



Subject index

Amorphization and Amorphous Materials

- Alpha-decay damage and aqueous durability of actinide host phases in natural systems, G.R. Lumpkin 289 (2001) 136
- Heavy ion irradiation studies of columbite, brannerite, and pyrochlore structure types, G.R. Lumpkin, K.L. Smith and M.G. Blackford 289 (2001) 177

Analytical Instruments and Methods

- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Molecular dynamics refinement of topologically generated reconstructions of simulated irradiation cascades in silica networks, X. Yuan, V. Pulim and L.W. Hobbs 289 (2001) 71
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80
- Effects of Xe ion irradiation and subsequent annealing on the structural properties of magnesium-aluminate spinel, I.V. Afanasyev-Charkin, R.M. Dickerson, D. Wayne Cooke, B.L. Bennett, V.T. Gritsyna and K.E. Sickafus 289 (2001) 110
- Effects of fission product incorporation on the microstructure of cubic zirconia, L.M. Wang, S.X. Wang, S. Zhu and R.C. Ewing 289 (2001) 122
- Heavy-ion irradiation effects in $Gd_2(Ti_{2-x}Zr_x)O_7$ pyrochlores, B.D. Begg, N.J. Hess, D.E. McCready, S. Thevuthasan and W.J. Weber 289 (2001) 188
- Accumulation and thermal recovery of disorder in Au^{2+} -irradiated $SrTiO_3$, S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204

Beryllium, Beryllium Alloys and Compounds

- XPS characterization of beryllium carbide thin films formed via plasma deposition, Y. Xie, N.C. Morosoff and W.J. James 289 (2001) 48

Breeding Materials

- Development of SiC/SiC composites by PIP in combination with RS, M. Kotani, A. Kohyama and Y. Katoh 289 (2001) 37

- Lithium titanate pebbles reprocessing by wet chemistry, C. Alvani, P.L. Carconi, S. Casadio, V. Contini, A. Dibartolomeo, F. Pierdominici, A. Deptula, S. Lagos and C.A. Nannetti 289 (2001) 303

Carbon

- Tensile strength and fracture surface characterization of Hi-Nicalon™ SiC fibers, G.E. Youngblood, C. Lewinsohn, R.H. Jones and A. Kohyama 289 (2001) 1
- Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
- Kinetics of uranium release from Synroc phases, Y. Zhang, K.P. Hart, W.L. Bourcier, R.A. Day, M. Colella, B. Thomas, Z. Aly and A. Jostsons 289 (2001) 254
- Absorption of molten fluoride salts in glassy carbon, pyrographite and Hastelloy B, J. Vacik, H. Naramoto, J. Cervena, V. Hnatowicz, I. Peka and D. Fink 289 (2001) 308

Cavities (includes Voids, Holes)

- New mechanism for radiation defect production and aggregation in crystalline ceramics, V.I. Dubinko, A.A. Turkin, D.I. Vainshtein and H.W. den Hartog 289 (2001) 86

Ceramics (not listed elsewhere)

- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
- XPS characterization of beryllium carbide thin films formed via plasma deposition, Y. Xie, N.C. Morosoff and W.J. James 289 (2001) 48
- Long-term stability of ceramics in liquid lithium, B.A. Pint, L.D. Chitwood and J.R. Di Stefano 289 (2001) 52
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80

