

Subject index

Atom Probe/Field Ion Microscopy

- APT characterization of high nickel RPV steels, M.K. Miller, M.A. Sokolov, R.K. Nanstad and K.F. Russell 351 (2006) 187
- The effects of irradiation, annealing and reirradiation on RPV steels, M.K. Miller, R.K. Nanstad, M.A. Sokolov and K.F. Russell 351 (2006) 216
- Characterization of precipitates in MA/ODS ferritic alloys, M.K. Miller, K.F. Russell and D.T. Hoelzer 351 (2006) 261

Cavities (includes Voids, Holes)

- Void nucleation with embryo injection, K.C. Russell and B.K. Kim 351 (2006) 100

Cladding Materials

- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241

Defects and Defect Structures (excludes by Irradiation)

- Solute interaction with point defects in α Fe during thermal ageing: A combined ab initio and atomic kinetic Monte Carlo approach, E. Vincent, C.S. Becquart and C. Domain 351 (2006) 88

Deformation

- Microstructure of neutron-irradiated iron before and after tensile deformation, S.J. Zinkle and B.N. Singh 351 (2006) 269
- Microstructural analysis of deformation in neutron-irradiated fcc materials, N. Hashimoto, T.S. Byun and K. Farrell 351 (2006) 295
- Strain-rate effects on microstructural deformation in irradiated 316 SS, J.I. Cole, H. Tsai, T.R. Allen, T. Yoshitake, N. Akasaka, I. Yamagata and Y. Nakamura 351 (2006) 316

Diffusion

- Kinetic Monte Carlo simulations applied to irradiated materials: The effect of cascade damage in defect nucleation and growth, M.J. Caturla, N. Soneda, T. Diaz de la Rubia and M. Fluss 351 (2006) 78

Dislocations

- Destruction processes of large stacking fault tetrahedra induced by direct interaction with gliding dislocations, Y. Matsukawa, Yu.N. Osetsky, R.E. Stoller and S.J. Zinkle 351 (2006) 285

Electron Microscopy

- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Microstructural development in advanced ferritic-martensitic steel HCM12A, T.R. Allen, L. Tan, J. Gan, G. Gupta, G.S. Was, E.A. Kenik, S. Shutthanandan and S. Thevuthasan 351 (2006) 174
- Irradiated microstructure of alloy 800H, J. Gan, J.I. Cole, T.R. Allen, S. Shutthanandan and S. Thevuthasan 351 (2006) 223
- Microstructure of neutron-irradiated iron before and after tensile deformation, S.J. Zinkle and B.N. Singh 351 (2006) 269
- Destruction processes of large stacking fault tetrahedra induced by direct interaction with gliding dislocations, Y. Matsukawa, Yu.N. Osetsky, R.E. Stoller and S.J. Zinkle 351 (2006) 285
- Microstructural analysis of deformation in neutron-irradiated fcc materials, N. Hashimoto, T.S. Byun and K. Farrell 351 (2006) 295
- Strain-rate effects on microstructural deformation in irradiated 316 SS, J.I. Cole, H. Tsai, T.R. Allen, T. Yoshitake, N. Akasaka, I. Yamagata and Y. Nakamura 351 (2006) 316

Fast Reactor Materials

- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241

Fusion Reactor Materials

- Molecular dynamics simulation of primary irradiation defect formation in Fe–10%Cr alloy, J.-H. Shim, H.-J. Lee and B.D. Wirth 351 (2006) 56
- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241
- Microstructural development under irradiation in European ODS ferritic/martensitic steels, R. Schäublin, A. Ramar, N. Baluc, V. de Castro, M.A. Monge, T. Leguey, N. Schmid and C. Bonjour 351 (2006) 247
- Characterization of precipitates in MA/ODS ferritic alloys, M.K. Miller, K.F. Russell and D.T. Hoelzer 351 (2006) 261

