## Vacancies and carbon impurities inα- iron: Electron irr

Physical Review B 25, 762-780 DOI: 10.1103/physrevb.25.762

Citation Report

#	Article	IF	CITATIONS
1	Carbon-vacancy interaction in alpha iron: interpretation of positron annihilation results. Journal of Physics F: Metal Physics, 1982, 12, L211-L216.	1.6	34
2	Materials Research for Fusion Energy. Physica Scripta, 1982, T1, 105-107.	2.5	0
3	Trapping and surface permeation of deuterium in Heâ€implanted Fe. Journal of Applied Physics, 1982, 53, 8734-8744.	2.5	105
4	Positron annihilation studies of vacancy-type defects. Hyperfine Interactions, 1983, 15, 357-370.	0.5	18
5	Determination of the ferromagnetic vacancy-formation enthalpy in α-iron by the positron method using the carbon-vacancy pair as a probe. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 95, 121-123.	2.1	7
6	Annealing behaviour of diluteFeTi,FeCu, andFeMn alloys in the temperature range above stage III following low-temperature electron irradiation. Physica Status Solidi A, 1983, 76, 267-276.	1.7	6
7	On the interaction between a vacancy and an interstitial impurity atom in B.C.C. transition metals. Physica Status Solidi (B): Basic Research, 1983, 116, 9-16.	1.5	11
8	Vacancy formation and migration energies in strained crystals. Journal of Nuclear Materials, 1983, 114, 22-29.	2.7	9
9	Vacancies and carbon impurities in α-iron: Neutron irradiation. Journal of Nuclear Materials, 1983, 114, 250-259.	2.7	72
10	Defect spectroscopy with positrons: a general calculational method. Journal of Physics F: Metal Physics, 1983, 13, 333-346.	1.6	700
11	Muon trapping at monovacancies in iron. Physical Review B, 1983, 27, 2674-2681.	3.2	45
12	Positron annihilation on pure and carbon-dopedα-iron in thermal equilibrium. Physical Review B, 1983, 27, 5257-5269.	3.2	140
13	Vacancy recovery in irradiated niobium. Journal of Physics F: Metal Physics, 1983, 13, 1415-1427.	1.6	32
14	Void growth and vacancy migration enthalpy in alpha-iron. Radiation Effects, 1983, 77, 49-55.	0.4	12
15	The resistivity recovery of high purity and carbon doped iron following low temperature electron irradiation. Radiation Effects, 1983, 79, 87-122.	0.4	280
16	The onset temperature for void formation in extremely pure iron. Radiation Effects, 1983, 76, 43-54.	0.4	1
17	Positron Lifetime Measurement of Plastically Deformed Iron Single Crystals. Journal of the Physical Society of Japan, 1983, 52, 1098-1101.	1.6	10
18	Computational analysis of positron experiments. Journal of Physics F: Metal Physics, 1984, 14, 1299-1316.	1.6	64

		CITATION R	EPORT	
#	Article		IF	CITATIONS
19	Muon trapping at vacancies in pure and doped iron. Hyperfine Interactions, 1984, 17,	153-166.	0.5	16
20	A position study on the effect of C, Cu, Ni and Sb on the defect annealing in cold-rolled Research and Technology, 1984, 19, 627-631.	l iron. Crystal	1.3	2
21	Magnetic Investigation of the Annealing Behaviour of Some Dilute Iron–Nickel Alloy: Low-Temperature Electron Irradiation. Physica Status Solidi A, 1984, 81, 227-238.	s after	1.7	9
22	A Positron study of iron alloys. Physica Status Solidi A, 1984, 83, K93-K96.		1.7	3
23	Nitrocarburizing of low-carbon unalloyed steel. Journal of Materials Science, 1984, 19,	1099-1108.	3.7	2
24	Magnetic After-Effects in Nitrogen-Charged α-Fe Following Low-Temperature Electron Neutron-Irradiation. Physica Status Solidi A, 1985, 89, 581-594.	and	1.7	4