- New mechanism for radiation defect production and aggregation in crystalline ceramics, V.I. Dubinko, A.A. Turkin, D.I. Vainshtein and H.W. den Hartog 289 (2001) 86
- Determination of the defect creation mechanism in fluoroapatite, S. Soulet, J. Chaumont, J.-C. Krupa, J. Carpena and M.-O. Ruault 289 (2001) 194
- Optical emission due to ionic displacements in alkaline earth titanates, R. Cooper, K.L. Smith, M. Colella, E.R. Vance and M. Phillips 289 (2001) 199
- Accumulation and thermal recovery of disorder in Au²⁺-irradiated SrTiO₃, S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204
- Chemical Reactions** (*includes Electrochemical and Thermochemical Reactions*)
- Dissolution behaviour of magnetite film formed over carbon steel in dilute organic acid media, A.A.M. Prince, S. Velmurugan, S.V. Narasimhan, C. Ramesh, N. Murugesan, P.S. Raghavan and R. Gopalan 289 (2001) 281
- Lithium titanate pebbles reprocessing by wet chemistry, C. Alvani, P.L. Carconi, S. Casadio, V. Contini, A. Dibartolomeo, F. Pierdominici, A. Deptula, S. Lagos and C.A. Nannetti 289 (2001) 303
- Formation of nitrides at the surface of U–Zr alloys, M. Akabori, A. Itoh and T. Ogawa 289 (2001) 342
- Coatings and Coated Particles**
- Long-term stability of ceramics in liquid lithium, B.A. Pint, L.D. Chitwood and J.R. Di Stefano 289 (2001) 52
- Compatibility and Corrosion** (*include Stress Corrosion Cracking*)
- Long-term stability of ceramics in liquid lithium, B.A. Pint, L.D. Chitwood and J.R. Di Stefano 289 (2001) 52
- Investigation of models to predict the corrosion of steels in flowing liquid lead alloys, F. Balbaud-Célérier and F. Barbier 289 (2001) 227
- Dissolution behaviour of magnetite film formed over carbon steel in dilute organic acid media, A.A.M. Prince, S. Velmurugan, S.V. Narasimhan, C. Ramesh, N. Murugesan, P.S. Raghavan and R. Gopalan 289 (2001) 281
- Absorption of molten fluoride salts in glassy carbon, pyrographite and Hastelloy B, J. Vacik, H. Naramoto, J. Cervena, V. Hnatowicz, I. Peka and D. Fink 289 (2001) 308
- Shadow corrosion or crevice corrosion?, F. Garzarolli, P.B. Hoffmann and A. Seibold 289 (2001) 338
- Composite Materials**
- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30
- Development of SiC/SiC composites by PIP in combination with RS, M. Kotani, A. Kohyama and Y. Katoh 289 (2001) 37
- Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
- Creep and Stress Relaxation**
- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Short-time creep and rupture tests on high burnup fuel rod cladding, W. Goll, H. Spilker and E.H. Toscano 289 (2001) 247
- Crystallographic Properties**
- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Heavy ion irradiation studies of columbite, brannerite, and pyrochlore structure types, G.R. Lumpkin, K.L. Smith and M.G. Blackford 289 (2001) 177
- Defects and Defect Structures** (*excludes by Irradiation*)
- New mechanism for radiation defect production and aggregation in crystalline ceramics, V.I. Dubinko, A.A. Turkin, D.I. Vainshtein and H.W. den Hartog 289 (2001) 86
- Oxygen potential and defect structure of the solid solution, Mg–Gd–UO₂, T. Fujino, N. Sato, K. Yamada, M. Okazaki, K. Fukuda, H. Serizawa and T. Shiratori 289 (2001) 270
- Dislocations**
- Behaviour of implanted xenon in yttria-stabilised zirconia as inert matrix of a nuclear fuel, C. Degueldre, M. Pouchon, M. Döbeli, K. Sickafus, K. Hojou, G. Ledergerber and S. Abolhassani-Dadras 289 (2001) 115

Electron Irradiation

- Effects of fission product incorporation on the microstructure of cubic zirconia, L.M. Wang, S.X. Wang, S. Zhu and R.C. Ewing 289 (2001) 122
- Optical emission due to ionic displacements in alkaline earth titanates, R. Cooper, K.L. Smith, M. Colella, E.R. Vance and M. Phillips 289 (2001) 199
- Effect of molybdenum on electron radiation damage of Zr-base alloys, J.H. Lee, S.K. Hwang, K. Yasuda and C. Kinoshita 289 (2001) 334

