



Subject index

Actinides (*excludes Plutonium, Thorium and Uranium*)

- Application of normal pulse voltammetry to on-line monitoring of actinide concentrations in molten salt electrolyte, M. Iizuka, T. Inoue, O. Shirai, T. Iwai and Y. Arai 297 (2001) 43
- Determination of dissolution rates of spent fuel in carbonate solutions under different redox conditions with a flow-through experiment, S. Röllin, K. Spahiu and U.-B. Eklund 297 (2001) 231

Adsorption

- Surface inventory of tritium on Li_2TiO_3 , T. Kawagoe, M. Nishikawa, A. Baba and S. Beloglazov 297 (2001) 27

Aluminum, Aluminum Alloys and Compounds

- On the mechanism for dose rate dependence of stationary luminescence of F and F^+ centres excited by electron beam in $\alpha\text{-Al}_2\text{O}_3$, V.I. Meshakin and T. Tanabe 297 (2001) 149

Amorphization and Amorphous Materials

- Vitrification of liquid waste from nuclear power plants, J. Sheng, K. Choi and M.-J. Song 297 (2001) 7
- 90-19/U HLW-glass leaching mechanism in underground water, J. Sheng and S. Luo 297 (2001) 57
- Radiation damage and nanocrystal formation in uranium–niobium titanates, J. Lian, S.X. Wang, L.M. Wang and R.C. Ewing 297 (2001) 89
- EXAFS/XANES studies of plutonium-loaded sodalite/glass waste forms, M.K. Richmann, D.T. Reed, A.J. Kropf, S.B. Aase and M.A. Lewis 297 (2001) 303
- Temperature effects on the radiation stability and ion exchange capacity of smectites, B.X. Gu, L.M. Wang, L.D. Minc and R.C. Ewing 297 (2001) 345

Analytical Instruments and Methods

- EXAFS/XANES studies of plutonium-loaded sodalite/glass waste forms, M.K. Richmann, D.T. Reed, A.J. Kropf, S.B. Aase and M.A. Lewis 297 (2001) 303

Breeding Materials

- Surface inventory of tritium on Li_2TiO_3 , T. Kawagoe, M. Nishikawa, A. Baba and S. Beloglazov 297 (2001) 27
- An ab initio study on formation and desorption reactions of H_2O molecules from surface hydroxyl groups in silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs and Y. Katano 297 (2001) 69

Cavities (*includes Voids, Holes*)

- Effect of point defect interaction with bubble surface on the nucleation and growth of gas bubbles, R.E. Voskoboinikov and A.E. Volkov 297 (2001) 262
- Response of reduced activation ferritic steels to high-fluence ion-irradiation, H. Tanigawa, M. Ando, Y. Katoh, T. Hirose, H. Sakasegawa, S. Jitsukawa, A. Kohyama and T. Iwai 297 (2001) 279

Ceramics (*not listed elsewhere*)

- Surface inventory of tritium on Li_2TiO_3 , T. Kawagoe, M. Nishikawa, A. Baba and S. Beloglazov 297 (2001) 27
- Radiation damage and nanocrystal formation in uranium–niobium titanates, J. Lian, S.X. Wang, L.M. Wang and R.C. Ewing 297 (2001) 89
- Preliminary results on the leaching process of phosphate ceramics, potential hosts for actinide immobilization, L. Bois, M.J. Guittet, F. Carrot, P. Trocellier and M. Gautier-Soyer 297 (2001) 129
- Temperature effects on the radiation stability and ion exchange capacity of smectites, B.X. Gu, L.M. Wang, L.D. Minc and R.C. Ewing 297 (2001) 345

Chemical Reactions (*includes Electrochemical and Thermochemical Reactions*)

- 90-19/U HLW-glass leaching mechanism in underground water, J. Sheng and S. Luo 297 (2001) 57
- Investigation on the oxidation characteristics of copper-added modified Zircaloy-4 alloys in pressurized water at 360°C , H.S. Hong, J.S. Moon, S.J. Kim and K.S. Lee 297 (2001) 113
- Effect of a trivalent dopant, Gd^{3+} , on the oxidation of uranium dioxide, J.-G. Kim,