25	Positron studies of hydrogen-defect interactions in proton irradiated molybdenum. Ap Solids and Surfaces, 1985, 36, 81-92.	plied Physics A:	1.4	25
26	Interstitial migration in dilute FeSi and FeAu alloys. Journal of Physics F: Metal Physics, 1465-1484.	1985, 15,	1.6	34
27	Vacancy recovery and vacancy-hydrogen interaction in niobium and tantalum studied Physical Review B, 1985, 32, 4326-4331.	by positrons.	3.2	71
28	Recovery of electron irradiated $\hat{l}\pm$ -Ti single crystals-A positron annihilation study. Radia 1985, 90, 149-153.	tion Effects,	0.4	6
29	Positron annihilation method for determining dislocation densities in deformed single iron. Materials Letters, 1985, 3, 181-186.	crystals of	2.6	12
30	Positron-trapping mechanism at grain boundaries. Physical Review B, 1985, 31, 6941-6	5946.	3.2	16
31	Positron lifetime studies of shock loaded nickel. Scripta Metallurgica, 1986, 20, 1085-	1088.	1.2	4
32	Basic Defects in Metals. Modern Problems in Condensed Matter Sciences, 1986, , 3-11	5.	0.1	43
33	Dislocation studies on deformed single crystals of high-purity iron using positron annil Determination of dislocation densities. Physical Review B, 1986, 34, 823-836.	ilation:	3.2	93
34	Positron Annihilation Spectroscopy of Defects in Solid. Materials Research Society Syn Proceedings, 1986, 82, 3.	nposia	0.1	5
35	Bubble nucleation and growth in an Fe-12 at% Cr ferritic alloy under He+ implantation irradiation. Journal of Nuclear Materials, 1986, 141-143, 723-726.	and Fe+	2.7	23
36	Positron annihilation in shock loaded titanium and titanium alloy BT14. Physica Status 95, 531-536.	Solidi A, 1986,	1.7	15

		CITATION RE	PORT	
#	Article		IF	CITATIONS
37	Diffusion and vacancy properties of $\hat{I}\pm$ -Zr. Journal of Nuclear Materials, 1986, 139, 179-184	4.	2.7	67
38	Positron lifetime and Doppler studies of Co-Si alloys. Journal of Physics F: Metal Physics, 19 1725-1730.	986, 16,	1.6	18
39	Interstitial mobility in FeNi, FeCo and FeMn dilute alloys. Journal of Physics F: Metal Physics 523-541.	s, 1986, 16,	1.6	32
40	Physics with monoenergetic neutrons below 100 MeV. Radiation Effects, 1986, 95, 223-2	37.	0.4	4
41	Impurity displacement by vacancy trapping in gold-implanted iron single crystals at low do Review B, 1986, 33, 8829-8832.	se. Physical	3.2	15
42	Positron trapping rate into small vacancy clusters and light substitutional impurities. Journ Physics F: Metal Physics, 1987, 17, 2235-2248.	al of	1.6	29
43	Hydrogen interactions with defects in Fe. Philosophical Magazine A: Physics of Condensed Structure, Defects and Mechanical Properties, 1987, 55, 291-300.	Matter,	0.6	18
44	Sputtering damage in Mo(111) studied with slow positrons and computer simulations. Jou Physics F: Metal Physics, 1987, 17, 1477-1490.	Irnal of	1.6	24
45	Theoretical Aspects of Positrons in Imperfect Solids. Physica Status Solidi A, 1987, 102, 11	29.	1.7	61
46	Investigation of Thermal Equilibrium Vacancies in Metals by Positron Annihilation. Physica Solidi A, 1987, 102, 47-65.	Status	1.7	321
47	Neutron Embrittlement of Reactor Pressure Vessel Steels: A Challenge to Positron Annihila Other Methods. Physica Status Solidi A, 1987, 102, 79-90.	tion and	1.7	40
48	Nanocrystalline Metals and Semiconductors Studied by Positron Lifetime Spectroscopy. Pl Status Solidi A, 1987, 102, 119-126.	hysica	1.7	46
49	On the Systematics of Positron Lifetimes in Metals. Physica Status Solidi A, 1987, 102, 17	1-179.	1.7	99