Electron Microscopy

- Tensile strength and fracture surface characterization of Hi-Nicalon™ SiC fibers, G.E. Youngblood, C. Lewinsohn, R.H. Jones and A. Kohyama 289 (2001) 1
- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30
- Effects of Xe ion irradiation and subsequent annealing on the structural properties of magnesium-aluminate spinel, I.V. Afanasyev-Charkin, R.M. Dickerson, D. Wayne Cooke, B.L. Bennett, V.T. Gritsyna and K.E. Sickafus 289 (2001) 110
- Hydrogen-damage interactions in yttria-stabilized zirconia, V. Shutthanandan, S. Thevuthasan, J.S. Young, T.M. Orlando and W.J. Weber 289 (2001) 128
- Alpha-decay damage and aqueous durability of actinide host phases in natural systems, G.R. Lumpkin 289 (2001) 136
- Heavy ion irradiation studies of columbite, brannerite, and pyrochlore structure types, G.R. Lumpkin, K.L. Smith and M.G. Blackford 289 (2001) 177

Environmental Effects

- Long-term stability of ceramics in liquid lithium, B.A. Pint, L.D. Chitwood and J.R. Di Stefano 289 (2001) 52

Experimental Techniques

- Tensile strength and fracture surface characterization of Hi-Nicalon™ SiC fibers, G.E. Youngblood, C. Lewinsohn, R.H. Jones and A. Kohyama 289 (2001) 1
- Failure mechanisms in continuous-fiber ceramic composites in fusion energy environments, C.A. Lewinsohn, C.H. Henager, G.E. Youngblood, R.H. Jones, E. Lara-Curzio and R. Scholz 289 (2001) 10

Fabrication

- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S.

- Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30

First Wall Materials

- Failure mechanisms in continuous-fiber ceramic composites in fusion energy environments, C.A. Lewinsohn, C.H. Henager, G.E. Youngblood, R.H. Jones, E. Lara-Curzio and R. Scholz 289 (2001) 10

Fission Products

- Behaviour of implanted xenon in yttria-stabilised zirconia as inert matrix of a nuclear fuel, C. Degueldre, M. Pouchon, M. Döbeli, K. Sickafus, K. Hojou, G. Ledergerber and S. Abolhassani-Dadras 289 (2001) 115
- Effects of fission product incorporation on the microstructure of cubic zirconia, L.M. Wang, S.X. Wang, S. Zhu and R.C. Ewing 289 (2001) 122
- Gibbs energy of formation of Ba(OH)₂ vapor species using the transpiration technique, M. Ali (Basu), R. Mishra, A.S. Kerkar, S.R. Bharadwaj and D. Das 289 (2001) 243

Fracture and Fracture Toughness

- Tensile strength and fracture surface characterization of Hi-Nicalon™ SiC fibers, G.E. Youngblood, C. Lewinsohn, R.H. Jones and A. Kohyama 289 (2001) 1
- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30

Gamma Irradiation

- Preliminary study of irradiation effects on thorium phosphate-diphosphate, E. Pichot, N. Dacheux, J. Emery, J. Chaumont, V. Brandel and M. Genet 289 (2001) 219

Heat Treatment

- Physical property change of heavily neutron-irradiated Si₃N₄ and SiC by thermal annealing, T. Yano, M. Akiyoshi, K. Ichikawa, Y. Tachi and T. Iseki 289 (2001) 102
- Behaviour of implanted xenon in yttria-stabilised zirconia as inert matrix of a nuclear fuel, C. Degueldre, M. Pouchon, M. Döbeli, K. Sickafus, K. Hojou, G. Ledergerber and S. Abolhassani-Dadras 289 (2001) 115

Hydrogen and Hydrides (includes Deuterium and Deuterides)

- Hydrogen-damage interactions in yttria-stabilized zirconia, V. Shutthanandan, S. Thevuthasan, J.S. Young, T.M. Orlando and W.J. Weber 289 (2001) 128

