and H. Burlet 307–311 (2002) 540
- Long-term high temperature oxidation behavior of ODS ferritics, B.A. Pint and I.G. Wright 307–311 (2002) 763
- Mechanical and microstructural properties of a hipped RAFM ODS-steel, R. Lindau, A. Möslang, M. Schirra, P. Schlossmacher and M. Klimenkov 307–311 (2002) 769
- Tensile and creep properties of an oxide dispersion-strengthened ferritic steel, R.L. Klueh, P.J. Maziasz, I.S. Kim, L. Heatherly, D.T. Hoelzer, N. Hashimoto, E.A. Kenik and K. Miyahara 307–311 (2002) 773
- Microstructure and mechanical properties of two ODS ferritic/martensitic steels, R. Schaeublin, T. Leguey, P. Spätig, N. Baluc and M. Victoria 307–311 (2002) 778
- Activation characteristics of a solid breeder blanket for a fusion power demonstration reactor, U. Fischer and H. Tsige-Tamirat 307–311 (2002) 798
- Effects of dislocation on thermal helium desorption from iron and ferritic steel, R. Sugano, K. Morishita, H. Iwakiri and N. Yoshida 307–311 (2002) 941
- On the transition toughness of two RA martensitic steels in the irradiation hardening regime: a mechanism-based evaluation, G.R. Odette, H.J. Rathbun, J.W. Rensman and F.P. van den Broek 307–311 (2002) 1011
- Towards a micro-mechanical description of the fracture behaviour for RAFM steels in the ductile-to-brittle transition regime, H. Riesch-Oppermann and E. Diegele 307–311 (2002) 1021
- Activation analysis of structural materials irradiated by fusion and fission neutrons, Q. Huang, S. Zheng, Y. Chen and J. Li 307–311 (2002) 1031
- Experimental investigation of radioactivity induced in the fusion power plant structural material in Eurofer and in other steels by D–T neutrons, K. Seidel, R.A. Forrest, H. Freiesleben, V.D. Kovalchuk, D.V. Markovskij, D.V. Maximov and S. Unholzer 307–311 (2002) 1037
- Compatibility of ferritic steels with Li₂BeF₄ molten salt breeder, H.

- Nishimura, T. Terai, M. Yamawaki, S. Tanaka, A. Sagara and O. Motojima 307–311 (2002) 1355
- Recent activities on the compatibility of the ferritic steel wall with the plasma in the JFT-2M tokamak, K. Tsuzuki, M. Sato, H. Kawashima, N. Isei, H. Kimura, H. Ogawa, K. Miyachi, M. Yamamoto and T. Shibata 307–311 (2002) 1386
- Mechanical and corrosion behaviour of EUROFER 97 steel exposed to Pb–17Li, G. Benamati, C. Fazio and I. Ricapito 307–311 (2002) 1391
- Wetting of Fe–7.5%Cr steel by molten Pb and Pb–17Li, P. Protsenko, A. Terlain, M. Jeymond and N. Eustathopoulos 307–311 (2002) 1396
- Permeation of deuterium and tritium through the martensitic steel F82H, Yu.N. Dolinsky, Yu.N. Zouev, I.A. Lyasota, I.V. Saprykin and V.V. Sagaradze 307–311 (2002) 1484
- Gas driven deuterium permeation through F82H martensitic steel, V. Shestakov, A. Pisarev, V. Sobolev, S. Kulsartov and I. Tazhibaeva 307–311 (2002) 1494
- Hydrogen permeability over the joint weld of the steel parts of fusion reactor with magnet confinement of plasma, V.V. Fedorov, E.V. Dyomina, T.M. Zasadny, L.I. Ivanov, M.D. Prusakova, N.A. Vinogradova and A.M. Zabelin 307–311 (2002) 1498
- Formation and migration of helium bubbles in Fe and Fe–9Cr ferritic alloy, K. Ono, K. Arakawa and K. Hojou 307–311 (2002) 1507
- Structural and mechanical properties of welded joints of reduced activation martensitic steels, G. Filacchioni, R. Montanari, M.E. Tata and L. Pilloni 307–311 (2002) 1563
- The ARBOR irradiation project, C. Petersen, V. Shamardin, A. Fedoseev, G. Shimansky, V. Efimov and J. Rensman 307–311 (2002) 1655
- Structural Materials**
- Scientific and engineering advances from fusion materials R&D, S.J. Zinkle, M. Victoria and K. Abe 307–311 (2002) 31
- Characteristics of unirradiated and 60 °C, 2.7 dpa irradiated Eurofer97, J. Rensman, H.E. Hofmans, E.W. Schuring, J. van Hoepen, J.B.M. Bakker, R. den Boef, F.P. van den Broek and E.D.L. van Essen 307–311 (2002) 250
- Microstructure and hardness of HIP-bonded regions in F82H blanket structures, K. Furuya, E. Wakai, M. Ando, T. Sawai, K. Nakamura, H. Takeuchi and A. Iwabuchi 307–311 (2002) 289