50	Binding enthalpies of carbon-vacancy complexes in α-Fe and their compatibility with differ models. Physica Status Solidi A, 1987, 104, 343-356.	ent annealing	1.7	13
51	Positron lifetime spectroscopy in nanocrystalline iron. Physics Letters, Section A: General, and Solid State Physics, 1987, 119, 370-374.	Atomic	2.1	80
52	On the possibility of the positron annihilation method to detect vacancy clusters in shock- metals. Journal of Mechanical Working Technology, 1987, 15, 215-227.	loaded	0.1	2
53	Sputtering and ion-induced mixing of thin Fe layers on graphite. Nuclear Instruments & Me Physics Research B, 1987, 19-20, 80-84.	thods in	1.4	12
54	Correlation between positron lifetime results and magnetic behaviour upon relaxation and crystallization of an iron-based amorphous alloy. Solid State Communications, 1988, 65, 1		1.9	3

ARTICLE IF CITATIONS # Intrinsic point defects in hexagonal close-packed metals. Journal of Nuclear Materials, 1988, 159, 2.7 58 55 122-148. Carbon-vacancy interactions in B.C.C. iron. Physica Status Solidi A, 1988, 110, 421-427. 1.7 Positron-annihilation spectroscopy of native vacancies in as-grown GaAs. Physical Review B, 1988, 38, 57 3.2 139 8192-8208. Structure of nanometer-sized polycrystalline iron investigated by positron lifetime spectroscopy. 58 234 Physical Review B, 1988, 38, 9545-9554. Hydrogen Trapping in Cold Worked High-Purity Iron. Transactions of the Japan Institute of Metals, 59 0.5 0 1988, 29, 540-552. Magnetism and local order. II. Self-consistent cluster calculations. Physical Review B, 1989, 40, 399-406. 3.2 On the growth of segregated C layers on top of Fe films on pyrolytic graphite samples during 61 2.5 11 highâ€fluence D+irradiation at elevated temperature. Journal of Applied Physics, 1989, 65, 3400-3406. Stage-III recovery inî±-iron studied by means of nuclear magnetic resonance on oriented1131nuclei. 3.2 Physical Review B, 1989, 39, 2029-2040. Neutron-irradiated reactor pressure vessel steels investigated by positron annihilation. Journal of 63 2.7 35 Nuclear Materials, 1989, 161, 1-12. Vacancy clustering in electron-irradiated FeNiCr austenitic alloys. Journal of Nuclear Materials, 1989, 64 2.7 169, 73-78. Temperature effect on positron trapping in Fe59Ni25Cr16 alloy containing voids. Applied Physics A: 4 65 1.4 Solids and Surfaces, 1989, 48, 583-585. Shallow positron traps in GaAs. Physical Review B, 1989, 39, 5287-5296. 3.2 142 Positron annihilation study of dislocations produced by polishing in the surface of iron single crystals: Part I. Density prófile and removal by annealing. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 2037-2045. 68 1.4 19 Positron spectroscopy for materials characterization. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 1121-1131. 1.4 Positron spectroscopy for materials characterization. Metallurgical and Materials Transactions A -70 19 1.4 Physical Metallurgy and Materials Science, 1990, 21, 1121-1131. Investigation of neutron irradiated Fe-0.8 wt% Cu alloys by means of positron annihilation and microhardness measurements. European Physical Journal B, 1990, 79, 39-45. Phase transition in Fe films on pyrolytic graphite during D+ irradiation identified through mAqssbauer 72 1.4 2 spectroscopy. Nuclear Instruments & Methods in Physics Research B, 1990, 48, 499-503. A positron lifetime study in quenched Pb(Ag) alloys. Applied Physics A: Solids and Surfaces, 1990, 51, 1.4 141-145.