- Co-permeation of deuterium and hydrogen through Pd, K. Kizu, A. Pisarev and T. Tanabe 289 (2001) 291
- Thermophysical properties of zirconium hydride and uranium–zirconium hydride, B. Tsuchiya, J. Huang, K. Konashi, M. Teshigawara and M. Yamawaki 289 (2001) 329
- Interfaces**
- Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80
- Ion Irradiation**
- Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80
- Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC, W. Jiang, W.J. Weber, S. Thevuthasan and V. Shutthanandan 289 (2001) 96
- Effects of Xe ion irradiation and subsequent annealing on the structural properties of magnesium-aluminate spinel, I.V. Afanasyev-Charkin, R.M. Dickerson, D. Wayne Cooke, B.L. Bennett, V.T. Gritsyna and K.E. Sickafus 289 (2001) 110
- Effects of fission product incorporation on the microstructure of cubic zirconia, L.M. Wang, S.X. Wang, S. Zhu and R.C. Ewing 289 (2001) 122
- Hydrogen–damage interactions in yttria-stabilized zirconia, V. Shutthanandan, S. Thevuthasan, J.S. Young, T.M. Orlando and W.J. Weber 289 (2001) 128
- Heavy ion irradiation studies of columbite, brannerite, and pyrochlore structure types, G.R. Lumpkin, K.L. Smith and M.G. Blackford 289 (2001) 177
- Heavy-ion irradiation effects in $Gd_2(Ti_{2-x}Zr_x)O_7$ pyrochlores, B.D. Begg, N.J. Hess, D.E. McCready, S. Thevuthasan and W.J. Weber 289 (2001) 188
- Determination of the defect creation mechanism in fluoroapatite, S. Soulet, J. Chaumont, J.-C. Krupa, J. Carpena and M.-O. Ruault 289 (2001) 194
- Accumulation and thermal recovery of disorder in Au^{2+} -irradiated $SrTiO_3$, S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204
- Irradiation** (not listed elsewhere, includes Irradiation History or Schedule)
- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Kinetics**
- Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC, W. Jiang, W.J. Weber, S. Thevuthasan and V. Shutthanandan 289 (2001) 96
- Kinetics of uranium release from Synroc phases, Y. Zhang, K.P. Hart, W.L. Bourcier, R.A. Day, M. Colella, B. Thomas, Z. Aly and A. Jostsons 289 (2001) 254
- Liquid Metals**
- Long-term stability of ceramics in liquid lithium, B.A. Pint, L.D. Chitwood and J.R. Di Stefano 289 (2001) 52
- Low Activation and Low Activation Materials** (includes Reduced Activation)
- Failure mechanisms in continuous-fiber ceramic composites in fusion energy environments, C.A. Lewinsohn, C.H. Henager, G.E. Youngblood, R.H. Jones, E. Lara-Curzio and R. Scholz 289 (2001) 10
- Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
- Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
- The effect of manganese on the strain-induced martensitic transformation and high temperature wear resistance of Fe-20Cr-1C-1Si hardfacing alloy, J.-k. Kim, G.-m. Kim and S.-j. Kim 289 (2001) 263
- Magnesium, Magnesium Alloys and Compounds**
- Oxygen potential and defect structure of the solid solution, Mg-Gd- UO_2 , T. Fujino, N. Sato, K. Yamada, M. Okazaki, K. Fukuda, H. Serizawa and T. Shiratori 289 (2001) 270
- Mathematical and Computational Methods**
- Computational analysis of creep fracture deformation in SiC/SiC composites, H. Serizawa, M. Ando, C.A. Lewinsohn and H. Murakawa 289 (2001) 16
- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Molecular dynamics refinement of topologically generated reconstructions of simulated irradiation cascades in silica networks, X. Yuan, V. Pulim and L.W. Hobbs 289 (2001) 71

