



Subject index

Absorber

- Dysprosium titanate as an absorber material for control rods, V.D. Risovany, E.E. Varlashova and D.N. Suslov 281 (2000) 84

Amorphization and Amorphous Materials

- Simulated alteration tests on non-radioactive SON 68 nuclear glass in the presence of corrosion products and environmental materials, P. Jollivet, Y. Minet, M. Nicolas and E. Vernaz 281 (2000) 231

Analytical Instruments and Methods

- Quantitative analysis of deuterium in a-C:D layers, a Round Robin experiment, R. Behrisch, M. Mayer, W. Jacob, W. Assmann, G. Dollinger, A. Bergmaier, U. Kreissig, M. Friedrich, G.Y. Sun, D. Hildebrandt, M. Akbi, W. Schneider, D. Schleußner, W. Knapp and C. Edelmann 281 (2000) 42

- Ultra-high vacuum investigation of the surface chemistry of zirconium, Y.C. Kang, M.M. Milovancev, D.A. Clauss, M.A. Lange and R.D. Ramsier 281 (2000) 57

- Performance of a Li_2TiO_3 pebble-bed in the CRITIC-III irradiation, R.A. Verrall, J.M. Miller and P. Gierszewski 281 (2000) 71

Beryllium, Beryllium Alloys and Compounds

- Dynamic behaviour of the systems Be–C, Be–W and C–W, W. Eckstein 281 (2000) 195

Breeding Materials

- Performance of a Li_2TiO_3 pebble-bed in the CRITIC-III irradiation, R.A. Verrall, J.M. Miller and P. Gierszewski 281 (2000) 71

- Production behavior of irradiation defects in lithium silicates and silica under ion beam irradiation, K. Moritani, S. Tanaka and H. Moriyama 281 (2000) 106

Carbon

- Quantitative analysis of deuterium in a-C:D layers, a Round Robin experiment, R. Behrisch, M. Mayer, W. Jacob, W. Assmann, G. Dollinger, A. Bergmaier, U. Kreissig, M. Friedrich, G.Y. Sun, D. Hildebrandt, M. Akbi, W. Schneider, D. Schleußner, W. Knapp and C. Edelmann 281 (2000) 42

- Multi-layer coating of silicon carbide and pyrolytic carbon on UO_2 pellets by a combustion reaction, B.G. Kim, Y. Choi, J.W. Lee, Y.W. Lee, D.S. Sohn and G.M. Kim 281 (2000) 163

- Dynamic behaviour of the systems Be–C, Be–W and C–W, W. Eckstein 281 (2000) 195

Ceramics (not listed elsewhere)

- Beta radiation effects in ^{137}Cs -substituted pollucite, N.J. Hess, F.J. Espinosa, S.D. Conradson and W.J. Weber 281 (2000) 22

- Production behavior of irradiation defects in lithium silicates and silica under ion beam irradiation, K. Moritani, S. Tanaka and H. Moriyama 281 (2000) 106

Chemical Reactions (includes Electrochemical and Thermochemical Reactions)

- Ultra-high vacuum investigation of the surface chemistry of zirconium, Y.C. Kang, M.M. Milovancev, D.A. Clauss, M.A. Lange and R.D. Ramsier 281 (2000) 57

- Kinetics of thermal decomposition of $\text{Th}(\text{C}_2\text{O}_4)_2 \cdot 6\text{H}_2\text{O}$, K. Joseph, R. Sridharan and T. Gnanasekaran 281 (2000) 129

- Multi-layer coating of silicon carbide and pyrolytic carbon on UO_2 pellets by a combustion reaction, B.G. Kim, Y. Choi, J.W. Lee, Y.W. Lee, D.S. Sohn and G.M. Kim 281 (2000) 163

- Effect of AlOOH on the microstructure of UO_2 pellets, H.-s. Yoo, S.-y. Lee, S.-j. Lee and K.-w. Song 281 (2000) 191