- Perspective of ODS alloys application in nuclear environments, S. Ukai and M. Fujiwara 307–311 (2002) 749
- Surface Effects**
- Plasma facing and high heat flux materials – needs for ITER and beyond, H. Bolt, V. Barabash, G. Federici, J. Linke, A. Loarte, J. Roth and K. Sato 307–311 (2002) 43
- Macroscopic erosion of divertor and first wall armour in future tokamaks, H. Würz, B. Bazylev, I. Landman, S. Pestchanyi and V. Safronov 307–311 (2002) 60
- Melt layer erosion of metallic armour targets during off-normal events in tokamaks, B. Bazylev and H. Wuerz 307–311 (2002) 69
- Deuterium release and microstructure of tantalum–tungsten twin limiter exposed in TEXTOR-94, T. Hirai, V. Philipps, T. Tanabe, M. Wada, A. Huber, S. Brezinsek, J. von Seggern, J. Linke, T. Ohgo, K. Ohya, P. Wienhold, A. Pospieszczyk and G. Sergienko 307–311 (2002) 79
- Erosion and re-deposition behavior of plasma facing materials due to tokamak plasma disruption, X. Liu, Z.Y. Xu, J.M. Chen, L.W. Yan and Y. Liu 307–311 (2002) 84
- Damage of structural materials for fusion devices under pulsed ion and high temperature plasma beams, V.N. Pimenov, E.V. Dyomina, L.I. Ivanov, S.A. Maslyaev, V.A. Gribkov, R. Miklaszewski, M. Scholz, A.V. Dubrovsky, I.V. Volobuev, Yu.E. Ugaste, F. Mezzetti, P. De Chiara, L. Pizzo, B. Kolman and A. Szydłowski 307–311 (2002) 95
- Simulation experimental investigation of plasma off-normal events on advanced silicon doped CFC-NS31, J.P. Bonal, C.H. Wu and D. Gosset 307–311 (2002) 100
- Melt layer behavior of metal targets irradiated by powerful plasma streams, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.E. Garkusha, V.A. Makhilaj, D.G. Solyakov, V.I. Tereshin and H. Wuerz 307–311 (2002) 106
- Effects of helium irradiation on high heat load properties of tungsten, K. Tokunaga, O. Yoshikawa, K. Makise and N. Yoshida 307–311 (2002) 130

- Erosion and migration of tungsten employed at the central column heat shield of ASDEX Upgrade, K. Krieger, X. Gong, M. Balden, D. Hildebrandt, H. Maier, V. Rohde, J. Roth, W. Schneider and The ASDEX Upgrade Team 307–311 (2002) 139
- Experimental and computer investigation of the diagnostic mirror behavior under sputtering and duct material deposition, V.V. Bandourko, E.A. Gridneva, N.N. Koborov, V.A. Kurnaev, D.V. Levchuk, S.S. Levchuk, N.N. Trifonov and A.V. Zhuravlev 307–311 (2002) 154
- The effect of free surfaces on cascade damage production in iron, R.E. Stoller 307–311 (2002) 935
- Surface blistering of ion irradiated SiC studied by grazing incidence electron microscopy, S. Igarashi, S. Muto and T. Tanabe 307–311 (2002) 1126
- Surface degradation effects on laser damage in KU1 quartz glass windows for LIDAR applications, P. Martin, A. Morofio and E.R. Hodgson 307–311 (2002) 1260
- Cellular automaton model for hydrogen transport dynamics through metallic surface, K. Shimura, K. Yamaguchi, T. Terai and M. Yamawaki 307–311 (2002) 1478
- Swelling: Metals and Alloys**
- Effect of triple ion beams in ferritic/martensitic steel on swelling behavior, E. Wakai, T. Sawai, K. Furuya, A. Naito, T. Aruga, K. Kikuchi, S. Yamashita, S. Ohnuki, S. Yamamoto, H. Naramoto and S. Jistukawa 307–311 (2002) 278
- Void swelling in reduced activation ferritic/martensitic steels under ion-beam irradiation to high fluences, H. Ogiwara, H. Sakasegawa, H. Tanigawa, M. Ando, Y. Katoh and A. Kohyama 307–311 (2002) 299
- Swelling behavior of TIG-welded F82H IEA heat, T. Sawai, E. Wakai, T. Tomita, A. Naito and S. Jitsukawa 307–311 (2002) 312
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Kono-beev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Swelling of cold-worked austenitic stainless steels irradiated in HFIR under spectrally tailored conditions, E. Wakai, N. Hashimoto, J.P. Robertson, T. Sawai and A. Hishinuma 307–311 (2002) 352
- Effect of solute atoms on swelling in Ni alloys and pure Ni under He⁺ ion irradiation, E. Wakai, T. Ezawa, J. Imamura, T. Takenaka, T. Tanabe and R. Oshima 307–311 (2002) 367