Helium

- Calculation of helium defect clustering properties in iron using a multi-scale approach, T. Seletskaya, Yu.N. Osetsky, R.E. Stoller and G.M. Stocks 351 (2006) 109
- Helium–self-interstitial atom interaction in α -iron, L. Ventelon, B. Wirth and C. Domain 351 (2006) 119
- Diffusion of He interstitials in grain boundaries in α -Fe, F. Gao, H. Heinisch and R.J. Kurtz 351 (2006) 133
- Interaction of helium atoms with edge dislocations in α -Fe, H.L. Heinisch, F. Gao, R.J. Kurtz and E.A. Le 351 (2006) 141

Interfaces

- Atomic scale modelling of the primary damage state of irradiated fcc and bcc nanocrystalline metals, M. Samaras, P.M. Derlet, H.V. Swygenhoven and M. Victoria 351 (2006) 47

Ion Irradiation

- Positron annihilation spectroscopy of proton irradiated single crystal BCC iron, M.A. Okuniewski, D.P. Wells, F.A. Selim, S.A. Maloy, M.R. James, J.F. Stubbins, C.S. Deo, S.G. Srivilliputhur and M.I. Baskes 351 (2006) 149
- Effect of hafnium on radiation-induced inter-granular segregation in ferritic steel, Z. Lu, R.G. Faulkner, N. Sakaguchi, H. Kinoshita, H. Takahashi and P.E.J. Flewitt 351 (2006) 155
- Microstructural development in cubic silicon carbide during irradiation at elevated temperatures, Y. Katoh, N. Hashimoto, S. Kondo, L.L. Snead and A. Kohyama 351 (2006) 228

Iron, Iron alloys and Compounds (excludes Steels)

- Ab initio modelling of defect properties with substitutional and interstitial elements in steels and Zr alloys, C. Domain 351 (2006) 1
- Two-band second moment model for transition metals and alloys, G.J. Ackland 351 (2006) 20
- Molecular dynamics simulation of displacement cascades in α -Fe: A critical review, L. Malerba 351 (2006) 28
- Molecular dynamics simulation of primary irradiation defect formation in Fe–10%Cr alloy, J.-H. Shim, H.-J. Lee and B.D. Wirth 351 (2006) 56
- Effect of the interatomic potential on the features of displacement cascades in α -Fe: A molecular dynamics study, D. Terentyev, C. Lagerstedt, P. Olsson, K. Nordlund, J. Wallenius, C.S. Becquart and L. Malerba 351 (2006) 65
- Solute interaction with point defects in α Fe during thermal ageing: A combined ab initio and atomic kinetic Monte Carlo approach, E. Vincent, C.S. Becquart and C. Domain 351 (2006) 88
- Positron annihilation spectroscopy of proton irradiated single crystal BCC iron, M.A. Okuniewski, D.P. Wells, F.A. Selim, S.A. Maloy, M.R. James, J.F. Stubbins, C.S. Deo, S.G. Srivilliputhur and M.I. Baskes 351 (2006) 149
- Coincidence Doppler broadening spectroscopy in Fe, Fe–C and Fe–Cu after neutron irradiation, K. Verheyen, M. Jardin and A. Almazouzi 351 (2006) 209
- Microstructure of neutron-irradiated iron before and after tensile deformation, S.J. Zinkle and B.N. Singh 351 (2006) 269
- Mathematical and Computational Methods**
- Two-band second moment model for transition metals and alloys, G.J. Ackland 351 (2006) 20
- Molecular dynamics simulation of displacement cascades in α -Fe: A critical review, L. Malerba 351 (2006) 28
- Effect of displacement cascade structure and defect mobility on the growth of point defect clusters under irradiation, C.S. Becquart, A. Souidi, C. Domain, M. Hou, L. Malerba and R.E. Stoller 351 (2006) 39
- Atomic scale modelling of the primary damage state of irradiated fcc and bcc nanocrystalline metals, M. Samaras, P.M. Derlet, H.V. Swygenhoven and M. Victoria 351 (2006) 47
- Molecular dynamics simulation of primary irradiation defect formation in Fe–10%Cr alloy, J.-H. Shim, H.-J. Lee and B.D. Wirth 351 (2006) 56
- Effect of the interatomic potential on the features of displacement cascades in