- Effect of silicon impurities and heat treatment on uranium hydriding rates, A.L. DeMint and J.H. Leckey 281 (2000) 208
- Simulated alteration tests on non-radioactive SON 68 nuclear glass in the presence of corrosion products and environmental materials, P. Jollivet, Y. Minet, M. Nicolas and E. Vernaz 281 (2000) 231
- Preparation and characterisation of Pu-pyrochlore: $[\text{La}_{1-x}\text{Pu}_x]_2 \text{Zr}_2\text{O}_7$ ($x = 0-1$), N.K. Kulkarni, S. Sampath and V. Venugopal 281 (2000) 248
- Cladding Materials**
- Ultra-high vacuum investigation of the surface chemistry of zirconium, Y.C. Kang, M.M. Milovancev, D.A. Clauss, M.A. Lange and R.D. Ramsier 281 (2000) 57
- Investigation on the zirconia phase transition under irradiation, D. Simeone, J.L. Bechade, D. Gosset, A. Chevarier, P. Daniel, H. Pillaire and G. Baldinozzi 281 (2000) 171
- Coatings and Coated Particles**
- Multi-layer coating of silicon carbide and pyrolytic carbon on UO_2 pellets by a combustion reaction, B.G. Kim, Y. Choi, J.W. Lee, Y.W. Lee, D.S. Sohn and G.M. Kim 281 (2000) 163
- Compatibility and Corrosion (include Stress Corrosion Cracking)**
- Passivation of uranium towards air corrosion by N_2^+ and C^+ ion implantation, R. Arkush, M.H. Mintz and N. Shamir 281 (2000) 182
- Corrosion behaviour of low activation steels in flowing Pb-17Li, H. Glasbrenner, J. Konys and Z. Voß 281 (2000) 225
- Copper, Copper Alloys and Compounds**
- Heavy-ion cascade effects on radiation-induced segregation kinetics in Cu-1%Au alloys, M.J. Giacobbe, N.Q. Lam, L.E. Rehn, P.M. Baldo, L. Funk and J.F. Stubbins 281 (2000) 213
- Crystallographic Properties**
- Preparation and characterisation of Pu-pyrochlore: $[\text{La}_{1-x}\text{Pu}_x]_2 \text{Zr}_2\text{O}_7$ ($x = 0-1$), N.K. Kulkarni, S. Sampath and V. Venugopal 281 (2000) 248
- Deformation**
- A method to study deformation mechanisms for irradiated steels using a disk-bend test, E.H. Lee, T.S. Byun, J.D. Hunn, N. Hashimoto and K. Farrell 281 (2000) 65
- Dislocations**
- A method to study deformation mechanisms for irradiated steels using a disk-bend test, E.H. Lee, T.S. Byun, J.D. Hunn, N. Hashimoto and K. Farrell 281 (2000) 65
- Electron Irradiation**
- Beta radiation effects in ^{137}Cs -substituted pollucite, N.J. Hess, F.J. Espinosa, S.D. Conradson and W.J. Weber 281 (2000) 22
- Electron Microscopy**
- Orientation of γ to α transformation in Xe-implanted austenitic 304 stainless steel, G. Xie, M. Song, K. Mitsuishi and K. Furuya 281 (2000) 80
- Fission Products**
- Beta radiation effects in ^{137}Cs -substituted pollucite, N.J. Hess, F.J. Espinosa, S.D. Conradson and W.J. Weber 281 (2000) 22
- Lattice parameter changes associated with the rim-structure formation in high burn-up UO_2 fuels by micro X-ray diffraction, J. Spino and D. Papaioannou 281 (2000) 146
- Fuels and Fuel Elements**
- Dysprosium titanate as an absorber material for control rods, V.D. Risovany, E.E. Varlashova and D.N. Suslov 281 (2000) 84
- Passivation of uranium towards air corrosion by N_2^+ and C^+ ion implantation, R. Arkush, M.H. Mintz and N. Shamir 281 (2000) 182
- Effect of AlOOH on the microstructure of UO_2 pellets, H.-s. Yoo, S.-y. Lee, S.-j. Lee and K.-w. Song 281 (2000) 191
- Gases (excludes Hydrogen, Helium and Tritium) in Materials**
- Pressure building during the early stages of gas production in a radioactive waste repository, B. Bonin, M. Colin and A. Dutfoy 281 (2000) 1
- Grain Boundaries**
- Effect of AlOOH on the microstructure of UO_2 pellets, H.-s. Yoo, S.-y. Lee, S.-j. Lee and K.-w. Song 281 (2000) 191
- Hydrogen and Hydrides (includes Deuterium and Deuterides)**
- Quantitative analysis of deuterium in a-C:D layers, a Round Robin experiment, R. Behrisch, M. Mayer,