#	Article	IF	CITATIONS
77	Interstitial migration in irradiated iron and iron-based dilute alloys. I. Interstitial trapping and detrapping in FeMo, FeV and FeTi dilute alloys. Journal of Physics Condensed Matter, 1990, 2, 9269-9290.	1.8	18
78	Stage II recovery in proton-irradiated aluminium studied by positrons. Journal of Physics Condensed Matter, 1990, 2, 6623-6630.	1.8	8
79	Vacancyâ€ŧype defects in Si+â€implanted GaAs and its effects on electrical activation by rapid thermal annealing. Journal of Applied Physics, 1990, 67, 6153-6158.	2.5	34
80	Thermal vacancies and positron-lifetime measurements inFe76.3Al23.7. Physical Review B, 1990, 41, 11869-11874.	3.2	92
81	2.2.1 Special remarks. , 0, , 115-120.		6
82	References for 2.2. , 0, , 191-201.		0
83	Cr. , 0, , 122-125.		0
84	Fe., 0,, 125-134.		0
85	Study of frictional sliding and defect density in the wear of bearing steel. Wear, 1991, 147, 135-144.	3.1	0
86	The study of the high temperature superconductor Yî—,Baî—,Cuî—,O by positron annihilation lifetime spectroscopy. Physica C: Superconductivity and Its Applications, 1991, 176, 64-74.	1.2	9
87	A study of the mechanisms for the irradiation embrittlement of reactor pressure vessel steels. International Journal of Pressure Vessels and Piping, 1991, 46, 217-227.	2.6	2
88	Microstructural aspects of neutron embrittlement of reactor pressure vessel steels - A view from positron annihilation spectroscopy. Nuclear Engineering and Design, 1991, 127, 47-68.	1.7	74
89	Positron lifetime study of proton-irradiated molybdenum. Nuclear Instruments & Methods in Physics Research B, 1991, 61, 72-76.	1.4	3
90	Anomalous deuterium trapping in evaporated iron films studied by positron annihilation. Journal of Applied Physics, 1991, 70, 7349-7353.	2.5	4
91	Effect of Annealing Method on Vacancy-Type Defects in Si-Implanted GaAs Studied by a Slow Positron Beam. Japanese Journal of Applied Physics, 1992, 31, 732-736.	1.5	5
92	Depth profiles of defects in C-ion-irradiated steel determined by a least-squares fit ofSparameters from variable-energy positron annihilation. Physical Review B, 1992, 46, 14411-14418.	3.2	5
93	Defect properties of neutron-irradiatedYBa2Cu3O7superconductors probed by positron annihilation. Physical Review B, 1992, 45, 7989-7995.	3.2	9
94	Investigation of radiation defects in Fe-Cr alloy. Radiation Effects and Defects in Solids, 1992, 124, 409-415.	1.2	7

#	Article	IF	CITATIONS
95	Annealing behaviour of slip deformation in Feî—,C dilute alloy single crystals electron-irradiated at 77K. Scripta Metallurgica Et Materialia, 1992, 26, 1817-1822.	1.0	1
96	Positron annihilation lifetime measurement of cyclically deformed Fe-0.5wt%Si alloy single crystals. Scripta Metallurgica Et Materialia, 1992, 26, 557-560.	1.0	4
97	Positron annihilation study on deformation of high purity iron under different strain rate. Scripta Metallurgica Et Materialia, 1992, 27, 811-814.	1.0	1
98	Small C- and N-vacancy complexes in irradiated α-Fe. Journal of Magnetism and Magnetic Materials, 1992, 112, 395-398.	2.3	2
99	Tensile behavior and microstructure of the helium and hydrogen implanted 12% Cr-steel MANET. Journal of Nuclear Materials, 1992, 191-194, 905-909.	2.7	27
100	Intrinsic point defects and light interstitials in metals. Hyperfine Interactions, 1993, 79, 701-718.	0.5	2
101	Hamiltonian formulation for the positron trapping model: An extended treatment. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1993, 15, 969-976.	0.4	0
102	Damage structure due to displacement cascades in 14 MeV neutron-irradiated metals studied by positron lifetime and TEM techniques. Journal of Nuclear Materials, 1993, 205, 59-67.	2.7	8