- Computational study of plutonium–neodymium fluorobriholite $\text{Ca}_9\text{Nd}_{0.5}\text{Pu}_{0.5}(\text{SiO}_4)(\text{PO}_4)_5\text{F}_2$ thermodynamic properties, C. Meis 289 (2001) 167
- Mechanical Properties** (*not listed elsewhere*)
 Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
 Short-time creep and rupture tests on high burnup fuel rod cladding, W. Goll, H. Spilker and E.H. Toscano 289 (2001) 247
 The effect of manganese on the strain-induced martensitic transformation and high temperature wear resistance of Fe–20Cr–1C–1Si hardfacing alloy, J.-k. Kim, G.-m. Kim and S.-j. Kim 289 (2001) 263
- Metals, Alloys and Compounds** (*not listed elsewhere*)
 Co-permeation of deuterium and hydrogen through Pd, K. Kizu, A. Pisarev and T. Tanabe 289 (2001) 291
- Microstructure and Texture** (*excludes by Irradiation*)
 Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30
 New mechanism for radiation defect production and aggregation in crystalline ceramics, V.I. Dubinko, A.A. Turkin, D.I. Vainshtein and H.W. den Hartog 289 (2001) 86
- Neutron Irradiation**
 Physical property change of heavily neutron-irradiated Si_3N_4 and SiC by thermal annealing, T. Yano, M. Akiyoshi, K. Ichikawa, Y. Tachi and T. Iseki 289 (2001) 102
- Nickel, Nickel Alloys and Compounds**
 Absorption of molten fluoride salts in glassy carbon, pyrographite and Hastelloy B, J. Vacik, H. Naramoto, J. Cervena, V. Hnatowicz, I. Peka and D. Fink 289 (2001) 308
- Optical Microscopy**
 Pre-transition oxidation behaviour of pre-hydrated Zircaloy-2, M. Oskarsson, E. Ahlberg, U. Södervall, U. Andersson and K. Pettersson 289 (2001) 315
- Permeation**
 Co-permeation of deuterium and hydrogen through Pd, K. Kizu, A. Pisarev and T. Tanabe 289 (2001) 291
- Phase Equilibria** (*includes Constitution, Phase Stability, Phase Instability*)
 Formation of nitrides at the surface of U–Zr alloys, M. Akabori, A. Itoh and T. Ogawa 289 (2001) 342
- Phase Transformation** (*includes Evaporation, Sublimation*)
 Heavy-ion irradiation effects in $\text{Gd}_2(\text{Ti}_{2-x}\text{Zr}_x)\text{O}_7$ pyrochlores, B.D. Begg, N.J. Hess, D.E. McCready, S. Thevuthasan and W.J. Weber 289 (2001) 188
 The effect of manganese on the strain-induced martensitic transformation and high temperature wear resistance of Fe–20Cr–1C–1Si hardfacing alloy, J.-k. Kim, G.-m. Kim and S.-j. Kim 289 (2001) 263
- Plasma-Materials Interaction**
 XPS characterization of beryllium carbide thin films formed via plasma deposition, Y. Xie, N.C. Morosoff and W.J. James 289 (2001) 48
- Plutonium, Plutonium Alloys and Compounds**
 Computational study of plutonium–neodymium fluorobriholite $\text{Ca}_9\text{Nd}_{0.5}\text{Pu}_{0.5}(\text{SiO}_4)(\text{PO}_4)_5\text{F}_2$ thermodynamic properties, C. Meis 289 (2001) 167
- Polymers**
 Development of SiC/SiC composites by PIP in combination with RS, M. Kotani, A. Kohyama and Y. Katoh 289 (2001) 37
- Pores** (*includes Porosity, Fabrication Pores*)
 Development of SiC/SiC composites by PIP in combination with RS, M. Kotani, A. Kohyama and Y. Katoh 289 (2001) 37
- Processing**
 Tensile strength and fracture surface characterization of Hi-Nicalon™ SiC fibers, G.E. Youngblood, C. Lewinsohn, R.H. Jones and A. Kohyama 289 (2001) 1
 Development of SiC/SiC composites by PIP in combination with RS, M. Kotani, A. Kohyama and Y. Katoh 289 (2001) 37
 Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
 Lithium titanate pebbles reprocessing by wet chemistry, C. Alvani, P.L. Carconi, S. Casadio, V. Contini, A. Dibartolomeo, F. Pierdominici, A. Deptula, S. Lagos and C.A. Nannetti 289 (2001) 303
- Radiation Effects: Atomic Defects**
 New mechanism for radiation defect production and aggregation in crystalline ceramics, V.I. Dubinko, A.A. Turkin, D.I. Vainshtein and H.W. den Hartog 289 (2001) 86

- Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC, W. Jiang, W.J. Weber, S. Thevuthasan and V. Shutthanandan 289 (2001) 96
- Computational study of plutonium-neodymium fluorobrotholite $\text{Ca}_9\text{Nd}_{0.5}\text{Pu}_{0.5}(\text{SiO}_4)(\text{PO}_4)_5\text{F}_2$ thermodynamic properties, C. Meis 289 (2001) 167
- Optical emission due to ionic displacements in alkaline earth titanates, R. Cooper, K.L. Smith, M. Colella, E.R. Vance and M. Phillips 289 (2001) 199
- Accumulation and thermal recovery of disorder in Au^{2+} -irradiated SrTiO_3 , S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204
- Radiation Effects: Extended Defects, Microstructures**
- Properties and radiation effects in high-temperature pyrolyzed PIP-SiC/SiC, Y. Katoh, M. Kotani, H. Kishimoto, W. Yang and A. Kohyama 289 (2001) 42
- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Molecular dynamics refinement of topologically generated reconstructions of simulated irradiation cascades in silica networks, X. Yuan, V. Pulim and L.W. Hobbs 289 (2001) 71
- Hydrogen-damage interactions in yttria-stabilized zirconia, V. Shutthanandan, S. Thevuthasan, J.S. Young, T.M. Orlando and W.J. Weber 289 (2001) 128
- Accumulation and thermal recovery of disorder in Au^{2+} -irradiated SrTiO_3 , S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204
- Radiation Effects: Physical Properties**
- Physical property change of heavily neutron-irradiated Si_3N_4 and SiC by thermal annealing, T. Yano, M. Akiyoshi, K. Ichikawa, Y. Tachi and T. Iseki 289 (2001) 102
- Effects of Xe ion irradiation and subsequent annealing on the structural properties of magnesium-aluminate spinel, I.V. Afanasyev-Charkin, R.M. Dickerson, D. Wayne Cooke, B.L. Bennett, V.T. Gritsyna and K.E. Sickafus 289 (2001) 110
- Determination of the defect creation mechanism in fluoroapatite, S. Soulet, J. Chaumont, J.-C. Krupa, J. Carpena and M.-O. Ruault 289 (2001) 194
- Recrystallization, Recovery and Grain Growth**
- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Effects of Xe ion irradiation and subsequent annealing on the structural properties of magnesium-aluminate spinel, I.V. Afanasyev-Charkin, R.M. Dickerson, D. Wayne Cooke, B.L. Bennett, V.T. Gritsyna and K.E. Sickafus 289 (2001) 110
- Hydrogen-damage interactions in yttria-stabilized zirconia, V. Shutthanandan, S. Thevuthasan, J.S. Young, T.M. Orlando and W.J. Weber 289 (2001) 128
- Accumulation and thermal recovery of disorder in Au^{2+} -irradiated SrTiO_3 , S. Thevuthasan, W. Jiang, V. Shutthanandan and W.J. Weber 289 (2001) 204
- Segregation**
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80
- Silicon and Silicon Compounds**
- Failure mechanisms in continuous-fiber ceramic composites in fusion energy environments, C.A. Lewinsohn, C.H. Henager, G.E. Youngblood, R.H. Jones, E. Lara-Curzio and R. Scholz 289 (2001) 10
- Improvement of mechanical properties of SiC/SiC composites by various surface treatments of fibers, T. Hinoki, W. Yang, T. Nozawa, T. Shibayama, Y. Katoh and A. Kohyama 289 (2001) 23
- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30
- Molecular dynamics simulation of irradiation-induced amorphization of cubic silicon carbide, L. Malerba and J.M. Perlado 289 (2001) 57
- Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC, W. Jiang, W.J. Weber, S. Thevuthasan and V. Shutthanandan 289 (2001) 96
- Physical property change of heavily neutron-irradiated Si_3N_4 and SiC by thermal annealing, T. Yano, M. Akiyoshi, K. Ichikawa, Y. Tachi and T. Iseki 289 (2001) 102
- Alpha-decay damage and aqueous durability of actinide host phases in natural systems, G.R. Lumpkin 289 (2001) 136
- Steels, Austenitic**
- Investigation of models to predict the corrosion of steels in flowing liquid lead alloys, F. Balbaud-Célérier and F. Barbier 289 (2001) 227
- Steels, Ferritic**
- Investigation of models to predict the corrosion of steels in flowing liquid lead alloys, F. Balbaud-Célérier and F. Barbier 289 (2001) 227