- W. Jacob, W. Assmann, G. Dolinger, A. Bergmaier, U. Kreissig, M. Friedrich, G.Y. Sun, D. Hildebrandt, M. Akbi, W. Schneider, D. Schleußner, W. Knapp and C. Edelmann 281 (2000) 42
- Effect of silicon impurities and heat treatment on uranium hydriding rates, A.L. DeMint and J.H. Leckey 281 (2000) 208
- Impurities**
- Effect of silicon impurities and heat treatment on uranium hydriding rates, A.L. DeMint and J.H. Leckey 281 (2000) 208
- Ion Irradiation**
- A method to study deformation mechanisms for irradiated steels using a disk-bend test, E.H. Lee, T.S. Byun, J.D. Hunn, N. Hashimoto and K. Farrell 281 (2000) 65
- Orientation of γ to α transformation in Xe-implanted austenitic 304 stainless steel, G. Xie, M. Song, K. Mitsuishi and K. Furuya 281 (2000) 80
- Production behavior of irradiation defects in lithium silicates and silica under ion beam irradiation, K. Moritani, S. Tanaka and H. Moriyama 281 (2000) 106
- Passivation of uranium towards air corrosion by N_2^+ and C^+ ion implantation, R. Arkush, M.H. Mintz and N. Shamir 281 (2000) 182
- Heavy-ion cascade effects on radiation-induced segregation kinetics in Cu-1%Au alloys, M.J. Giacobbe, N.Q. Lam, L.E. Rehn, P.M. Baldo, L. Funk and J.F. Stubbins 281 (2000) 213
- Kinetics**
- Kinetic and thermodynamic study of the thorium phosphate-diphosphate dissolution, A.C. Thomas, N. Dacheux, P. Le Coustumer, V. Brandel and M. Genet 281 (2000) 91
- Passivation of uranium towards air corrosion by N_2^+ and C^+ ion implantation, R. Arkush, M.H. Mintz and N. Shamir 281 (2000) 182
- Lithium**
- Corrosion behaviour of low activation steels in flowing Pb-17Li, H. Glasbrenner, J. Konyas and Z. Voß 281 (2000) 225
- Metals, Alloys and Compounds (not listed elsewhere)**
- Measurement of backward sputtering yields induced by fast neutrons, B. Ye, Y. Kasugai, Y. Ikeda, Y. Fan, J. Du, X. Zhou and R. Han 281 (2000) 112
- Microstructure and Texture (excludes by Irradiation)**
- A method for determining an effective porosity correction factor for thermal conductivity in fast reactor uranium-plutonium oxide fuel pellets, M. Inoue, K. Abe and I. Sato 281 (2000) 117
- Preparation and characterization of PuN pellets containing ZrN and TiN, Y. Arai and K. Nakajima 281 (2000) 244
- Neutron Irradiation**
- Performance of a Li_2TiO_3 pebble-bed in the CRITIC-III irradiation, R.A. Verrall, J.M. Miller and P. Gierszewski 281 (2000) 71
- Measurement of backward sputtering yields induced by fast neutrons, B. Ye, Y. Kasugai, Y. Ikeda, Y. Fan, J. Du, X. Zhou and R. Han 281 (2000) 112
- Permeation**
- Tritium diffusive transport parameters and trapping effects in the reduced activating martensitic steel OPTIFER-IVb, G.A. Esteban, A. Perujo, K. Douglas and L.A. Sedano 281 (2000) 34
- Phase Transformation (includes Evaporation, Sublimation)**
- Orientation of γ to α transformation in Xe-implanted austenitic 304 stainless steel, G. Xie, M. Song, K. Mitsuishi and K. Furuya 281 (2000) 80
- Investigation on the zirconia phase transition under irradiation, D. Simeone, J.L. Bechade, D. Gosset, A. Chevarier, P. Daniel, H. Pillaire and G. Baldinozzi 281 (2000) 171
- Physical Properties (not listed elsewhere)**
- Production behavior of irradiation defects in lithium silicates and silica under ion beam irradiation, K. Moritani, S. Tanaka and H. Moriyama 281 (2000) 106
- Discrete-variational Dirac-Slater calculations on the valence band XPS for α -uranium metal, M. Kurihara, M. Hirata, R. Sekine, J. Onoe and H. Nakamatsu 281 (2000) 140
- Plutonium, Plutonium Alloys and Compounds**
- A method for determining an effective porosity correction factor for thermal conductivity in fast reactor uranium-plutonium oxide fuel pellets, M. Inoue, K. Abe and I. Sato 281 (2000) 117
- Preparation and characterization of PuN pellets containing ZrN and TiN, Y. Arai and K. Nakajima 281 (2000) 244
- Preparation and characterisation of Pu-pyrochlore: $[La_{1-x}Pu_x]_2Zr_2O_7$