103	Microstructural evolution in reactor pressure vessel steels. Journal of Nuclear Materials, 1993, 205, 162-177.	2.7	230
104	Microstructural evolution in irradiated ferritic-martensitic steels: transitions to high dose		
104	behaviour. Journal of Nuclear Materials, 1993, 206, 324-334.	2.7	49
104	behaviour. Journal of Nuclear Materials, 1993, 206, 324-334. Deuterium trapping in evaporated metal films—II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562.	2.7	49 0
	behaviour. Journal of Nuclear Materials, 1993, 206, 324-334. Deuterium trapping in evaporated metal films—II. Relationship of the trapping to microstructure. Acta		
105	behaviour. Journal of Nuclear Materials, 1993, 206, 324-334. Deuterium trapping in evaporated metal films—II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562. Positron annihilation study of electron-irradiated FeCu and FeCuC alloys. Scripta Metallurgica Et	1.8	0
105 106	<ul> <li>behaviour. Journal of Nuclear Materials, 1993, 206, 324-334.</li> <li>Deuterium trapping in evaporated metal filmsâ€"II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562.</li> <li>Positron annihilation study of electron-irradiated FeCu and FeCuC alloys. Scripta Metallurgica Et Materialia, 1993, 29, 243-248.</li> <li>A Positron Lifetime Study of Defects in Neutron-Irradiated Si. Japanese Journal of Applied Physics, 1993,</li> </ul>	1.8 1.0	0 16
105 106 107	<ul> <li>behaviour. Journal of Nuclear Materials, 1993, 206, 324-334.</li> <li>Deuterium trapping in evaporated metal filmsâ€"II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562.</li> <li>Positron annihilation study of electron-irradiated FeCu and FeCuC alloys. Scripta Metallurgica Et Materialia, 1993, 29, 243-248.</li> <li>A Positron Lifetime Study of Defects in Neutron-Irradiated Si. Japanese Journal of Applied Physics, 1993, 32, 1033-1038.</li> </ul>	1.8 1.0 1.5	0 16 11
105 106 107 108	<ul> <li>behaviour. Journal of Nuclear Materials, 1993, 206, 324-334.</li> <li>Deuterium trapping in evaporated metal filmsâ€"II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562.</li> <li>Positron annihilation study of electron-irradiated FeCu and FeCuC alloys. Scripta Metallurgica Et Materialia, 1993, 29, 243-248.</li> <li>A Positron Lifetime Study of Defects in Neutron-Irradiated Si. Japanese Journal of Applied Physics, 1993, 32, 1033-1038.</li> <li>Positron trapping at grain boundaries. Physical Review B, 1993, 48, 9235-9245.</li> <li>Postirradiation Recovery of a Reactor Pressure Vessel Steel Investigated by Positron Annihilation and</li> </ul>	1.8 1.0 1.5 3.2	0 16 11 67
105 106 107 108 109	behaviour. Journal of Nuclear Materials, 1993, 206, 324-334.         Deuterium trapping in evaporated metal films—II. Relationship of the trapping to microstructure. Acta Metallurgica Et Materialia, 1993, 41, 3557-3562.         Positron annihilation study of electron-irradiated FeCu and FeCuC alloys. Scripta Metallurgica Et Materialia, 1993, 29, 243-248.         A Positron Lifetime Study of Defects in Neutron-Irradiated Si. Japanese Journal of Applied Physics, 1993, 32, 1033-1038.         Positron trapping at grain boundaries. Physical Review B, 1993, 48, 9235-9245.         Postirradiation Recovery of a Reactor Pressure Vessel Steel Investigated by Positron Annihilation and Microhardness Measurements. Nuclear Technology, 1993, 104, 52-63.         Defect profiling of neon-implanted and laser-melted steel by positron annihilation. Surface and	1.8 1.0 1.5 3.2 1.2	0 16 11 67 24

