

Subject index

Analytical Instruments and Methods (not listed elsewhere)

- Surface co-segregation of minor alloying elements in Ti-modified stainless steel studied by Auger electron spectroscopy, P. Gopalan, R. Rajaraman and G. Amarendra 349 (2006) 178

Breeding Materials for Fusion

- A literature review of reactions and kinetics of lithium hydride hydrolysis, C. Haertling, R.J. Hanrahan Jr. and R. Smith 349 (2006) 195

Carbon

- Deuterium depth profiling in JT-60U W-shaped divertor tiles by nuclear reaction analysis, T. Hayashi, K. Ochiai, K. Masaki, Y. Gotoh, C. Kutsukake, T. Arai, T. Nishitani and N. Miya 349 (2006) 6
- Thermo-oxidation to remove re-deposited layers and to release trapped hydrogen isotopes in HT-7 superconducting tokamak, J.S. Hu, J.G. Li and X.M. Wang 349 (2006) 160
- Experimental study on the oxidation of nuclear graphite and development of an oxidation model, E.S. Kim and H.C. NO 349 (2006) 182
- Tritium release from bulk of carbon-based tiles used in JT-60U, T. Takeishi, K. Katayama, M. Nishikawa, K. Masaki and N. Miya 349 (2006) 327

Ceramics (not listed elsewhere)

- Thermal conductivity and acid dissolution behavior of MgO–ZrO₂ ceramics for use in LWR inert matrix fuel, P.G. Medvedev, M.J. Lambregts and M.K. Meyer 349 (2006) 167
- Deuterium retention in sintered boron carbide exposed to a deuterium plasma, V.Kh. Alimov, D.A. Komarov, J. Roth, M. Mayer and S. Lindig 349 (2006) 282
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291

- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Chemical Reactions (includes Electrochemical and Thermochemical Reactions)

- Thermo-oxidation to remove re-deposited layers and to release trapped hydrogen isotopes in HT-7 superconducting tokamak, J.S. Hu, J.G. Li and X.M. Wang 349 (2006) 160
- Experimental study on the oxidation of nuclear graphite and development of an oxidation model, E.S. Kim and H.C. NO 349 (2006) 182
- A literature review of reactions and kinetics of lithium hydride hydrolysis, C. Haertling, R.J. Hanrahan Jr. and R. Smith 349 (2006) 195

Compatibility and Corrosion (includes Stress Corrosion Cracking)

- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Crystallographic Properties

- The texture dependence of K_{IH} in Zr–2.5%Nb pressure tube materials, S. Kim 349 (2006) 83
- Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251
- Thermodynamics of Fe–Cu alloys as described by a classic potential, A. Caro, M. Caro, E.M. Lopasso, P.E.A. Turchi and D. Farkas 349 (2006) 317

Defects and Defect Structures (*excludes by Irradiation*)

- Displacement cascades in Fe–Cr: A molecular dynamics study, D.A. Terentyev, L. Malerba, R. Chakarova, K. Nordlund, P. Olsson, M. Rieth and J. Wallenius 349 (2006) 119

Diffusion

- Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235

Dislocations

- Derivation of analytical expressions for the network dislocation density, change in lattice parameter, and for the recrystallized grain size in nuclear fuels, J. Rest 349 (2006) 150
- Surface co-segregation of minor alloying elements in Ti-modified stainless steel studied by Auger electron spectroscopy, P. Gopalan, R. Rajaraman and G. Amarendra 349 (2006) 178

Electron Microscopy

- Transmission electron microscopy examination of oxide layers formed on Zr alloys, A. Yilmazbayhan, E. Breval, A.T. Motta and R.J. Comstock 349 (2006) 265

Fracture and Fracture Toughness

- The texture dependence of K_{IH} in Zr–2.5%Nb pressure tube materials, S. Kim 349 (2006) 83

Fuels and Fuel Elements

- Thermodynamics of the O–U system. IV – Critical assessment of chemical potentials in the U–UO_{2.01} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 17
- Thermodynamics of the O–U system: III – Critical assessment of phase diagram data in the U–UO_{2+x} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 57
- Derivation of analytical expressions for the network dislocation density, change in lattice parameter, and for the recrystallized grain size in nuclear fuels, J. Rest 349 (2006) 150
- Thermal conductivity and acid dissolution behavior of MgO–ZrO₂ ceramics for use in LWR inert matrix fuel, P.G. Medvedev, M.J. Lambregts and M.K. Meyer 349 (2006) 167