- ($x = 0-1$), N.K. Kulkarni, S. Sampath and V. Venugopal 281 (2000) 248
- Pores (includes Porosity, Fabrication Pores)**
 A method for determining an effective porosity correction factor for thermal conductivity in fast reactor uranium-plutonium oxide fuel pellets, M. Inoue, K. Abe and I. Sato 281 (2000) 117
 Effect of AlOOH on the microstructure of UO₂ pellets, H.-s. Yoo, S.-y. Lee, S.-j. Lee and K.-w. Song 281 (2000) 191
- Powder Processes and Products**
 Preparation and characterization of PuN pellets containing ZrN and TiN, Y. Arai and K. Nakajima 281 (2000) 244
- Processing**
 Effect of silicon impurities and heat treatment on uranium hydriding rates, A.L. DeMint and J.H. Leckey 281 (2000) 208
- Radiation Effects: Atomic Defects**
 Heavy-ion cascade effects on radiation-induced segregation kinetics in Cu-1%Au alloys, M.J. Giacobbe, N.Q. Lam, L.E. Rehn, P.M. Baldo, L. Funk and J.F. Stubbins 281 (2000) 213
- Radiation Effects: Extended Defects, Microstructures**
 Lattice parameter changes associated with the rim-structure formation in high burn-up UO₂ fuels by micro X-ray diffraction, J. Spino and D. Papaioannou 281 (2000) 146
- Radiation Effects: Mechanical Properties**
 A method to study deformation mechanisms for irradiated steels using a disk-bend test, E.H. Lee, T.S. Byun, J.D. Hunn, N. Hashimoto and K. Farrell 281 (2000) 65
- Segregation**
 Heavy-ion cascade effects on radiation-induced segregation kinetics in Cu-1%Au alloys, M.J. Giacobbe, N.Q. Lam, L.E. Rehn, P.M. Baldo, L. Funk and J.F. Stubbins 281 (2000) 213
- Silicon and Silicon Compounds**
 Production behavior of irradiation defects in lithium silicates and silica under ion beam irradiation, K. Moritani, S. Tanaka and H. Moriyama 281 (2000) 106
 Multi-layer coating of silicon carbide and pyrolytic carbon on UO₂ pellets by a combustion reaction, B.G. Kim, Y. Choi, J.W. Lee, Y.W. Lee, D.S. Sohn and G.M. Kim 281 (2000) 163
- Steels, Austenitic**
 A method to study deformation mechanisms for irradiated steels using a disk-bend test, E.H. Lee, T.S. Byun, J.D. Hunn, N. Hashimoto and K. Farrell 281 (2000) 65
 Orientation of γ to α transformation in Xe-implanted austenitic 304 stainless steel, G. Xie, M. Song, K. Mitsuishi and K. Furuya 281 (2000) 80
- Steels, Ferritic**
 Tritium diffusive transport parameters and trapping effects in the reduced activating martensitic steel OPTIFER-IVb, G.A. Esteban, A. Perujo, K. Douglas and L.A. Sedano 281 (2000) 34
 Corrosion behaviour of low activation steels in flowing Pb-17Li, H. Glasbrenner, J. Konys and Z. Voß 281 (2000) 225
- Surface Effects**
 Ultra-high vacuum investigation of the surface chemistry of zirconium, Y.C. Kang, M.M. Milovancev, D.A. Clauss, M.A. Lange and R.D. Ramsier 281 (2000) 57
 Measurement of backward sputtering yields induced by fast neutrons, B. Ye, Y. Kasugai, Y. Ikeda, Y. Fan, J. Du, X. Zhou and R. Han 281 (2000) 112
 Dynamic behaviour of the systems Be-C, Be-W and C-W, W. Eckstein 281 (2000) 195
- Theory and Modelling**
 Discrete-variational Dirac-Slater calculations on the valence band XPS for α -uranium metal, M. Kurihara, M. Hirata, R. Sekine, J. Onoe and H. Nakamatsu 281 (2000) 140
 Heavy-ion cascade effects on radiation-induced segregation kinetics in Cu-1%Au alloys, M.J. Giacobbe, N.Q. Lam, L.E. Rehn, P.M. Baldo, L. Funk and J.F. Stubbins 281 (2000) 213
- Thermodynamic Properties**
 Kinetic and thermodynamic study of the thorium phosphate-diphosphate dissolution, A.C. Thomas, N. Dacheux, P. Le Coustumer, V. Brandel and M. Genet 281 (2000) 91
 Henrian ideality of iron in liquid uranium solvent at high temperatures, D. Das, A.S. Kerkar, S.R. Bharadwaj, S. Mukherjee and S.R. Dharwadkar 281 (2000) 203
- Thermophysical Properties**
 Studies on thermal expansion and XPS of urania-thoria solid solutions,