- Y.-K. Ha, S.-D. Park, K.-Y. Jee and W.-H. Kim 297 (2001) 327
- Cladding Materials**
The study of microstructural defects and mechanical properties in proton-irradiated Zr-1.0%Nb-1.0%Sn-0.1%Fe, P. Mukherjee, P.M.G. Nambissan, P. Barat, P. Sen, S.K. Bandyopadhyay, J.K. Chakravarty, S.L. Wadekar, S. Banerjee, S.K. Chattopadhyay, S.K. Chatterjee and M.K. Mitra 297 (2001) 341
- Compatibility and Corrosion (include Stress Corrosion Cracking)**
Hydrogen uptake and corrosion behavior of Zr-2.5Nb pressure tubes in Wolsong Unit 1, K.-N. Choo and Y.-S. Kim 297 (2001) 52
Oxide layers of Zr-1% Nb under PWR primary circuit conditions, G. Nagy, Z. Kerner, G. Battistig, A. Pintér-Csordás, J. Balogh and T. Pajkossy 297 (2001) 62
Measurement of hydriding susceptibility of Zircaloy cladding by the tube-burst technique at high pressure and high temperature, H.S. Hong and D.R. Olander 297 (2001) 107
A kinetic model for corrosion and precipitation in non-isothermal LBE flow loop, B.X. He, N. Li and M. Mineev 297 (2001) 214
- Crystallographic Properties**
Densification behaviour and sintering kinetics of PuO₂ pellets, T.R.G. Kutty, K.B. Khan, P.V. Hegde, A.K. Sengupta, S. Majumdar and D.S.C. Purushotham 297 (2001) 120
- Diffusion**
Coarsening-densification transition temperature in sintering of uranium dioxide, P. Balakrishna, B. Narasimha Murty, K.P. Chakraborty, R.N. Jayaraj and C. Ganguly 297 (2001) 35
Densification behaviour and sintering kinetics of PuO₂ pellets, T.R.G. Kutty, K.B. Khan, P.V. Hegde, A.K. Sengupta, S. Majumdar and D.S.C. Purushotham 297 (2001) 120
Diffusion reactions in titanium/Inconel-600 system, R.V. Patil, G.B. Kale and P.S. Gawde 297 (2001) 153
Diffusion reaction between Zr-2.5 wt% Nb alloy and martensitic grade 403 stainless steel, K. Bhanumurthy, R.V. Patil, D. Srivatsava, P.S. Gawde and G.B. Kale 297 (2001) 220
Nuclear microprobe analysis of ⁷Li profile induced in HfB₂ by a neutron irradiation, D. Simeone, X. Deschanel, D. Gosset, J.P. Bonal and E. Berthoumieux 297 (2001) 244
- Electrical Properties**
Accumulation and recovery of defects in ion-irradiated nanocrystalline gold, Y. Chimi, A. Iwase, N. Ishikawa, M. Kobiyama, T. Inami and S. Okuda 297 (2001) 355
- Electron Irradiation**
On the mechanism for dose rate dependence of stationary luminescence of F and F⁺ centres excited by electron beam in α-Al₂O₃, V.I. Meshakin and T. Tanabe 297 (2001) 149
Temperature effects on the radiation stability and ion exchange capacity of smectites, B.X. Gu, L.M. Wang, L.D. Minc and R.C. Ewing 297 (2001) 345
- Electron Microscopy**
Response of reduced activation ferritic steels to high-fluence ion-irradiation, H. Tanigawa, M. Ando, Y. Katoh, T. Hirose, H. Sakasegawa, S. Jitsukawa, A. Kohyama and T. Iwai 297 (2001) 279
- Experimental Techniques**
Application of normal pulse voltammetry to on-line monitoring of actinide concentrations in molten salt electrolyte, M. Iizuka, T. Inoue, O. Shirai, T. Iwai and Y. Arai 297 (2001) 43
- Fission Products**
Post-irradiation examination of high burnup Mg doped UO₂ in comparison with undoped UO₂, Mg-Nb doped UO₂ and Ti doped UO₂, T. Fujino, T. Shiratori, N. Sato, K. Fukuda, K. Yamada and H. Serizawa 297 (2001) 176
Determination of dissolution rates of spent fuel in carbonate solutions under different redox conditions with a flow-through experiment, S. Röllin, K. Spahiu and U.-B. Eklund 297 (2001) 231
EXAFS/XANES studies of plutonium-loaded sodalite/glass waste forms, M.K. Richmann, D.T. Reed, A.J. Kropf, S.B. Aase and M.A. Lewis 297 (2001) 303
- Fracture and Fracture Toughness**
Comparative analysis of pressure vessel integrity for various LOCA conditions, Ü. Çolak and O. Özdere 297 (2001) 271
Precipitation of reoriented hydrides and textural change of α-zirconium grains during delayed hydride cracking of Zr-2.5%Nb pressure tube, Y.S. Kim, Yu. Perlovich, M. Isaenkova, S.S. Kim and Y.M. Cheong 297 (2001) 292
- Fuels and Fuel Elements**
Coarsening-densification transition temperature in sintering of uranium dioxide,