Grain Boundaries

- Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235

Hydrogen and Hydrides (*includes Deuterium and Deuterides*)

- Deuterium depth profiling in JT-60U W-shaped divertor tiles by nuclear reaction analysis, T. Hayashi, K. Ochiai, K. Masaki, Y. Gotoh, C. Kutsukake, T. Arai, T. Nishitani and N. Miya 349 (2006) 6
- The texture dependence of K_{IH} in Zr–2.5%Nb pressure tube materials, S. Kim 349 (2006) 83
- Thermo-oxidation to remove re-deposited layers and to release trapped hydrogen isotopes in HT-7 superconducting tokamak, J.S. Hu, J.G. Li and X.M. Wang 349 (2006) 160
- A literature review of reactions and kinetics of lithium hydride hydrolysis, C. Haertling, R.J. Hanrahan Jr. and R. Smith 349 (2006) 195
- Deuterium retention in sintered boron carbide exposed to a deuterium plasma, V.Kh. Alimov, D.A. Komarov, J. Roth, M. Mayer and S. Lindig 349 (2006) 282

Iron, Iron alloys and Compounds (*excludes Steels*)

- Thermodynamics of Fe–Cu alloys as described by a classic potential, A. Caro, M. Caro, E.M. Lopasso, P.E.A. Turchi and D. Farkas 349 (2006) 317

Kinetics

- Experimental study on the oxidation of nuclear graphite and development of an oxidation model, E.S. Kim and H.C. NO 349 (2006) 182
- A literature review of reactions and kinetics of lithium hydride hydrolysis, C. Haertling, R.J. Hanrahan Jr. and R. Smith 349 (2006) 195

Liquid Metals

- Diffusivity, activity and solubility of oxygen in liquid lead and lead–bismuth eutectic alloy by electrochemical methods, R. Ganesan, T. Gnanasekaran and R.S. Srinivasa 349 (2006) 133

Mathematical and Computational Methods

- Thermodynamics of Fe–Cu alloys as described by a classic potential, A. Caro, M. Caro, E.M. Lopasso, P.E.A. Turchi and D. Farkas 349 (2006) 317

Microstructure and Texture (*excludes by Irradiation*)

- Archaeologic analogues: Microstructural changes by natural ageing in carbon steels, E.B. Muñoz, J.C. Fernández, J.G. Arasanz, R.A. Peces, A.J. Criado, C. Dietz, J.A. Martínez and A.J. Criado Portal 349 (2006) 1
- Transmission electron microscopy examination of oxide layers formed on Zr alloys, A. Yilmazbayhan, E. Breval, A.T. Motta and R.J. Comstock 349 (2006) 265

Moderator and Reflector Materials

A literature review of reactions and kinetics of lithium hydride hydrolysis, C. Haertling, R.J. Hanrahan Jr. and R. Smith 349 (2006) 195

Neutron Irradiation

Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251

Oxides

Thermodynamics of the O-U system. IV – Critical assessment of chemical potentials in the U-UO_{2.01} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 17

Thermodynamics of the O-U system: III – Critical assessment of phase diagram data in the U-UO_{2+x} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 57

Transmission electron microscopy examination of oxide layers formed on Zr alloys, A. Yilmazbayhan, E. Brevail, A.T. Motta and R.J. Comstock 349 (2006) 265

Phase Equilibria (includes Constitution, Phase Stability, Phase Instability)

Thermodynamics of the O-U system. IV – Critical assessment of chemical potentials in the U-UO_{2.01} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 17

Thermodynamics of the O-U system: III – Critical assessment of phase diagram data in the U-UO_{2+x} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 57

Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235

Plasma-Materials Interaction

Deuterium depth profiling in JT-60U W-shaped divertor tiles by nuclear reaction analysis, T. Hayashi, K. Ochiai, K. Masaki, Y. Gotoh, C. Kutsukake, T. Arai, T. Nishitani and N. Miya 349 (2006) 6