- Low void swelling in dispersion strengthened copper alloys under single-ion irradiation, M. Hatakeyama, H. Watanabe, M. Akiba and N. Yoshida 307–311 (2002) 444
- Effects of neutron irradiation at 70–200 °C in beryllium, V.P. Chakin, V.A. Kazakov, R.R. Melder, Yu.D. Goncharenko and I.B. Kupriyanov 307–311 (2002) 647
- The effect of bias factor variations on void nucleation in irradiated alloys, V.A. Borodin, A.E. Volkov and A.I. Ryazanov 307–311 (2002) 862
- Modeling of void nucleation under cascade damage conditions, H. Trinkaus and B.N. Singh 307–311 (2002) 900
- Swelling: Ceramics, Other Materials**
- Radiation swelling of SiC under neutron irradiation, A.I. Ryazanov, A.V. Klaptsov, A. Kohyama and H. Kishimoto 307–311 (2002) 1107
- Experimental simulation of the effect of transmuted helium on the mechanical properties of silicon carbide, L.L. Snead, R. Scholz, A. Hasegawa and A. Frias Rebelo 307–311 (2002) 1141
- The influences of irradiation temperature and helium production on the dimensional stability of silicon carbide, Y. Katoh, H. Kishimoto and A. Kohyama 307–311 (2002) 1221
- Theory and Modelling**
- Long-term fusion strategy in Europe, K. Lackner, R. Andreani, D. Campbell, M. Gasparotto, D. Maisonnier and M.A. Pick 307–311 (2002) 10
- Scientific and engineering advances from fusion materials R&D, S.J. Zinkle, M. Victoria and K. Abe 307–311 (2002) 31
- Experiment-based modelling of hardening and localized plasticity in metals irradiated under cascade damage conditions, B.N. Singh, N.M. Ghoniem and H. Trinkaus 307–311 (2002) 159
- Modeling the multiscale mechanics of flow localization-ductility loss in irradiation damaged bcc alloys, G.R. Odette, M.Y. He, E.G. Donahue, P. Spätig and T. Yamamoto 307–311 (2002) 171

- Modelling of the effect of precipitates on work-hardening, ductility and impact behaviour of ferritic-martensitic Cr steels, D. Preininger 307–311 (2002) 514
- Numerical simulation of ceramic breeder pebble bed thermal creep behavior, A. Ying, H. Huang and M. Abdou 307–311 (2002) 827
- Mechanisms of dislocation-defect interactions in irradiated metals investigated by computer simulations, N.M. Ghoniem, S.H. Tong, J. Huang, B.N. Singh and M. Wen 307–311 (2002) 843
- Atomistic study of the generation, interaction, accumulation and annihilation of cascade-induced defect clusters, Yu.N. Osetsky, D.J. Bacon, B.N. Singh and B. Wirth 307–311 (2002) 852
- The effect of bias factor variations on void nucleation in irradiated alloys, V.A. Borodin, A.E. Volkov and A.I. Ryazanov 307–311 (2002) 862
- Statistical analysis of cluster production efficiency in MD simulations of cascades in copper, Yu.N. Osetsky, D.J. Bacon and B.N. Singh 307–311 (2002) 866
- (100)-Loop characterization in α -Fe: comparison between experiments and modeling, J. Marian, B.D. Wirth, R. Schäublin, J.M. Perlado and T. Díaz de la Rubia 307–311 (2002) 871
- Thermal friction and Brownian motion of interstitial defects in irradiated materials, S.L. Dudarev 307–311 (2002) 881
- Modeling defect production in silica glass due to energetic recoils using molecular dynamics simulations, A. Kubota, M.-J. Caturla, S.A. Payne, T. Diaz de la Rubia and J.F. Latkowski 307–311 (2002) 891
- Modeling of void nucleation under cascade damage conditions, H. Trinkaus and B.N. Singh 307–311 (2002) 900
- The effect of free surfaces on cascade damage production in iron, R.E. Stoller 307–311 (2002) 935
- Absence of saturation of void growth in rate theory with anisotropic diffusion, T.S. Hudson, S.L. Dudarev and A.P. Sutton 307–311 (2002) 976
- Study of fundamental features of bias effect in metals under irradiation, E. Kuramoto, K. Ohsawa and T. Tsutsumi 307–311 (2002) 982
- Analytical model of radiation-induced precipitation at the surface of dilute binary alloy, V.A. Pechenkin, I.A. Stepanov and Yu.V. Konobeev 307–311 (2002) 998
- On the transition toughness of two RA martensitic steels in the irradiation hardening regime: a mechanism-based evaluation, G.R. Odette, H.J. Rathbun, J.W. Rensman and F.P. van den Broek 307–311 (2002) 1011