- P. Balakrishna, B. Narasimha Murty, K.P. Chakraborty, R.N. Jayaraj and C. Ganguly 297 (2001) 35
- Characterisation of pre-transition oxides on Zircalloys, M. Oskarsson, E. Ahlberg, U. Andersson and K. Pettersson 297 (2001) 77
- What's new on plutonium up to 4000 K?, M. Boivineau 297 (2001) 97
- Determination of dissolution rates of spent fuel in carbonate solutions under different redox conditions with a flow-through experiment, S. Röllin, K. Spahiu and U.-B. Eklund 297 (2001) 231
- Effect of a trivalent dopant, Gd^{3+} , on the oxidation of uranium dioxide, J.-G. Kim, Y.-K. Ha, S.-D. Park, K.-Y. Jee and W.-H. Kim 297 (2001) 327
- An estimate of the high temperature, metal rich phase boundary of plutonium sesquioxide, R.I. Sheldon 297 (2001) 358
- Helium**
- Effect of point defect interaction with bubble surface on the nucleation and growth of gas bubbles, R.E. Voskoboinikov and A.E. Volkov 297 (2001) 262
- Response of reduced activation ferritic steels to high-fluence ion-irradiation, H. Tanigawa, M. Ando, Y. Katoh, T. Hirose, H. Sakasegawa, S. Jitsukawa, A. Kohyama and T. Iwai 297 (2001) 279
- Hydrogen and Hydrides (includes Deuterium and Deuterides)**
- Hydrogen uptake and corrosion behavior of Zr-2.5Nb pressure tubes in Wolsong Unit 1, K.-N. Choo and Y.-S. Kim 297 (2001) 52
- Measurement of hydriding susceptibility of Zircaloy cladding by the tube-burst technique at high pressure and high temperature, H.S. Hong and D.R. Olander 297 (2001) 107
- Precipitation of reoriented hydrides and textural change of α -zirconium grains during delayed hydride cracking of Zr-2.5%Nb pressure tube, Y.S. Kim, Yu. Perlovich, M. Isaenkova, S.S. Kim and Y.M. Cheong 297 (2001) 292
- Impact**
- Effects of carbide precipitation on the strength and Charpy impact properties of low carbon Mn-Ni-Mo bainitic steels, Y.-R. Im, Y.J. Oh, B.-J. Lee, J.H. Hong and H.-C. Lee 297 (2001) 138
- Ion Irradiation**
- Radiation damage and nanocrystal formation in uranium-niobium titanates, J. Lian, S.X. Wang, L.M. Wang and R.C. Ewing 297 (2001) 89
- Microstructure evolution in austenitic Fe-Cr-Ni alloys irradiated with protons: comparison with neutron-irradiated microstructures, J. Gan and G.S. Was 297 (2001) 161
- Response of reduced activation ferritic steels to high-fluence ion-irradiation, H. Tanigawa, M. Ando, Y. Katoh, T. Hirose, H. Sakasegawa, S. Jitsukawa, A. Kohyama and T. Iwai 297 (2001) 279
- The study of microstructural defects and mechanical properties in proton-irradiated Zr-1.0%Nb-1.0%Sn-0.1%Fe, P. Mukherjee, P.M.G. Nambissan, P. Barat, P. Sen, S.K. Bandyopadhyay, J.K. Chakravartty, S.L. Wadekar, S. Banerjee, S.K. Chattopadhyay, S.K. Chatterjee and M.K. Mitra 297 (2001) 341
- Accumulation and recovery of defects in ion-irradiated nanocrystalline gold, Y. Chimi, A. Iwase, N. Ishikawa, M. Kobiyama, T. Inami and S. Okuda 297 (2001) 355
- Joining**
- Diffusion reaction between Zr-2.5 wt% Nb alloy and martensitic grade 403 stainless steel, K. Bhanumurthy, R.V. Patil, D. Srivatsava, P.S. Gawde and G.B. Kale 297 (2001) 220
- Kinetics**
- Influence of the precursor and the calcination temperature on the dissolution of thorium dioxide, S. Hubert, K. Barthelet, B. Fourest, G. Lagarde, N. Dacheux and N. Baglan 297 (2001) 206
- A kinetic model for corrosion and precipitation in non-isothermal LBE flow loop, B.X. He, N. Li and M. Mineev 297 (2001) 214
- Liquid Metals**
- A kinetic model for corrosion and precipitation in non-isothermal LBE flow loop, B.X. He, N. Li and M. Mineev 297 (2001) 214
- Magnesium, Magnesium Alloys and Compounds**
- Thermodynamics of the UO_2 solid solution with magnesium and europium oxides, T. Fujino, N. Sato, K. Yamada, S. Nakama, K. Fukuda, H. Serizawa and T. Shiratori 297 (2001) 332
- Mathematical and Computational Methods**
- An ab initio study on formation and desorption reactions of H_2O molecules from surface hydroxyl groups in silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs and Y. Katano 297 (2001) 69
- Mechanical Properties (not listed elsewhere)**
- Texture dependent plastic behavior of Zr 702 at large strain, O. Castelnau, H. Francillette, B. Bacroix and R.A. Lebensohn 297 (2001) 14
- Irradiation effects on toughness behaviour and microstructure of VVER-type pres-