#	Article	IF	CITATIONS
113	A positron annihilation study of TiC precipitation in plastically deformed austenitic stainless steel. Journal of Nuclear Materials, 1994, 217, 325-328.	2.7	24
114	Investigation of the recovery and annealing kinetics of deformed?-iron by magnetic measurements. European Physical Journal B, 1994, 94, 227-232.	1.5	9
115	Positron lifetime spectroscopy (POLIS) - a new method of NDT. NDT and E International, 1994, 27, 235-239.	3.7	1
116	Aging of freshly formed Fe- based martensites at low temperatures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1994, 25, 889-909.	2.2	15
117	Positron annihilation in shock loaded low-alloyed Mnî—,Si steel. Scripta Metallurgica Et Materialia, 1994, 30, 1219-1222.	1.0	0
118	Theory of positrons in solids and on solid surfaces. Reviews of Modern Physics, 1994, 66, 841-897.	45.6	961
119	Electron structure and vacancy properties and Al-substitution dependence of the positron lifetime in Y1 : 2 : 3 superconducting ceramics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 201, 70-76.	2.1	50
120	Positron annihilation characteristic and superconductivity in Al-substituted Y1:2:3 systems. Solid State Communications, 1995, 93, 501-506.	1.9	3
121	Calculations of positron lifetimes in a jog and vacancies on an edge-dislocation line in Fe. Physical Review B, 1995, 52, 879-885.	3.2	94
122	Effect of Ca-substitution for yttrium on positron lifetime and superconductivity of YBa2Cu4O8 ceramics. Materials Letters, 1995, 25, 91-96.	2.6	2
123	First-principles calculation of positron annihilation characteristics at metal vacancies. Physical Review B, 1996, 54, 15016-15024.	3.2	55
124	Thermal vacancy formation and positron–vacancy interaction in Ti3Al at high temperatures. Journal of Applied Physics, 1996, 80, 724-728.	2.5	28
125	Calculation of positron states and annihilation in solids: A density-gradient-correction scheme. Physical Review B, 1996, 53, 16201-16213.	3.2	199
126	The data treatment influence on the spectra decomposition in positron lifetime spectroscopy Part 1: On the interpretation of multi-component analysis studied by Monte Carlo simulated model spectra. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 381, 128-140.	1.6	40
127	Annealing of radiation-induced defects in vanadium and vanadium-titanium alloys. Journal of Nuclear Materials, 1996, 231, 191-198.	2.7	17
128	Positron annihilation in the hydrogenated granular superconductor of YBa2Cu3O7â^îſ. Physica C: Superconductivity and Its Applications, 1996, 270, 333-342.	1.2	6
129	Characterization of radiation-induced lattice vacancies in intermetallic compounds by means of positron-lifetime studies. Physical Review B, 1996, 54, 849-856.	3.2	78
130	Positron studies of defects in ion-implanted SiC. Physical Review B, 1996, 54, 3084-3092.	3.2	111

#	Article	IF	CITATIONS
131	Positron annihilation in (X = Ge, Si, Ti) structures. Journal of Physics Condensed Matter, 1996, 8, 1301-1306.	1.8	2
132	On the effect of impurities on resistivity recovery, short-range ordering, and defect migration in electron-irradiated concentrated Fe - Cr alloys. Journal of Physics Condensed Matter, 1997, 9, 4385-4402.	1.8	29
133	Defect spectroscopy in diamond, a new model for positron trapping in insulators. Applied Surface Science, 1997, 116, 203-210.	6.1	3
134	Two-component density-functional calculations for positrons trapped by defects in solids. Applied Surface Science, 1997, 116, 293-299.	6.1	1
135	The Role of Cr Atoms on the Annealing Kinetics of Deformed Cr 25%-Type Steel Alloy. Physica Status Solidi A, 1997, 162, 537-545.	1.7	0
136	Lattice Vacancies in High-Purity α-Iron. Physica Status Solidi A, 1998, 167, 289-311.	1.7	61