- Radiation damage parameters for modelling of FRM irradiation conditions at the RADEX facility of INR RAS, E.A. Koptelov, S.G. Lebedev, N.M. Sobolevsky, Yu.S. Strebkov and A.V. Subbotin 307–311 (2002) 1042
- Ab initio study on isotope exchange reactions of H₂ with surface hydroxyl groups in lithium silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs, Y. Katano and S. Jitsukawa 307–311 (2002) 1436
- Cellular automaton model for hydrogen transport dynamics through metallic surface, K. Shimura, K. Yamaguchi, T. Terai and M. Yamawaki 307–311 (2002) 1478
- Hydrogen and helium entrapment in flowing liquid metal plasma-facing surfaces, A. Hassanein 307–311 (2002) 1517
- Micromechanical modeling of master curve temperature shifts due to constraint loss, G.R. Odette and M.Y. He 307–311 (2002) 1624
- A model for radiation induced conductivity in neutral beam injector insulator gases, E.R. Hodgson and A. Moroño 307–311 (2002) 1660
- Conditions for effects of radiation pulsing, H. Trinkaus and H. Ullmaier 307–311 (2002) 1705
- Advanced Monte Carlo procedure for the IFMIF d-Li neutron source term based on evaluated cross section data, S.P. Simakov, U. Fischer, U. von Möllendorff, I. Schmuck, A.Yu. Konobeev, Yu.A. Korovin and P. Pereslavitsev 307–311 (2002) 1710
- Thermal Reactor Materials**
- Void swelling at low displacement rates in annealed 12X18H9T stainless steel at 4–56 dpa and 280–332 °C, S.I. Porollo, Yu.V. Konobeev, A.M. Dvoriashin, A.N. Vorobjev, V.M. Krigan and F.A. Garner 307–311 (2002) 339
- Thermal Shock**
- Macroscopic erosion of divertor and first wall armour in future tokamaks, H. Würz, B. Bazylev, I. Landman, S. Pestchanyi and V. Safronov 307–311 (2002) 60

- Simulation experimental investigation of plasma off-normal events on advanced silicon doped CFC-NS31, J.P. Bonal, C.H. Wu and D. Gosset 307-311 (2002) 100
- High heat load properties of high purity CVD tungsten, S. Tamura, K. Tokunaga and N. Yoshida 307-311 (2002) 735
- Improvement of the thermo-mechanical properties of fine grain graphite by doping with different carbides, C. García-Rosales, N. Ordás, E. Oyarzabal, J. Echeberria, M. Balden, S. Lindig and R. Behrisch 307-311 (2002) 1282
- Erosion mechanism and erosion products in carbon-based materials, N. Arkhipov, V. Bakhtin, V. Barsuk, S. Kurkin, E. Mironova, G. Piazza, V. Safronov, F. Scaffidi-Argentina, D. Toporkov, S. Vasenin, H. Würz and A. Zhitlukhin 307-311 (2002) 1364
- Thermodynamic Properties**
- Characterisation and thermal loading of low-Z coatings for the first wall of W7-X, D. Valenza, H. Greuner, G. Hofmann, S. Kötterl, J. Roth and H. Bolt 307-311 (2002) 89
- Effects of helium bombardment on the deuterium behavior in tungsten, H. Iwakiri, K. Morishita and N. Yoshida 307-311 (2002) 135
- Hydrogen solubility in V-4Cr-4Ti alloy, R.E. Buxbaum, D.L. Smith and J.-H. Park 307-311 (2002) 576
- Vaporization properties of the Sn-25 at.%Li alloy, R.A. Anderl, D.D. Jenson and G.F. Kessinger 307-311 (2002) 739
- Thermomechanical Treatment**
- Characterisation and thermal loading of low-Z coatings for the first wall of W7-X, D. Valenza, H. Greuner, G. Hofmann, S. Kötterl, J. Roth and H. Bolt 307-311 (2002) 89
- Non-destructive testing of CFC monoblock divertor mock-ups, K. Ezato, M. Dairaku, M. Taniguchi, K. Sato and M. Akiba 307-311 (2002) 144
- Thermal fatigue crack propagation behaviour of F82H ferritic steel, Y. Kudo, K. Kikuchi and M. Saito 307-311 (2002) 471
- Effect of thermal cycling on impurity grain boundary segregation in maraging steel, A.M. Ilyin, I.L. Tazhibaeva and B.A. Borisov 307-311 (2002) 475
- Material properties and consequences on the quality of core supra plasma facing components, J. Schlosser, A. Durocher, T. Huber, P. Chappuis, P. Garin, W. Knabl and B. Scheller 307-311 (2002) 686
- Characterisation of ceramic breeder materials for the helium cooled pebble bed blanket, G. Piazza, J. Reimann, E. Günther, R. Knitter, N. Roux and J.D. Lulewicz 307-311 (2002) 811