- S. Anthonysamy, G. Panneerselvam, S. Bera, S.V. Narasimhan and P.R. Vasudeva Rao 281 (2000) 15
- A method for determining an effective porosity correction factor for thermal conductivity in fast reactor uranium-plutonium oxide fuel pellets, M. Inoue, K. Abe and I. Sato 281 (2000) 117
- Thorium, Thorium Alloys and Compounds**
- Studies on thermal expansion and XPS of urania-thoria solid solutions, S. Anthonysamy, G. Panneerselvam, S. Bera, S.V. Narasimhan and P.R. Vasudeva Rao 281 (2000) 15
- Kinetic and thermodynamic study of the thorium phosphate-diphosphate dissolution, A.C. Thomas, N. Dacheux, P. Le Coustumer, V. Brandel and M. Genet 281 (2000) 91
- Kinetics of thermal decomposition of $\text{Th}(\text{C}_2\text{O}_4)_2 \cdot 6\text{H}_2\text{O}$, K. Joseph, R. Sridharan and T. Gnanasekaran 281 (2000) 129
- Titanium, Titanium Alloys and Compounds**
- Preparation and characterization of PuN pellets containing ZrN and TiN, Y. Arai and K. Nakajima 281 (2000) 244
- Tritium and Tritides**
- Tritium diffusive transport parameters and trapping effects in the reduced activating martensitic steel OPTIFER-IVb, G.A. Esteban, A. Perujo, K. Douglas and L.A. Sedano 281 (2000) 34
- Performance of a Li_2TiO_3 pebble-bed in the CRITIC-III irradiation, R.A. Verrall, J.M. Miller and P. Gierszewski 281 (2000) 71
- Tungsten, Tungsten Alloys and Compounds**
- Dynamic behaviour of the systems Be-C, Be-W and C-W, W. Eckstein 281 (2000) 195
- Uranium, Uranium Alloys and Compounds**
- Studies on thermal expansion and XPS of urania-thoria solid solutions, S. Anthonysamy, G. Panneerselvam, S. Bera, S.V. Narasimhan and P.R. Vasudeva Rao 281 (2000) 15
- A method for determining an effective porosity correction factor for thermal conductivity in fast reactor uranium-plutonium oxide fuel pellets, M. Inoue, K. Abe and I. Sato 281 (2000) 117
- Discrete-variational Dirac-Slater calculations on the valence band XPS for α -uranium metal, M. Kurihara, M. Hirata, R. Sekine, J. Onoe and H. Nakamatsu 281 (2000) 140