- α -Fe: A molecular dynamics study, D. Terentyev, C. Lagerstedt, P. Olsson, K. Nordlund, J. Wallenius, C.S. Becquart and L. Malerba 351 (2006) 65
- Kinetic Monte Carlo simulations applied to irradiated materials: The effect of cascade damage in defect nucleation and growth, M.J. Caturla, N. Soneda, T. Diaz de la Rubia and M. Fluss 351 (2006) 78
- Solute interaction with point defects in α Fe during thermal ageing: A combined ab initio and atomic kinetic Monte Carlo approach, E. Vincent, C.S. Becquart and C. Domain 351 (2006) 88
- Calculation of helium defect clustering properties in iron using a multi-scale approach, T. Seletskaja, Yu.N. Osetsky, R.E. Stoller and G.M. Stocks 351 (2006) 109
- Helium-self-interstitial atom interaction in α -iron, L. Ventelon, B. Wirth and C. Domain 351 (2006) 119
- Diffusion of He interstitials in grain boundaries in α -Fe, F. Gao, H. Heinisch and R.J. Kurtz 351 (2006) 133
- Interaction of helium atoms with edge dislocations in α -Fe, H.L. Heinisch, F. Gao, R.J. Kurtz and E.A. Le 351 (2006) 141
- Mechanical Properties** (*not listed elsewhere*)
- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241
- Metals, Alloys and Compounds** (*not listed elsewhere*)
- Two-band second moment model for transition metals and alloys, G.J. Ackland 351 (2006) 20
- Microstructural analysis of deformation in neutron-irradiated fcc materials, N. Hashimoto, T.S. Byun and K. Farrell 351 (2006) 295
- Neutron Irradiation**
- Atomic scale modelling of the primary damage state of irradiated fcc and bcc nanocrystalline metals, M. Samaras, P.M. Derlet, H.V. Swygenhoven and M. Victoria 351 (2006) 47
- Coincidence Doppler broadening spectroscopy in Fe, Fe-C and Fe-Cu after neutron irradiation, K. Verheyen, M. Jardin and A. Almazouzi 351 (2006) 209
- Microstructural development in cubic silicon carbide during irradiation at elevated temperatures, Y. Katoh, N. Hashimoto, S. Kondo, L.L. Snead and A. Kohyama 351 (2006) 228
- Microstructure of neutron-irradiated iron before and after tensile deformation, S.J. Zinkle and B.N. Singh 351 (2006) 269
- Microstructural analysis of deformation in neutron-irradiated fcc materials, N. Hashimoto, T.S. Byun and K. Farrell 351 (2006) 295
- Neutron Scattering**
- Positron annihilation spectroscopy and small angle neutron scattering characterization of nanostructural features in high-nickel model reactor pressure vessel steels, S.C. Glade, B.D. Wirth, G.R. Odette and P. Asoka-Kumar 351 (2006) 197
- Positron Annihilation**
- Positron annihilation spectroscopy of proton irradiated single crystal BCC iron, M.A. Okuniewski, D.P. Wells, F.A. Selim, S.A. Maloy, M.R. James, J.F. Stubbins, C.S. Deo, S.G. Srivilliputhur and M.I. Baskes 351 (2006) 149
- Positron annihilation spectroscopy and small angle neutron scattering characterization of nanostructural features in high-nickel model reactor pressure vessel steels, S.C. Glade, B.D. Wirth, G.R. Odette and P. Asoka-Kumar 351 (2006) 197
- Coincidence Doppler broadening spectroscopy in Fe, Fe-C and Fe-Cu after neutron irradiation, K. Verheyen, M. Jardin and A. Almazouzi 351 (2006) 209
- Powder Processes and Products**
- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241
- Characterization of precipitates in MA/ODS ferritic alloys, M.K. Miller, K.F. Russell and D.T. Hoelzer 351 (2006) 261
- Precipitates and Precipitation**
- Positron annihilation spectroscopy and small angle neutron scattering characterization of nanostructural features in high-nickel model reactor pressure vessel steels, S.C. Glade, B.D. Wirth, G.R. Odette and P. Asoka-Kumar 351 (2006) 197
- Characterization of precipitates in MA/ODS ferritic alloys, M.K. Miller, K.F. Russell and D.T. Hoelzer 351 (2006) 261
- Pressure Vessel Materials**
- APT characterization of high nickel RPV steels, M.K. Miller, M.A. Sokolov, R.K. Nanstad and K.F. Russell 351 (2006) 187
- Positron annihilation spectroscopy and small angle neutron scattering char-