- Development of Be/DSCu HIP bonding and thermo-mechanical evaluation, T. Hatano, T. Kuroda, V. Barabash and M. Enoeda 307-311 (2002) 1537
- Thermophysical Properties**
- Change of thermal diffusivity and lattice constants of W-5% Re-HfC alloys irradiated in a fission reactor, M. Fujitsuka, I. Mutoh, T. Tanabe, B. Tsuchiya, M. Narui, T. Shikama and M. Sato 307-311 (2002) 426
- Behavior of Eurofer97 reduced activation martensitic steel upon heating and continuous cooling, A. Danón and A. Alamo 307-311 (2002) 479
- Influence of high dose neutron irradiation on thermal conductivity of beryllium, D.N. Syslov, V.P. Charkin and R.N. Latypov 307-311 (2002) 664
- Isotope separation of silicon and molybdenum using a free electron laser, T. Noda, H. Suzuki, H. Araki, J.L. Lyman and B.E. Newnam 307-311 (2002) 715
- Optimizing the transverse thermal conductivity of 2D-SiC_f/SiC composites. I. Modeling, G.E. Youngblood, D.J. Senor and R.H. Jones 307-311 (2002) 1112
- Optimizing the transverse thermal conductivity of 2D-SiC_f/SiC composites, II. Experimental, G.E. Youngblood, D.J. Senor, R.H. Jones and W. Kowbel 307-311 (2002) 1120
- Irradiation effects on thermal expansion of SiC/SiC composite materials, M. Ishihara, S. Baba, T. Hoshiya and T. Shikama 307-311 (2002) 1168
- Development of 2D and 3D Hi-Nicalon fibres/SiC matrix composites manufactured by a combined CVI-PIP route, C.A. Nannetti, B. Riccardi, A. Ortona, A. La Barbera, E. Scafè and G. Vekinis 307-311 (2002) 1196
- High thermal conductivity of graphite fiber silicon carbide composites for fusion reactor application, L.L. Snead, M. Balden, R.A. Causey and H. Atsumi 307-311 (2002) 1200
- Highly thermal conductive, sintered SiC fiber-reinforced 3D-SiC/SiC composites: experiments and finite-element analysis of the thermal

- diffusivity/conductivity, R. Yamada, N. Igawa, T. Taguchi and S. Jitsukawa 307–311 (2002) 1215
- Improvement of the thermo-mechanical properties of fine grain graphite by doping with different carbides, C. García-Rosales, N. Ordás, E. Oyarzabal, J. Echeberria, M. Balden, S. Lindig and R. Behrisch 307–311 (2002) 1282
- The effect of low temperature neutron irradiation and annealing on the thermal conductivity of advanced carbon-based materials, V. Barabash, I. Mazul, R. Latypov, A. Pokrovsky and C.H. Wu 307–311 (2002) 1300
- Titanium, Titanium Alloys and Compounds**
- Phase stability and mechanical properties of irradiated Ti–Al–V intermetallic compound, T. Sawai, E. Wakai, S. Jitsukawa and A. Hishinuma 307–311 (2002) 389
- Oxide formation of a purified V–4Cr–4Ti alloy during heat treatment and ion irradiation, H. Watanabe, M. Suda, T. Muroga and N. Yoshida 307–311 (2002) 408
- Tensile and fracture toughness properties of unirradiated and neutron irradiated titanium alloys, S. Tähinen, P. Moilanen, B.N. Singh and D.J. Edwards 307–311 (2002) 416
- Irradiation behaviour of titanium alloys for ITER blanket modules flexible attachment, B.S. Rodchenkov, A.V. Kozlov, Yu.G. Kuznetsov, G.M. Kalinin and Yu.S. Strebkov 307–311 (2002) 421
- Surface segregation and oxidation of Ti in a V–Ti alloy, R. Hayakawa, Y. Hatano, K. Fujii, K.-i. Fukumoto, H. Matsui and K. Watanabe 307–311 (2002) 580
- Discontinuously reinforced titanium matrix composites for fusion applications, V. de Castro, T. Leguey, M.A. Monge, A. Muñoz, R. Pareja and M. Victoria 307–311 (2002) 691
- Structure–mechanics relationships in proton irradiated pure titanium, T. Leguey, N. Baluc, R. Schäublin and M. Victoria 307–311 (2002) 696
- Phase transformation in the γ -TiAl alloy induced by Ar ions, M. Song, K. Mitsuishi, M. Takeguchi, K. Furuya, T. Tanabe and T. Noda 307–311 (2002) 971
- Characterization of hydrogen barrier coatings for titanium-base alloys, T. Leguey, N. Baluc, F. Jansen and M. Victoria 307–311 (2002) 1329
- Tritium and Tritides**
- Tritium release properties of neutron-irradiated Be₁₂Ti, M. Uchida, E. Ishitsuka and H. Kawamura 307–311 (2002) 653