- sure vessel steels, J. Böhmert, H.-W. Viehrig and A. Ulbricht 297 (2001) 251
- Metals, Alloys and Compounds** (*not listed elsewhere*)
- Nuclear microprobe analysis of ^7Li profile induced in HfB_2 by a neutron irradiation, D. Simeone, X. Deschanel, D. Gosset, J.P. Bonal and E. Berthoumieux 297 (2001) 244
- Accumulation and recovery of defects in ion-irradiated nanocrystalline gold, Y. Chimi, A. Iwase, N. Ishikawa, M. Kobiyama, T. Inami and S. Okuda 297 (2001) 355
- Microstructure and Texture** (*excludes by Irradiation*)
- Texture dependent plastic behavior of Zr 702 at large strain, O. Castelneau, H. Francillette, B. Bacroix and R.A. Lebensohn 297 (2001) 14
- Effects of carbide precipitation on the strength and Charpy impact properties of low carbon Mn–Ni–Mo bainitic steels, Y.-R. Im, Y.J. Oh, B.-J. Lee, J.H. Hong and H.-C. Lee 297 (2001) 138
- Precipitation of reoriented hydrides and textural change of α -zirconium grains during delayed hydride cracking of Zr–2.5%Nb pressure tube, Y.S. Kim, Yu. Perlovich, M. Isaenkova, S.S. Kim and Y.M. Cheong 297 (2001) 292
- Neutron Irradiation**
- Optical phenomena in KU-1 silica core fiber waveguides under pulsed reactor irradiation, P.V. Demenkov, O.A. Plaksin, V.A. Stepanov, P.A. Stepanov, V.M. Chernov, K.M. Golant and A.L. Tomashuk 297 (2001) 1
- Post-irradiation examination of high burnup Mg doped UO_2 in comparison with undoped UO_2 , Mg–Nb doped UO_2 and Ti doped UO_2 , T. Fujino, T. Shiratori, N. Sato, K. Fukuda, K. Yamada and H. Serizawa 297 (2001) 176
- Nuclear microprobe analysis of ^7Li profile induced in HfB_2 by a neutron irradiation, D. Simeone, X. Deschanel, D. Gosset, J.P. Bonal and E. Berthoumieux 297 (2001) 244
- Nickel, Nickel Alloys and Compounds**
- Diffusion reactions in titanium/Inconel-600 system, R.V. Patil, G.B. Kale and P.S. Gawde 297 (2001) 153
- Niobium, Niobium Alloys and Compounds**
- Coarsening-densification transition temperature in sintering of uranium dioxide, P. Balakrishna, B. Narasimha Murty, K.P. Chakraborty, R.N. Jayaraj and C. Ganguly 297 (2001) 35
- Permeation**
- Tritium permeation behavior implanted into pure tungsten and its isotope effect, H. Nakamura, T. Hayashi, T. Kakuta, T. Suzuki and M. Nishi 297 (2001) 285
- Phase Equilibria** (*includes Constitution, Phase Stability, Phase Instability*)
- An estimate of the high temperature, metal rich phase boundary of plutonium sesquioxide, R.I. Sheldon 297 (2001) 358
- Phase Transformation** (*includes Evaporation, Sublimation*)
- Diffusion reactions in titanium/Inconel-600 system, R.V. Patil, G.B. Kale and P.S. Gawde 297 (2001) 153
- Effect of a trivalent dopant, Gd^{3+} , on the oxidation of uranium dioxide, J.-G. Kim, Y.-K. Ha, S.-D. Park, K.-Y. Jee and W.-H. Kim 297 (2001) 327
- Physical Properties** (*not listed elsewhere*)
- Optical phenomena in KU-1 silica core fiber waveguides under pulsed reactor irradiation, P.V. Demenkov, O.A. Plaksin, V.A. Stepanov, P.A. Stepanov, V.M. Chernov, K.M. Golant and A.L. Tomashuk 297 (2001) 1
- What's new on plutonium up to 4000 K?, M. Boivineau 297 (2001) 97
- On the mechanism for dose rate dependence of stationary luminescence of F and F^+ centres excited by electron beam in α - Al_2O_3 , V.I. Meshakin and T. Tanabe 297 (2001) 149
- Plutonium, Plutonium Alloys and Compounds**
- Application of normal pulse voltammetry to on-line monitoring of actinide concentrations in molten salt electrolyte, M. Iizuka, T. Inoue, O. Shirai, T. Iwai and Y. Arai 297 (2001) 43
- What's new on plutonium up to 4000 K?, M. Boivineau 297 (2001) 97
- Densification behaviour and sintering kinetics of PuO_2 pellets, T.R.G. Kutty, K.B. Khan, P.V. Hegde, A.K. Sengupta, S. Majumdar and D.S.C. Purushotham 297 (2001) 120
- EXAFS/XANES studies of plutonium-loaded sodalite/glass waste forms, M.K. Richmann, D.T. Reed, A.J. Kropf, S.B. Aase and M.A. Lewis 297 (2001) 303
- An estimate of the high temperature, metal rich phase boundary of plutonium sesquioxide, R.I. Sheldon 297 (2001) 358
- Powder Processes and Products**
- Densification behaviour and sintering kinetics of PuO_2 pellets, T.R.G. Kutty, K.B. Khan, P.V. Hegde, A.K. Sengupta, S. Majumdar and D.S.C. Purushotham 297 (2001) 120
- Factors governing microstructure development of Cr_2O_3 -doped UO_2 during sintering, L. Bourgeois, Ph. Dehaut, C. Lemaignan and A. Hammou 297 (2001) 313