- The effect of manganese on the strain-induced martensitic transformation and high temperature wear resistance of Fe-20Cr-1C-1Si hardfacing alloy, J.-k. Kim, G.-m. Kim and S.-j. Kim 289 (2001) 263
- Dissolution behaviour of magnetite film formed over carbon steel in dilute organic acid media, A.A.M. Prince, S. Velmurugan, S.V. Narasimhan, C. Ramesh, N. Murugesan, P.S. Raghavan and R. Gopalan 289 (2001) 281
- Structural Materials**
- Microstructural and mechanical characteristics of SiC/SiC composites with modified-RS process, S.P. Lee, Y. Katoh, J.S. Park, S. Dong, A. Kohyama, S. Suyama and H.K. Yoon 289 (2001) 30
- Surface Effects**
- XPS characterization of beryllium carbide thin films formed via plasma deposition, Y. Xie, N.C. Morosoff and W.J. James 289 (2001) 48
- Swelling**
- Physical property change of heavily neutron-irradiated Si₃N₄ and SiC by thermal annealing, T. Yano, M. Akiyoshi, K. Ichikawa, Y. Tachi and T. Iseki 289 (2001) 102
- Theory and Modelling**
- Structural stability of irradiated ceramics, P.M. Ossi 289 (2001) 80
- Thermodynamic Properties**
- Computational study of plutonium-neodymium fluorobrotholite Ca₉Nd_{0.5}Pu_{0.5}(SiO₄)(PO₄)₅F₂ thermodynamic properties, C. Meis 289 (2001) 167
- Gibbs energy of formation of Ba(OH)₂ vapor species using the transpiration technique, M. Ali (Basu), R. Mishra, A.S. Kerkar, S.R. Bharadwaj and D. Das 289 (2001) 243
- Oxygen potential and defect structure of the solid solution, Mg-Gd-UO₂, T. Fujino, N. Sato, K. Yamada, M. Okazaki, K. Fukuda, H. Serizawa and T. Shiratori 289 (2001) 270
- Thermophysical Properties**
- Thermophysical properties of zirconium hydride and uranium-zirconium hydride, B. Tsuchiya, J. Huang, K. Konashi, M. Teshigawara and M. Yamawaki 289 (2001) 329
- Thorium, Thorium Alloys and Compounds**
- Preliminary study of irradiation effects on thorium phosphate-diphosphate, E. Pichot, N. Dacheux, J. Emery, J. Chaumont, V. Brandel and M. Genet 289 (2001) 219
- Titanium, Titanium Alloys and Compounds**
- Alpha-decay damage and aqueous durability of actinide host phases in natural systems, G.R. Lumpkin 289 (2001) 136
- Optical emission due to ionic displacements in alkaline earth titanates, R. Cooper, K.L. Smith, M. Colella, E.R. Vance and M. Phillips 289 (2001) 199
- Tritium and Tritides**
- Lithium titanate pebbles reprocessing by wet chemistry, C. Alvani, P.L. Carconi, S. Casadio, V. Contini, A. Dibartolomeo, F. Pierdominici, A. Deptula, S. Lagos and C.A. Nannetti 289 (2001) 303