- Studies on retention of tritium implanted into tungsten by β -ray-induced X-ray spectrometry, M. Matsuyama, T. Murai, K. Yoshida, K. Watanabe, H. Iwakiri and N. Yoshida 307–311 (2002) 729
- In-pile test of Li₂TiO₃ pebble bed with neutron pulse operation, K. Tsuchiya, M. Nakamichi, A. Kikukawa, Y. Nagao, M. Enoda, T. Osaki, K. Ioki and H. Kawamura 307–311 (2002) 817
- In-pile performance of a double-walled tube and a tritium permeation barrier, A.J. Magielsen, K. Bakker, C. Chabrol, R. Conrad, J.G. van der Laan, E. Rigal and M.P. Stijkel 307–311 (2002) 832
- Evolution of a defect structure of Pd–Ag alloys during tritium exposure, V. Tebus, L. Rivkis, E. Dmitrievskaia, G. Arutunova, I. Golikov, N. Ryazantseva, V. Filin, V. Kapychev and V. Bulkin 307–311 (2002) 966
- First wall material issues and related activities at JET, F. Scaffidi-Argentina, S. Ciattaglia, P. Coad, R.-D. Penzhorn, V. Philipps and Contributors to the EFDA-JET Fusion Technology Task Force and Task Force E 307–311 (2002) 1411
- Helium and tritium kinetics in irradiated beryllium pebbles, E. Rabaglino, J.P. Hiernaut, C. Ronchi and F. Scaffidi-Argentina 307–311 (2002) 1424
- Ab initio study on isotope exchange reactions of H₂ with surface hydroxyl groups in lithium silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs, Y. Katano and S. Jitsukawa 307–311 (2002) 1436
- Imaging plate technique for determination of tritium distribution on graphite tiles of JT-60U, T. Tanabe, K. Miyasaka, K. Masaki, K. Kodama and N. Miya 307–311 (2002) 1441
- Effect of catalytic metals on tritium release from ceramic breeder materials, K. Munakata, Y. Yokoyama, A. Koga, N. Nakashima, S. Beloglazov, T. Takeishi, M. Nishikawa, R.-D. Penzhorn, K. Kawamoto, H. Moriyama, Y. Morimoto and K. Okuno 307–311 (2002) 1451
- Tritium release from neutron-irradiated Li₂O sintered pellets: fluence dependence, T. Tanifuji, D. Yamaki and S. Jitsukawa 307–311 (2002) 1456

- Exchange of tritium implanted into oxide ceramics for protium by exposure to air vapors at room temperature, K. Morita, H. Suzuki, K. Soda, H. Iwahara, H. Nakamura, T. Hayasi and M. Nishi 307–311 (2002) 1461
- Permeation of deuterium and tritium through the martensitic steel F82H, Yu.N. Dolinsky, Yu.N. Zouev, I.A. Lyasota, I.V. Saprykin and V.V. Sagaradze 307–311 (2002) 1484
- Possible techniques for the detritiation of first wall materials from fusion machines, N. Bekris, C. Caldwell-Nichols, L. Doerr, M. Glugla, R.-D. Penzhorn and H. Ziegler 307–311 (2002) 1649
- Tungsten, Tungsten Alloys and Compounds**
- Deuterium release and microstructure of tantalum–tungsten twin limiter exposed in TEXTOR-94, T. Hirai, V. Philipps, T. Tanabe, M. Wada, A. Huber, S. Brezinsek, J. von Seggern, J. Linke, T. Ohgo, K. Ohya, P. Wienhold, A. Pospieszczyk and G. Sergienko 307–311 (2002) 79
- Overview of fuel retention in composite and tungsten limiters, M. Rubel, V. Philipps, A. Pospieszczyk, T. Tanabe and S. Kötterl 307–311 (2002) 111
- Development of tungsten coated first wall and high heat flux components for application in ASDEX Upgrade, H. Maier, J. Luthin, M. Balden, S. Lindig, J. Linke, V. Rohde, H. Bolt and ASDEX Upgrade Team 307–311 (2002) 116
- Modification of tungsten coated carbon by low energy and high flux deuterium irradiation, K. Tokunaga, R.P. Doerner, R. Seraydarian, N. Noda, N. Yoshida, T. Sogabe, T. Kato and B. Schedler 307–311 (2002) 126
- Effects of helium irradiation on high heat load properties of tungsten, K. Tokunaga, O. Yoshikawa, K. Makise and N. Yoshida 307–311 (2002) 130
- Effects of helium bombardment on the deuterium behavior in tungsten, H. Iwakiri, K. Morishita and N. Yoshida 307–311 (2002) 135
- Erosion and migration of tungsten employed at the central column heat shield of ASDEX Upgrade, K. Krieger, X. Gong, M. Balden, D. Hildebrandt, H. Maier, V. Rohde, J. Roth, W. Schneider and The ASDEX Upgrade Team 307–311 (2002) 139