Thermo-oxidation to remove re-deposited layers and to release trapped hydrogen isotopes in HT-7 superconducting tokamak, J.S. Hu, J.G. Li and X.M. Wang 349 (2006) 160

Tritium release from bulk of carbon-based tiles used in JT-60U, T. Takeishi, K. Katayama, M. Nishikawa, K. Masaki and N. Miya 349 (2006) 327

Plutonium, Plutonium Alloys and Compounds

Thermal conductivity and acid dissolution behavior of MgO-ZrO₂ ceramics for

use in LWR inert matrix fuel, P.G. Medvedev, M.J. Lambregts and M.K. Meyer 349 (2006) 167

Polymers

Tritium release from bulk of carbon-based tiles used in JT-60U, T. Takeishi, K. Katayama, M. Nishikawa, K. Masaki and N. Miya 349 (2006) 327

Precipitates and Precipitation

Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235

Thermodynamics of Fe-Cu alloys as described by a classic potential, A. Caro, M. Caro, E.M. Lopasso, P.E.A. Turchi and D. Farkas 349 (2006) 317

Radiation Effects: Extended Defects, Microstructures

Derivation of analytical expressions for the network dislocation density, change in lattice parameter, and for the recrystallized grain size in nuclear fuels, J. Rest 349 (2006) 150

Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235

Radiation Effects: Mechanical Properties

Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251

Redeposition

Deuterium depth profiling in JT-60U W-shaped divertor tiles by nuclear reaction analysis, T. Hayashi, K. Ochiai, K. Masaki, Y. Gotoh, C. Kutsukake, T. Arai, T. Nishitani and N. Miya 349 (2006) 6

Behavior of thorium-uranium (IV) phosphate-diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291

Behavior of thorium-uranium (IV) phosphate-diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Safety of Nuclear Reactors and Components

Experimental study on the oxidation of nuclear graphite and development of an oxidation model, E.S. Kim and H.C. NO 349 (2006) 182

Segregation

Surface co-segregation of minor alloying elements in Ti-modified stainless steel studied by Auger electron spectroscopy,

- P. Gopalan, R. Rajaraman and G. Amarendra
Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 178
- Steels, Austenitic**
Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251
- Steels, Austenitic, Low C/N**
Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251
- Steels, Austenitic, Stabilized**
Surface co-segregation of minor alloying elements in Ti-modified stainless steel studied by Auger electron spectroscopy, P. Gopalan, R. Rajaraman and G. Amarendra 349 (2006) 178
- Steels, Ferritic/Martensitic**
Archaeologic analogues: Microstructural changes by natural ageing in carbon steels, E.B. Muñoz, J.C. Fernández, J.G. Arasanz, R.A. Peces, A.J. Criado, C. Dietz, J.A. Martínez and A.J. Criado Portal 349 (2006) 1
- Steels, Ferritic/Martensitic, Low Activation**
Displacement cascades in Fe–Cr: A molecular dynamics study, D.A. Terentyev, L. Malerba, R. Chakarova, K. Nordlund, P. Olsson, M. Rieth and J. Wallenius 349 (2006) 119
- Surface Effects**
Thermo-oxidation to remove re-deposited layers and to release trapped hydrogen isotopes in HT-7 superconducting tokamak, J.S. Hu, J.G. Li and X.M. Wang 349 (2006) 160
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304
- Theory and Modelling**
Derivation of analytical expressions for the network dislocation density, change in lattice parameter, and for the re-crystallized grain size in nuclear fuels, J. Rest 349 (2006) 150
- Experimental study on the oxidation of nuclear graphite and development of an oxidation model, E.S. Kim and H.C. NO 349 (2006) 182
- Kinetic Monte Carlo simulations of radiation induced segregation and precipitation, F. Soisson 349 (2006) 235
- Thermodynamics of Fe–Cu alloys as described by a classic potential, A. Caro, M. Caro, E.M. Lopasso, P.E.A. Turchi and D. Farkas 349 (2006) 317
- Thermodynamic Properties**
Thermodynamics of the O–U system. IV – Critical assessment of chemical potentials in the U–UO_{2,01} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 17
- Thermodynamics of the O–U system: III – Critical assessment of phase diagram data in the U–UO_{2+x} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 57
- Diffusivity, activity and solubility of oxygen in liquid lead and lead–bismuth eutectic alloy by electrochemical methods, R. Ganesan, T. Gnanasekaran and R.S. Srinivasa 349 (2006) 133
- Thermomechanical Treatment**
Surface co-segregation of minor alloying elements in Ti-modified stainless steel studied by Auger electron spectroscopy, P. Gopalan, R. Rajaraman and G. Amarendra 349 (2006) 178
- Thermophysical Properties**
Diffusivity, activity and solubility of oxygen in liquid lead and lead–bismuth eutectic alloy by electrochemical methods, R. Ganesan, T. Gnanasekaran and R.S. Srinivasa 349 (2006) 133
- Thermal conductivity and acid dissolution behavior of MgO–ZrO₂ ceramics for use in LWR inert matrix fuel, P.G. Medvedev, M.J. Lambregts and M.K. Meyer 349 (2006) 167
- Thorium, Thorium Alloys and Compounds**
Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Tritium and Tritides