- Lattice parameter changes associated with the rim-structure formation in high burn-up UO_2 fuels by micro X-ray diffraction, J. Spino and D. Papaioannou 281 (2000) 146
- Multi-layer coating of silicon carbide and pyrolytic carbon on UO_2 pellets by a combustion reaction, B.G. Kim, Y. Choi, J.W. Lee, Y.W. Lee, D.S. Sohn and G.M. Kim 281 (2000) 163
- Passivation of uranium towards air corrosion by N_2^+ and C^+ ion implantation, R. Arkush, M.H. Mintz and N. Shamir 281 (2000) 182
- Effect of AlOOH on the microstructure of UO_2 pellets, H.-s. Yoo, S.-y. Lee, S.-j. Lee and K.-w. Song 281 (2000) 191
- Henrian ideality of iron in liquid uranium solvent at high temperatures, D. Das, A.S. Kerkar, S.R. Bharadwaj, S. Mukherjee and S.R. Dharwadkar 281 (2000) 203
- Effect of silicon impurities and heat treatment on uranium hydriding rates, A.L. DeMint and J.H. Leckey 281 (2000) 208
- Wastes**
- Pressure building during the early stages of gas production in a radioactive waste repository, B. Bonin, M. Colin and A. Dufloy 281 (2000) 1
- Beta radiation effects in ^{137}Cs -substituted pollucite, N.J. Hess, F.J. Espinosa, S.D. Conradson and W.J. Weber 281 (2000) 22
- Simulated alteration tests on non-radioactive SON 68 nuclear glass in the presence of corrosion products and environmental materials, P. Jollivet, Y. Minet, M. Nicolas and E. Vernaz 281 (2000) 231
- Preparation and characterisation of Pu-pyrochlore: $[\text{La}_{1-x}\text{Pu}_x]_2\text{Zr}_2\text{O}_7$ ($x = 0-1$), N.K. Kulkarni, S. Sampath and V. Venugopal 281 (2000) 248
- Zirconium, Zirconium Alloys and Compounds**
- Ultra-high vacuum investigation of the surface chemistry of zirconium, Y.C. Kang, M.M. Milovancev, D.A. Clauss, M.A. Lange and R.D. Ramsier 281 (2000) 57
- Investigation on the zirconia phase transition under irradiation, D. Simeone, J.L. Bechade, D. Gosset, A. Chevarier, P. Daniel, H. Pilliaire and G. Baldinozzi 281 (2000) 171
- Preparation and characterization of PuN pellets containing ZrN and TiN, Y. Arai and K. Nakajima 281 (2000) 244