- Heat load to a tantalum–tungsten twin-test-limiter and the effect to high-Z core plasma concentration of TEXTOR-94, T. Ohgo, M. Wada, A. Pospieszczyk, W. Biel, K. Kondo, T. Tanabe, T. Hirai, V. Philipps, A. Huber, G. Sergienko, B. Schweer, G. Bertschinger and N. Noda 307–311 (2002) 149
- Change of thermal diffusivity and lattice constants of W–5% Re–HfC alloys irradiated in a fission reactor, M. Fujitsuka, I. Mutoh, T. Tanabe, B. Tsuchiya, M. Narui, T. Shikama and M. Sato 307–311 (2002) 426
- In situ phase characterization in tempering and aging of Fe–Cr–W steels, N. Inoue, T. Muroga, A. Nishimura, K. Oguri, H. Yabe, S. Uchida and Y. Nishi 307–311 (2002) 505
- Disruption tests on repaired tungsten by CVD coating, M. Taniguchi, K. Sato, K. Ezato, K. Yokoyama and M. Akiba 307–311 (2002) 719
- Flux dependence of deuterium retention in single crystal tungsten, M. Poon, R.G. Macaulay-Newcombe, J.W. Davis and A.A. Haasz 307–311 (2002) 723
- Studies on retention of tritium implanted into tungsten by β -ray-induced X-ray spectrometry, M. Matsuyama, T. Murai, K. Yoshida, K. Watanabe, H. Iwakiri and N. Yoshida 307–311 (2002) 729
- High heat load properties of high purity CVD tungsten, S. Tamura, K. Tokunaga and N. Yoshida 307–311 (2002) 735
- Decay heat measurement of fusion related materials in an ITER-like neutron field, Y. Morimoto, K. Ochiai, F. Maekawa, M. Wada, T. Nishitani and H. Takeuchi 307–311 (2002) 1052
- Solid state reaction between tungsten and amorphous carbon, Y. Hatanoto, M. Takamori, K. Matsuda, S. Ikeno, K. Fujii and K. Watanabe 307–311 (2002) 1339
- Compatibility of materials for fusion reactors with Pb–17Li, F. Barbier, Ph. Deloffre and A. Terlain 307–311 (2002) 1351
- Corrosion resistance of refractory metals in high-temperature water, Y. Ishijima, K. Kakiuchi, T. Furuya, H. Kurishita, M. Hasegawa, T. Igarashi and M. Kawai 307–311 (2002) 1369
- Hydrogen release from 800 MeV proton-irradiated tungsten, B.M. Oliver, T.J. Venhaus, R.A. Causey, F.A. Garner and S.A. Maloy 307–311 (2002) 1418
- Helium and hydrogen trapping in W and Mo single-crystals irradiated by He ions, S. Nagata, B. Tsuchiya, T. Sugawara, N. Ohtsu and T. Shikama 307–311 (2002) 1513

- Mechanical properties of HIP bonded W and Cu-alloys joint for plasma facing components, S. Saito, K. Fukaya, S. Ishiyama and K. Sato 307–311 (2002) 1542
- Uranium, Uranium Alloys**
- Solubility of uranium at very low concentration in RAFM steel, A. Paul, L.C. Alves, J.A. Odriozola and J.C. Soares 307–311 (2002) 544
- Vanadium, Vanadium Alloys and Compounds**
- Effect of periodic temperature variations on the microstructure of neutron-irradiated metals, S.J. Zinkle, N. Hashimoto, D.T. Hoelzer, A.L. Qualls, T. Muroga and B.N. Singh 307–311 (2002) 192
- Effects of solid transmutation and helium on microstructural evolution in neutron-irradiated vanadium, T. Sato, T. Okita and N. Sekimura 307–311 (2002) 385
- Effects of temperature change on microstructural evolution in vanadium alloys under ion irradiation up to high damage levels, N. Nita, T. Yamamoto, T. Iwai, K. Yasunaga, K. Fukumoto and H. Matsui 307–311 (2002) 398
- Effects of temperature change on vanadium alloys irradiated in HFIR, H. Watanabe, T. Muroga and N. Yoshida 307–311 (2002) 403
- Oxide formation of a purified V-4Cr-4Ti alloy during heat treatment and ion irradiation, H. Watanabe, M. Suda, T. Muroga and N. Yoshida 307–311 (2002) 408
- Microstructure in vanadium irradiated by simultaneous multi-ion beam of hydrogen, helium and nickel ions, I. Mukouda, Y. Shimomura, D. Yamaki, T. Nakazawa, T. Aruga and S. Jitsukawa 307–311 (2002) 412
- Vanadium alloys – overview and recent results, T. Muroga, T. Nagasaka, K. Abe, V.M. Chernov, H. Matsui, D.L. Smith, Z.-Y. Xu and S.J. Zinkle 307–311 (2002) 547
- Fabrication using a levitation melting method of V-4Cr-4Ti-Si-Al-Y alloys and their mechanical properties, T. Chuto, M. Satou, A. Hasegawa, K. Abe, T. Nagasaka and T. Muroga 307–311 (2002) 555