Precipitates and Precipitation

Effects of carbide precipitation on the strength and Charpy impact properties of low carbon Mn–Ni–Mo bainitic steels, Y.-R. Im, Y.J. Oh, B.-J. Lee, J.H. Hong and H.-C. Lee 297 (2001) 138

Precipitation of reoriented hydrides and textural change of α -zirconium grains during delayed hydride cracking of Zr–2.5%Nb pressure tube, Y.S. Kim, Yu. Perlovich, M. Isaenkova, S.S. Kim and Y.M. Cheong 297 (2001) 292

Pressure Vessels

Effects of carbide precipitation on the strength and Charpy impact properties of low carbon Mn–Ni–Mo bainitic steels, Y.-R. Im, Y.J. Oh, B.-J. Lee, J.H. Hong and H.-C. Lee 297 (2001) 138

Comparative analysis of pressure vessel integrity for various LOCA conditions, Ü. Çolak and O. Özdere 297 (2001) 271

Processing

Coarsening-densification transition temperature in sintering of uranium dioxide, P. Balakrishna, B. Narasimha Murty, K.P. Chakraborty, R.N. Jayaraj and C. Ganguly 297 (2001) 35

Application of normal pulse voltammetry to on-line monitoring of actinide concentrations in molten salt electrolyte, M. Iizuka, T. Inoue, O. Shirai, T. Iwai and Y. Arai 297 (2001) 43

Diffusion reactions in titanium/Inconel-600 system, R.V. Patil, G.B. Kale and P.S. Gawde 297 (2001) 153