137	Effect of lattice structure on the positron annihilation with inner shell electrons. Journal of Physics and Chemistry of Solids, 1998, 59, 55-59.	4.0	18
138	Kinetic Monte Carlo Simulations of Fecu Alloys. Materials Research Society Symposia Proceedings, 1998, 538, 217.	0.1	6
139	Kinetic Monte Carlo Simulations of Fecu Alloys. Materials Research Society Symposia Proceedings, 1998, 540, 643.	0.1	24
140	Microstructure of thermally grown and deposited alumina films probed with positrons. Physical Review B, 1999, 59, 6675-6688.	3.2	8
141	Characteristic of local electron structure, O–T phase transition and superconductivity for oxygen-deficient YBa2Cu3O7â^δsystems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 263, 452-457.	2.1	13
142	Numerical calculations of the radiation-induced strain rate of interstitial solid solutions. II Allowance for the main channels for the influence of impurities on radiationinduced creep. Technical Physics, 1999, 44, 280-284.	0.7	0
143	Deformation induced defects in iron revealed by thermal desorption spectroscopy of tritium. Scripta Materialia, 1999, 40, 313-319.	5.2	78
144	Nature of hydrogen trapping sites in steels induced by plastic deformation. Journal of Alloys and Compounds, 1999, 293-295, 310-316.	5.5	105
145	Positron annihilation study of nanocrystalline iron. Scripta Materialia, 1999, 12, 1059-1062.	0.5	19
146	Positron Lifetime Study of Reactor Pressure Vessel Steels. Physica Status Solidi A, 2000, 178, 651-662.	1.7	51
147	A Review of the Magnetic Relaxation and Its Application to the Study of Atomic Defects in ?-Iron and Its Diluted Alloys. Physica Status Solidi A, 2000, 181, 233-345.	1.7	42
148	Influence of the interatomic potentials on molecular dynamics simulations of displacement cascades. Journal of Nuclear Materials, 2000, 280, 73-85.	2.7	120

#	Article	IF	CITATIONS
149	Recovery of electrical resistivity of high-purity iron irradiated with 30 MeV electrons at 77 K. Journal of Nuclear Materials, 2000, 283-287, 174-178.	2.7	9
150	Study of defect annealing behaviour in neutron irradiated Cu and Fe using positron annihilation and electrical conductivity. Journal of Nuclear Materials, 2000, 276, 269-277.	2.7	66
151	Deformation-induced defects controlling fracture toughness of steel revealed by tritium desorption behaviors. Acta Materialia, 2000, 48, 943-951.	7.9	68
152	A high-resolution BaF2 positron-lifetime spectrometer and experience with its long-term exploitation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 443, 557-577.	1.6	111
153	Study on Defects of Solar Cell Silicon Irradiated with 1 MeV Electrons by Positron Annihilation. Japanese Journal of Applied Physics, 2000, 39, 4693-4698.	1.5	2
154	Kinetic Monte Carlo simulations of cascades in Fe alloys. Materials Research Society Symposia Proceedings, 2000, 650, 3251.	0.1	7
155	Ab initiocalculations of defects in Fe and dilute Fe-Cu alloys. Physical Review B, 2001, 65, .	3.2	376
156	Hydrogen thermal desorption relevant to delayed-fracture susceptibility of high-strength steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 339-347.	2.2	282
157	The role of Cu in displacement cascades examined by molecular dynamics. Journal of Nuclear Materials, 2001, 294, 274-287.	2.7	47
158	Accelerated failure in high strength steel by alternating hydrogen-charging potential. Scripta Materialia, 2001, 44, 947-952.	5.2	40
159	POSITRON ANNIHILATION IN OXYGEN-DEFICIENT YBa2Cu3O7-δCUPRATE AT 77 K AND 300 K. Modern Physics Letters B, 2001, 15, 1181-1189.	1.9	0