- acterization of nanostructural features in high-nickel model reactor pressure vessel steels, S.C. Glade, B.D. Wirth, G.R. Odette and P. Asoka-Kumar 351 (2006) 197
- The effects of irradiation, annealing and reirradiation on RPV steels, M.K. Miller, R.K. Nanstad, M.A. Sokolov and K.F. Russell 351 (2006) 216
- Proton Irradiation**
- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Radiation Effects: Atomic Defects**
- Ab initio modelling of defect properties with substitutional and interstitial elements in steels and Zr alloys, C. Domain 351 (2006) 1
- Molecular dynamics simulation of displacement cascades in α -Fe: A critical review, L. Malerba 351 (2006) 28
- Effect of displacement cascade structure and defect mobility on the growth of point defect clusters under irradiation, C.S. Becquart, A. Souidi, C. Domain, M. Hou, L. Malerba and R.E. Stoller 351 (2006) 39
- Atomic scale modelling of the primary damage state of irradiated fcc and bcc nanocrystalline metals, M. Samaras, P.M. Derlet, H.V. Swygenhoven and M. Victoria 351 (2006) 47
- Molecular dynamics simulation of primary irradiation defect formation in Fe-10%Cr alloy, J.-H. Shim, H.-J. Lee and B.D. Wirth 351 (2006) 56
- Effect of the interatomic potential on the features of displacement cascades in α -Fe: A molecular dynamics study, D. Terentyev, C. Lagerstedt, P. Olsson, K. Nordlund, J. Wallenius, C.S. Becquart and L. Malerba 351 (2006) 65
- Kinetic Monte Carlo simulations applied to irradiated materials: The effect of cascade damage in defect nucleation and growth, M.J. Caturla, N. Soneda, T. Diaz de la Rubia and M. Fluss 351 (2006) 78
- Calculation of helium defect clustering properties in iron using a multi-scale approach, T. Seletskaya, Yu.N. Osetsky, R.E. Stoller and G.M. Stocks 351 (2006) 109
- Helium-self-interstitial atom interaction in α -iron, L. Ventelon, B. Wirth and C. Domain 351 (2006) 119
- Diffusion of He interstitials in grain boundaries in α -Fe, F. Gao, H. Heinisch and R.J. Kurtz 351 (2006) 133
- Interaction of helium atoms with edge dislocations in α -Fe, H.L. Heinisch, F. Gao, R.J. Kurtz and E.A. Le 351 (2006) 141
- Coincidence Doppler broadening spectroscopy in Fe, Fe-C and Fe-Cu after neutron irradiation, K. Verheyen, M. Jardin and A. Almazouzi 351 (2006) 209
- Radiation Effects: Extended Defects, Microstructures**
- Effect of displacement cascade structure and defect mobility on the growth of point defect clusters under irradiation, C.S. Becquart, A. Souidi, C. Domain, M. Hou, L. Malerba and R.E. Stoller 351 (2006) 39
- Atomic scale modelling of the primary damage state of irradiated fcc and bcc nanocrystalline metals, M. Samaras, P.M. Derlet, H.V. Swygenhoven and M. Victoria 351 (2006) 47
- Kinetic Monte Carlo simulations applied to irradiated materials: The effect of cascade damage in defect nucleation and growth, M.J. Caturla, N. Soneda, T. Diaz de la Rubia and M. Fluss 351 (2006) 78
- Void nucleation with embryo injection, K.C. Russell and B.K. Kim 351 (2006) 100
- Positron annihilation spectroscopy of proton irradiated single crystal BCC iron, M.A. Okuniewski, D.P. Wells, F.A. Selim, S.A. Maloy, M.R. James, J.F. Stubbins, C.S. Deo, S.G. Srivilliputhur and M.I. Baskes 351 (2006) 149
- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Microstructural development in advanced ferritic-martensitic steel HCM12A, T.R. Allen, L. Tan, J. Gan, G. Gupta, G.S. Was, E.A. Kenik, S. Shutthanandan and S. Thevuthasan 351 (2006) 174
- APT characterization of high nickel RPV steels, M.K. Miller, M.A. Sokolov, R.K. Nanstad and K.F. Russell 351 (2006) 187
- Positron annihilation spectroscopy and small angle neutron scattering characterization of nanostructural features in high-nickel model reactor pressure vessel steels, S.C. Glade, B.D. Wirth, G.R. Odette and P. Asoka-Kumar 351 (2006) 197
- The effects of irradiation, annealing and reirradiation on RPV steels, M.K. Miller, R.K. Nanstad, M.A. Sokolov and K.F. Russell 351 (2006) 216
- Irradiated microstructure of alloy 800H, J. Gan, J.I. Cole, T.R. Allen, S. Shutthanandan and S. Thevuthasan 351 (2006) 223
- Microstructural development in cubic silicon carbide during irradiation at elevated temperatures, Y. Katoh, N. Hashimoto, S. Kondo, L.L. Snead and A. Kohyama 351 (2006) 228
- Microstructural development under irradiation in European ODS ferritic/martensitic steels, R. Schäublin, A. Ramar,