Diffusion reaction between Zr–2.5 wt% Nb alloy and martensitic grade 403 stainless steel, K. Bhanumurthy, R.V. Patil, D. Srivatsava, P.S. Gawde and G.B. Kale 297 (2001) 220

Radiation Effects: Atomic Defects

The study of microstructural defects and mechanical properties in proton-irradiated Zr–1.0%Nb–1.0%Sn–0.1%Fe, P. Mukherjee, P.M.G. Nambissan, P. Barat, P. Sen, S.K. Bandyopadhyay, J.K. Chakravarty, S.L. Wadekar, S. Banerjee, S.K. Chattopadhyay, S.K. Chatterjee and M.K. Mitra 297 (2001) 341

Radiation Effects: Extended Defects, Microstructures

Radiation damage and nanocrystal formation in uranium–niobium titanates, J. Lian, S.X. Wang, L.M. Wang and R.C. Ewing 297 (2001) 89

Microstructure evolution in austenitic Fe–Cr–Ni alloys irradiated with protons: comparison with neutron-irradiated microstructures, J. Gan and G.S. Was 297 (2001) 161

Effect of point defect interaction with bubble surface on the nucleation and growth of gas bubbles, R.E. Voskoboinikov and A.E. Volkov 297 (2001) 262

Radiation Effects: Mechanical Properties

Microstructure evolution in austenitic Fe–Cr–Ni alloys irradiated with protons: comparison with neutron-irradiated microstructures, J. Gan and G.S. Was 297 (2001) 161

Irradiation effects on toughness behaviour and microstructure of VVER-type pressure vessel steels, J. Böhmert, H.-W. Viehrig and A. Ulbricht 297 (2001) 251

The study of microstructural defects and mechanical properties in proton-irradiated Zr–1.0%Nb–1.0%Sn–0.1%Fe, P. Mukherjee, P.M.G. Nambissan, P. Barat, P. Sen, S.K. Bandyopadhyay, J.K. Chakravarty, S.L. Wadekar, S. Banerjee, S.K. Chattopadhyay, S.K. Chatterjee and M.K. Mitra 297 (2001) 341

Radiation Effects: Physical Properties

Temperature effects on the radiation stability and ion exchange capacity of smectites, B.X. Gu, L.M. Wang, L.D. Minc and R.C. Ewing 297 (2001) 345

Rare Earths

Thermodynamics of the UO₂ solid solution with magnesium and europium oxides, T. Fujino, N. Sato, K. Yamada, S. Nakama, K. Fukuda, H. Serizawa and T. Shiratori 297 (2001) 332

Safety of Nuclear Reactors

Post-irradiation examination of high burnup Mg doped UO₂ in comparison with undoped UO₂, Mg–Nb doped UO₂ and Ti doped UO₂, T. Fujino, T. Shiratori, N. Sato, K. Fukuda, K. Yamada and H. Serizawa 297 (2001) 176

Comparative analysis of pressure vessel integrity for various LOCA conditions, Ü. Çolak and O. Özdere 297 (2001) 271

Silicon and Silicon Compounds

Optical phenomena in KU-1 silica core fiber waveguides under pulsed reactor irradiation, P.V. Demenkov, O.A. Plaksin, V.A. Stepanov, P.A. Stepanov, V.M. Chernov, K.M. Golant and A.L. Tomashuk 297 (2001) 1

An ab initio study on formation and desorption reactions of H₂O molecules from surface hydroxyl groups in silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs and Y. Katano 297 (2001) 69

Steels, Austenitic

Microstructure evolution in austenitic Fe–Cr–Ni alloys irradiated with protons:

- comparison with neutron-irradiated microstructures, J. Gan and G.S. Was 297 (2001) 161
- Steels, Ferritic**
- Effects of carbide precipitation on the strength and Charpy impact properties of low carbon Mn–Ni–Mo bainitic steels, Y.-R. Im, Y.J. Oh, B.-J. Lee, J.H. Hong and H.-C. Lee 297 (2001) 138
- A kinetic model for corrosion and precipitation in non-isothermal LBE flow loop, B.X. He, N. Li and M. Mineev 297 (2001) 214
- Diffusion reaction between Zr–2.5 wt% Nb alloy and martensitic grade 403 stainless steel, K. Bhanumurthy, R.V. Patil, D. Srivatsava, P.S. Gawde and G.B. Kale 297 (2001) 220
- Irradiation effects on toughness behaviour and microstructure of VVER-type pressure vessel steels, J. Böhmert, H.-W. Viehriig and A. Ulbricht 297 (2001) 251
- Comparative analysis of pressure vessel integrity for various LOCA conditions, Ü. Çolak and O. Özdere 297 (2001) 271
- Response of reduced activation ferritic steels to high-fluence ion-irradiation, H. Tanigawa, M. Ando, Y. Katoh, T. Hirose, H. Sakasegawa, S. Jitsukawa, A. Kohyama and T. Iwai 297 (2001) 279
- Surface Effects**
- Surface inventory of tritium on Li_2TiO_3 , T. Kawagoe, M. Nishikawa, A. Baba and S. Beloglazov 297 (2001) 27
- An ab initio study on formation and desorption reactions of H_2O molecules from surface hydroxyl groups in silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs and Y. Katano 297 (2001) 69
- Swelling**
- Microstructure evolution in austenitic Fe–Cr–Ni alloys irradiated with protons: comparison with neutron-irradiated microstructures, J. Gan and G.S. Was 297 (2001) 161
- Effect of point defect interaction with bubble surface on the nucleation and growth of gas bubbles, R.E. Voskoboinikov and A.E. Volkov 297 (2001) 262
- Theory and Modelling**
- An ab initio study on formation and desorption reactions of H_2O molecules from surface hydroxyl groups in silicates, T. Nakazawa, K. Yokoyama, V. Grismanovs and Y. Katano 297 (2001) 69
- A kinetic model for corrosion and precipitation in non-isothermal LBE flow loop, B.X. He, N. Li and M. Mineev 297 (2001) 214
- Effect of point defect interaction with bubble surface on the nucleation and growth of gas bubbles, R.E. Voskoboinikov and A.E. Volkov 297 (2001) 262
- Thermodynamic Properties**
- Thermodynamics of the UO_2 solid solution with magnesium and europium oxides, T. Fujino, N. Sato, K. Yamada, S. Nakama, K. Fukuda, H. Serizawa and T. Shiratori 297 (2001) 332
- Thermophysical Properties**
- What's new on plutonium up to 4000 K?, M. Boivineau 297 (2001) 97
- Post-irradiation examination of high burnup Mg doped UO_2 in comparison with undoped UO_2 , Mg–Nb doped UO_2 and Ti doped UO_2 , T. Fujino, T. Shiratori, N. Sato, K. Fukuda, K. Yamada and H. Serizawa 297 (2001) 176
- Thorium, Thorium Alloys and Compounds**
- Influence of the precursor and the calcination temperature on the dissolution of thorium dioxide, S. Hubert, K. Barthelet, B. Fourest, G. Lagarde, N. Dacheux and N. Baglan 297 (2001) 206
- Titanium, Titanium Alloys and Compounds**
- Diffusion reactions in titanium/Inconel-600 system, R.V. Patil, G.B. Kale and P.S. Gawde 297 (2001) 153
- Tritium and Tritides**
- Surface inventory of tritium on Li_2TiO_3 , T. Kawagoe, M. Nishikawa, A. Baba and S. Beloglazov 297 (2001) 27
- Tritium permeation behavior implanted into pure tungsten and its isotope effect, H. Nakamura, T. Hayashi, T. Kakuta, T. Suzuki and M. Nishi 297 (2001) 285
- Tungsten, Tungsten Alloys and Compounds**
- Tritium permeation behavior implanted into pure tungsten and its isotope effect, H. Nakamura, T. Hayashi, T. Kakuta, T. Suzuki and M. Nishi 297 (2001) 285
- Uranium, Uranium Alloys and Compounds**
- Coarsening-densification transition temperature in sintering of uranium dioxide, P. Balakrishna, B. Narasimha Murthy, K.P. Chakraborty, R.N. Jayaraj and C. Ganguly 297 (2001) 35
- Application of normal pulse voltammetry to on-line monitoring of actinide concentrations in molten salt electrolyte, M. Iizuka, T. Inoue, O. Shirai, T. Iwai and Y. Arai 297 (2001) 43
- Post-irradiation examination of high burnup Mg doped UO_2 in comparison with undoped UO_2 , Mg–Nb doped UO_2 and Ti doped UO_2 , T. Fujino, T. Shiratori,