- Deuterium depth profiling in JT-60U W-shaped divertor tiles by nuclear reaction analysis, T. Hayashi, K. Ochiai, K. Masaki, Y. Gotoh, C. Kutsukake, T. Arai, T. Nishitani and N. Miya 349 (2006) 6
- Tritium release from bulk of carbon-based tiles used in JT-60U, T. Takeishi, K. Katayama, M. Nishikawa, K. Masaki and N. Miya 349 (2006) 327

Uranium Oxides and Compounds

- Thermodynamics of the O–U system. IV – Critical assessment of chemical potentials in the U–UO_{2.01} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 17
- Thermodynamics of the O–U system: III – Critical assessment of phase diagram data in the U–UO_{2+x} composition range, M. Baichi, C. Chatillon, G. Ducros and K. Froment 349 (2006) 57
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Vanadium, Vanadium Alloys and Compounds

- Characteristics of microscopic strain localization in irradiated 316 stainless steels and pure vanadium, T.S. Byun, N. Hashimoto, K. Farrell and E.H. Lee 349 (2006) 251

Waste: Behavior in Storage

- Modelling of bituminized radioactive waste leaching. Part I: Constitutive equations, J. Sercombe, B. Gwinner, C. Tiffreau, B. Simondi-Teisseire and F. Adenot 349 (2006) 96

- Modelling of bituminized radioactive waste leaching. Part II: Experimental validation, B. Gwinner, J. Sercombe, C. Tiffreau, B. Simondi-Teisseire, I. Felines and F. Adenot 349 (2006) 107

Waste Materials

- Modelling of bituminized radioactive waste leaching. Part I: Constitutive equations, J. Sercombe, B. Gwinner, C. Tiffreau, B. Simondi-Teisseire and F. Adenot 349 (2006) 96
- Modelling of bituminized radioactive waste leaching. Part II: Experimental validation, B. Gwinner, J. Sercombe, C. Tiffreau, B. Simondi-Teisseire, I. Felines and F. Adenot 349 (2006) 107
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part I – Kinetic study, N. Dacheux, N. Clavier and J. Ritt 349 (2006) 291
- Behavior of thorium–uranium (IV) phosphate–diphosphate sintered samples during leaching tests. Part II. Saturation processes, N. Clavier, E. du Fou de Kerdaniel, N. Dacheux, P. Le Coustumer, R. Drot, J. Ravaux and E. Simoni 349 (2006) 304

Zirconium Hydrides and Compounds

- Transmission electron microscopy examination of oxide layers formed on Zr alloys, A. Yilmazbayhan, E. Breval, A.T. Motta and R.J. Comstock 349 (2006) 265

Zirconium, Zirconium Alloys

- The texture dependence of K_{IH} in Zr–2.5%Nb pressure tube materials, S. Kim 349 (2006) 83
- Transmission electron microscopy examination of oxide layers formed on Zr alloys, A. Yilmazbayhan, E. Breval, A.T. Motta and R.J. Comstock 349 (2006) 265