- Uranium, Uranium Alloys and Compounds**
- Kinetics of uranium release from Synroc phases, Y. Zhang, K.P. Hart, W.L. Bourcier, R.A. Day, M. Colella, B. Thomas, Z. Aly and A. Jostsons 289 (2001) 254
- Oxygen potential and defect structure of the solid solution, Mg-Gd-UO₂, T. Fujino, N. Sato, K. Yamada, M. Okazaki, K. Fukuda, H. Serizawa and T. Shiratori 289 (2001) 270
- Thermophysical properties of zirconium hydride and uranium-zirconium hydride, B. Tsuchiya, J. Huang, K. Konashi, M. Teshigawara and M. Yamawaki 289 (2001) 329
- Formation of nitrides at the surface of U-Zr alloys, M. Akabori, A. Itoh and T. Ogawa 289 (2001) 342
- Wastes**
- Computational study of plutonium-neodymium fluorobrotholite Ca₉Nd_{0.5}Pu_{0.5}(SiO₄)(PO₄)₅F₂ thermodynamic properties, C. Meis 289 (2001) 167
- Determination of the defect creation mechanism in fluoroapatite, S. Soulet, J. Chaumont, J.-C. Krupa, J. Carpena and M.-O. Ruault 289 (2001) 194
- Preliminary study of irradiation effects on thorium phosphate-diphosphate, E. Pichot, N. Dacheux, J. Emery, J. Chaumont, V. Brandel and M. Genet 289 (2001) 219
- Kinetics of uranium release from Synroc phases, Y. Zhang, K.P. Hart, W.L. Bourcier, R.A. Day, M. Colella, B. Thomas, Z. Aly and A. Jostsons 289 (2001) 254
- Zirconium, Zirconium Alloys and Compounds**
- Behaviour of implanted xenon in yttria-stabilised zirconia as inert matrix of a nuclear fuel, C. Degueldre, M. Pouchon, M. Döbeli, K. Sickafus, K. Hojou, G. Ledergerber and S. Abolhassani-Dadras 289 (2001) 115
- Effects of fission product incorporation on the microstructure of cubic zirconia, L.M. Wang, S.X. Wang, S. Zhu and R.C. Ewing 289 (2001) 122

- Short-time creep and rupture tests on high burnup fuel rod cladding, W. Goll, H. Spilker and E.H. Toscano 289 (2001) 247
- Pre-transition oxidation behaviour of pre-hydrided Zircaloy-2, M. Oskarsson, E. Ahlberg, U. Södervall, U. Andersson and K. Pettersson 289 (2001) 315
- Thermophysical properties of zirconium hydride and uranium-zirconium hydride, B. Tsuchiya, J. Huang, K. Konashi, M. Teshigawara and M. Yamawaki 289 (2001) 329
- Effect of molybdenum on electron radiation damage of Zr-base alloys, J.H. Lee, S.K. Hwang, K. Yasuda and C. Kinoshita 289 (2001) 334
- Shadow corrosion or crevice corrosion?, F. Garzarolli, P.B. Hoffmann and A. Seibold 289 (2001) 338
- Formation of nitrides at the surface of U-Zr alloys, M. Akabori, A. Itoh and T. Ogawa 289 (2001) 342