- Oxygen embrittlement of vanadium alloys with and without surface oxide formation, B.A. Pint and J.R. DiStefano 307–311 (2002) 560
- The influence of hydrogen on tensile properties of V-base alloys developed in China, J. Chen, Z. Xu and L. Yang 307–311 (2002) 566
- Fracture properties of high-purity V-4Cr-4Ti alloy (NIFS-HEAT-2) at room temperature, A. Nishimura, T. Nagasaka and T. Muroga 307–311 (2002) 571
- Hydrogen solubility in V-4Cr-4Ti alloy, R.E. Buxbaum, D.L. Smith and J.-H. Park 307–311 (2002) 576
- Uniaxial creep behavior of V-4Cr-4Ti alloy, K. Natesan, W.K. Soppet and A. Purohit 307–311 (2002) 585
- Influence of alloying and impurity element contents on V-Ti-Cr alloy properties, V.A. Evtikhin, I.E. Lyublinski, A.V. Vertkov, S.N. Votinov and A.I. Dedyurin 307–311 (2002) 591
- Investigating solute interactions in V-4Cr-4Ti based on tensile deformation behavior of vanadium, D.T. Hoelzer and A.F. Rowcliffe 307–311 (2002) 596
- Effects of doping elements on oxidation properties of V-Cr-Ti type alloys in several environments, M. Fujiwara, K. Natesan, M. Satou, A. Hasegawa and K. Abe 307–311 (2002) 601
- Performance of V-4Cr-4Ti material exposed to the DIII-D tokamak environment, H. Tsai, W.R. Johnson, Y. Yan, P.W. Trester, A. Bozek, J.F. King and D.L. Smith 307–311 (2002) 605
- High temperature performance of highly purified V-4Cr-4Ti alloy, NIFS-Heat1, K. Fukumoto, T. Yamamoto, N. Nakao, S. Takahashi and H. Matsui 307–311 (2002) 610
- Creep of V-4Cr-4Ti in a lithium environment, M.L. Grossbeck 307–311 (2002) 615
- Effect of impurity levels on precipitation behavior in the low-activation V-4Cr-4Ti alloys, N.J. Heo, T. Nagasaka, T. Muroga and H. Matsui 307–311 (2002) 620
- Hydride formation and fracture of vanadium alloys, P. Torres, K. Aoyagi, T. Suda, S. Watanabe and S. Ohnuki 307–311 (2002) 625
- Point defect behavior in electron irradiated V-4Cr-4Ti alloy, Q. Xu, T. Yoshiie and H. Mori 307–311 (2002) 886
- Effect of undersized solute atoms on point defect behavior in V-A (A=Fe, Cr and Si) binary alloys studied by using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 930
- Study of point defect behavior in V-Ti alloys using HVEM, T. Hayashi, K. Fukumoto and H. Matsui 307–311 (2002) 951
- In situ observation of glide motions of SIA-type loops in vanadium and

- V-5Ti under HVEM irradiation, T. Hayashi, K. Fukmuto and H. Matsui 307-311 (2002) 993
- Molecular dynamics simulation of vanadium using an interatomic potential fitted to finite temperature properties, M. Satou, S. Yip and K. Abe 307-311 (2002) 1007
- Effects of impurities on low activation characteristics of V-4Cr-4Ti alloy, Y. Wu, T. Muroga, Q. Huang, Y. Chen, T. Nagasaka and A. Sagara 307-311 (2002) 1026
- Activation analysis of structural materials irradiated by fusion and fission neutrons, Q. Huang, S. Zheng, Y. Chen and J. Li 307-311 (2002) 1031
- Development of CaO coatings by thermal and chemical vapor deposition, K. Natesan, M. Uz and D.L. Smith 307-311 (2002) 1323
- Kinetic features of the component interaction in the V[O]-Li[Ca] system, O.I. Yeliseyeva, V.M. Chernov and T.V. Tsaran 307-311 (2002) 1400
- In situ formation of CaO insulator coatings on vanadium alloys, D.L. Smith, J.-H. Park and K. Natesan 307-311 (2002) 1405
- Helium analysis from the DHCE-1 simulation experiment, D.L. Smith and H. Matsui 307-311 (2002) 1488
- Gas tungsten arc welding of vanadium alloys with impurity control, M.L. Grossbeck, J.F. King, T. Nagasaka and S.A. David 307-311 (2002) 1590
- Effects of post-weld heat treatment conditions on hardness, microstructures and impact properties of vanadium alloys, T. Nagasaka, T. Muroga, M.L. Grossbeck and T. Yamamoto 307-311 (2002) 1595
- Vitrification**
- Microstructure development and helium behavior in nickel and vanadium base alloys, A.N. Kalashnikov, I.I. Chernov, B.A. Kalin and S.Yu. Binyukova 307-311 (2002) 362
- Waste Materials**
- The zero waste option: clearance of activated and first wall/blanket materials, A. Ciampichetti, P. Rocco and M. Zucchetti 307-311 (2002) 1047