- N. Baluc, V. de Castro, M.A. Monge, T. Leguey, N. Schmid and C. Bonjour
Microstructure of neutron-irradiated iron before and after tensile deformation, S.J. Zinkle and B.N. Singh 351 (2006) 247
- Microstructural analysis of deformation in neutron-irradiated fcc materials, N. Hashimoto, T.S. Byun and K. Farrell
Deformation mode map of irradiated 316 stainless steel in true stress–dose space, T.S. Byun, N. Hashimoto and K. Farrell 351 (2006) 295
- Strain-rate effects on microstructural deformation in irradiated 316 SS, J.I. Cole, H. Tsai, T.R. Allen, T. Yoshitake, N. Akasaka, I. Yamagata and Y. Nakamura 351 (2006) 269
- Strain-rate effects on microstructural deformation in irradiated 316 SS, J.I. Cole, H. Tsai, T.R. Allen, T. Yoshitake, N. Akasaka, I. Yamagata and Y. Nakamura 351 (2006) 316
- Radiation Effects: Mechanical Properties**
- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Microstructural development in advanced ferritic–martensitic steel HCM12A, T.R. Allen, L. Tan, J. Gan, G. Gupta, G.S. Was, E.A. Kenik, S. Shutthanandan and S. Thevuthasan 351 (2006) 174
- Microstructural development under irradiation in European ODS ferritic/martensitic steels, R. Schäublin, A. Ramar, N. Baluc, V. de Castro, M.A. Monge, T. Leguey, N. Schmid and C. Bonjour
Deformation mode map of irradiated 316 stainless steel in true stress–dose space, T.S. Byun, N. Hashimoto and K. Farrell 351 (2006) 247
- Deformation mode map of irradiated 316 stainless steel in true stress–dose space, T.S. Byun, N. Hashimoto and K. Farrell 351 (2006) 303
- Segregation**
- Effect of hafnium on radiation-induced inter-granular segregation in ferritic steel, Z. Lu, R.G. Faulkner, N. Sakaguchi, H. Kinoshita, H. Takahashi and P.E.J. Flewitt 351 (2006) 155
- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Silicon and Silicon Compounds**
- Microstructural development in cubic silicon carbide during irradiation at elevated temperatures, Y. Katoh, N. Hashimoto, S. Kondo, L.L. Snead and A. Kohyama 351 (2006) 228
- Steels, Austenitic**
- Irradiated microstructure of alloy 800H, J. Gan, J.I. Cole, T.R. Allen, S. Shutthanandan and S. Thevuthasan 351 (2006) 223
- Strain-rate effects on microstructural deformation in irradiated 316 SS, J.I. Cole, H. Tsai, T.R. Allen, T. Yoshitake, N. Akasaka, I. Yamagata and Y. Nakamura 351 (2006) 316
- Steels, Austenitic, Low C/N**
- Deformation mode map of irradiated 316 stainless steel in true stress–dose space, T.S. Byun, N. Hashimoto and K. Farrell 351 (2006) 303
- Steels, Ferritic/Martensitic**
- Effect of hafnium on radiation-induced inter-granular segregation in ferritic steel, Z. Lu, R.G. Faulkner, N. Sakaguchi, H. Kinoshita, H. Takahashi and P.E.J. Flewitt 351 (2006) 155
- Microstructural evolution of proton irradiated T91, G. Gupta, Z. Jiao, A.N. Ham, J.T. Busby and G.S. Was 351 (2006) 162
- Microstructural development in advanced ferritic–martensitic steel HCM12A, T.R. Allen, L. Tan, J. Gan, G. Gupta, G.S. Was, E.A. Kenik, S. Shutthanandan and S. Thevuthasan 351 (2006) 174
- Nano-mesoscopic structural control in 9CrODS ferritic/martensitic steels, S. Ohtsuka, S. Ukai and M. Fujiwara 351 (2006) 241
- Microstructural development under irradiation in European ODS ferritic/martensitic steels, R. Schäublin, A. Ramar, N. Baluc, V. de Castro, M.A. Monge, T. Leguey, N. Schmid and C. Bonjour 351 (2006) 247
- Swelling: Ceramics, Other Materials**
- Microstructural development in cubic silicon carbide during irradiation at elevated temperatures, Y. Katoh, N. Hashimoto, S. Kondo, L.L. Snead and A. Kohyama 351 (2006) 228
- Swelling: Metals and Alloys**
- Void nucleation with embryo injection, K.C. Russell and B.K. Kim 351 (2006) 100
- Calculation of helium defect clustering properties in iron using a multi-scale approach, T. Seletskaya, Yu.N. Osetsky, R.E. Stoller and G.M. Stocks 351 (2006) 109
- Theory and Modelling**
- Ab initio modelling of defect properties with substitutional and interstitial elements in steels and Zr alloys, C. Domain 351 (2006) 1