- N. Sato, K. Fukuda, K. Yamada and H. Serizawa 297 (2001) 176
- Factors governing microstructure development of Cr₂O₃-doped UO₂ during sintering, L. Bourgeois, Ph. Dehaut, C. Lemaignan and A. Hammou 297 (2001) 313
- Effect of a trivalent dopant, Gd³⁺, on the oxidation of uranium dioxide, J.-G. Kim, Y.-K. Ha, S.-D. Park, K.-Y. Jee and W.-H. Kim 297 (2001) 327
- Thermodynamics of the UO₂ solid solution with magnesium and europium oxides, T. Fujino, N. Sato, K. Yamada, S. Nakama, K. Fukuda, H. Serizawa and T. Shiratori 297 (2001) 332
- Vitrification**
- Vitrification of liquid waste from nuclear power plants, J. Sheng, K. Choi and M.-J. Song 297 (2001) 7
- Wastes**
- Vitrification of liquid waste from nuclear power plants, J. Sheng, K. Choi and M.-J. Song 297 (2001) 7
- 90-19/U HLW-glass leaching mechanism in underground water, J. Sheng and S. Luo 297 (2001) 57
- Preliminary results on the leaching process of phosphate ceramics, potential hosts for actinide immobilization, L. Bois, M.J. Guittet, F. Carrot, P. Trocellier and M. Gautier-Soyer 297 (2001) 129
- Determination of dissolution rates of spent fuel in carbonate solutions under different redox conditions with a flow-through experiment, S. Röllin, K. Spahiu and U.-B. Eklund 297 (2001) 231
- EXAFS/XANES studies of plutonium-loaded sodalite/glass waste forms, M.K. Richmann, D.T. Reed, A.J. Kropf, S.B. Aase and M.A. Lewis 297 (2001) 303
- Temperature effects on the radiation stability and ion exchange capacity of smectites, B.X. Gu, L.M. Wang, L.D. Minc and R.C. Ewing 297 (2001) 345
- Zirconium, Zirconium Alloys and Compounds**
- Texture dependent plastic behavior of Zr 702 at large strain, O. Castelnau, H. Francillette, B. Bacroix and R.A. Lebensohn 297 (2001) 14
- Hydrogen uptake and corrosion behavior of Zr-2.5Nb pressure tubes in Wolsong Unit 1, K.-N. Choo and Y.-S. Kim 297 (2001) 52
- Oxide layers of Zr-1% Nb under PWR primary circuit conditions, G. Nagy, Z. Kerner, G. Battistig, A. Pintér-Csordás, J. Balogh and T. Pajkossy 297 (2001) 62
- Characterisation of pre-transition oxides on Zircalloys, M. Oskarsson, E. Ahlberg, U. Andersson and K. Pettersson 297 (2001) 77
- Measurement of hydriding susceptibility of Zircaloy cladding by the tube-burst technique at high pressure and high temperature, H.S. Hong and D.R. Olander 297 (2001) 107
- Investigation on the oxidation characteristics of copper-added modified Zircaloy-4 alloys in pressurized water at 360°C, H.S. Hong, J.S. Moon, S.J. Kim and K.S. Lee 297 (2001) 113
- Preliminary results on the leaching process of phosphate ceramics, potential hosts for actinide immobilization, L. Bois, M.J. Guittet, F. Carrot, P. Trocellier and M. Gautier-Soyer 297 (2001) 129
- Diffusion reaction between Zr-2.5 wt% Nb alloy and martensitic grade 403 stainless steel, K. Bhanumurthy, R.V. Patil, D. Srivatsava, P.S. Gawde and G.B. Kale 297 (2001) 220
- Precipitation of reoriented hydrides and textural change of α -zirconium grains during delayed hydride cracking of Zr-2.5%Nb pressure tube, Y.S. Kim, Yu. Perlovich, M. Isaenkova, S.S. Kim and Y.M. Cheong 297 (2001) 292
- The study of microstructural defects and mechanical properties in proton-irradiated Zr-1.0%Nb-1.0%Sn-0.1%Fe, P. Mukherjee, P.M.G. Nambissan, P. Barat, P. Sen, S.K. Bandyopadhyay, J.K. Chakravarty, S.L. Wadekar, S. Banerjee, S.K. Chattopadhyay, S.K. Chatterjee and M.K. Mitra 297 (2001) 341