- Two-band second moment model for transition metals and alloys, G.J. Ackland 351 (2006) 20
- Effect of displacement cascade structure and defect mobility on the growth of point defect clusters under irradiation, C.S. Becquart, A. Souidi, C. Domain, M. Hou, L. Malerba and R.E. Stoller 351 (2006) 39
- Void nucleation with embryo injection, K.C. Russell and B.K. Kim 351 (2006) 100
- Calculation of helium defect clustering properties in iron using a multi-scale approach, T. Seletskaya, Yu.N. Osetsky, R.E. Stoller and G.M. Stocks 351 (2006) 109
- Helium-self-interstitial atom interaction in α -iron, L. Ventelon, B. Wirth and C. Domain 351 (2006) 119
- Diffusion of He interstitials in grain boundaries in α -Fe, F. Gao, H. Heinisch and R.J. Kurtz 351 (2006) 133
- Interaction of helium atoms with edge dislocations in α -Fe, H.L. Heinisch, F. Gao, R.J. Kurtz and E.A. Le 351 (2006) 141
- Effect of hafnium on radiation-induced inter-granular segregation in ferritic steel, Z. Lu, R.G. Faulkner, N. Sakaguchi, H. Kinoshita, H. Takahashi and P.E.J. Flewitt 351 (2006) 155
- Deformation mode map of irradiated 316 stainless steel in true stress-dose space, T.S. Byun, N. Hashimoto and K. Farrell 351 (2006) 303
- Zirconium, Zirconium Alloys**
- Ab initio modelling of defect properties with substitutional and interstitial elements in steels and Zr alloys, C. Domain 351 (2006) 1