160	Thermal vacancy formation andD03ordering in nanocrystalline intermetallic(Fe3Si)95Nb5. Physical Review B, 2001, 63, .	3.2	15
161	Origin of cluster and void structure in melt-quenched Fe-Co-B metallic glasses determined by positron annihilation at low temperatures. Physical Review B, 2001, 64, .	3.2	15
162	Excess Vacancies Induced by Disorder-Order Phase Transformation in Ni <sub>3</sub> Fe. Materials Transactions, 2002, 43, 1486-1488.	1.2	9
163	Positron Annihilation Study in the Early Stage of Fatigue in Type 304 Stainless Steel. Physica Status Solidi A, 2002, 191, 409-417.	1.7	6
164	Direct observation of carbon-decorated defects in fatigued type 304 stainless steel using positron annihilation spectroscopy. Acta Materialia, 2002, 50, 1761-1770.	7.9	23
165	Positron annihilation studies of neutron irradiated and thermally treated reactor pressure vessel steels. Journal of Nuclear Materials, 2002, 302, 89-95.	2.7	25
166	Modeling the microstructural evolution in bcc-Fe during irradiation using kinetic Monte Carlo computer simulation. Journal of Nuclear Materials, 2003, 323, 169-180.	2.7	78

#	Article	IF	CITATIONS
167	Fatigue damage and its interaction with hydrogen in martensitic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 348, 192-200.	5.6	44
168	Ab initiostudy of magnetic effects on diffusion in Â-Fe. Journal of Physics Condensed Matter, 2004, 16, 7033-7043.	1.8	11
169	Vacancy concentration in electron irradiated Ni3Al. Journal of Physics Condensed Matter, 2004, 16, 591-603.	1.8	10
170	Hydrogen-induced defects in bulk niobium. Physical Review B, 2004, 69, .	3.2	77
171	Positron Annihilation Study on Defects of Fe-Cu and Fe-Cu-C Alloys Damaged by Ion Irradiation. Materials Science Forum, 2004, 445-446, 189-191.	0.3	3
172	Influence of defect-impurity complexes on slow positron yield of a tungsten moderator: Positron annihilation, Auger, and SIMS study. Physical Review B, 2004, 69, .	3.2	5
173	Positron Annihilation Study on Point Defects in Fe-Rh Alloys. Materials Science Forum, 2004, 445-446, 84-86.	0.3	0
174	Recent Advances in Point Defect Studies Driven by Density Functional Theory. Defect and Diffusion Forum, 2004, 233-234, 77-86.	0.4	4
175	STUDY OF POSITRON LIFETIME AND INFRARED SPECTROSCOPY FOR Pr-SUBSTITUTED YBa2Cu3O7-δSYSTEMS. International Journal of Modern Physics B, 2004, 18, 3001-3014.	2.0	2
176	Simulation of radiation damage in Fe alloys: an object kinetic Monte Carlo approach. Journal of Nuclear Materials, 2004, 335, 121-145.	2.7	276
177	Ab initiostudy of foreign interstitial atom (C, N) interactions with intrinsic point defects inα-Fe. Physical Review B, 2004, 69, .	3.2	351
178	Temperature and dose dependences of radiation damage in modified stainless steel. Journal of Nuclear Materials, 2005, 343, 325-329.	2.7	15
179	Phase stability in the Fe–Ni system: Investigation by first-principles calculations and atomistic simulations. Acta Materialia, 2005, 53, 4029-4041.	7.9	262
180	Investigation of lattice defects in the early stage of fatigue in iron by positron annihilation techniques. Applied Surface Science, 2005, 242, 304-312.	6.1	27
181	Strain-enhanced sintering of iron powders. Applied Physics A: Materials Science and Processing, 2005, 80, 803-811.	2.3	9
182	Nondestructive detection of fatigue damage in austenitic stainless steel by positron annihilation. Journal of Materials Science, 2005, 40, 6157-6168.	3.7	8
183	High depth nondestructive stress measurements on thick steel alloys. Journal of Applied Physics, 2005, 97, 113540.	2.5	6
184	Simulation of copper atom diffusion via the vacancy mechanism in a dilute Fe-Cu alloy. Physical Review B, 2005, 71, .	3.2	24

#	Article	IF	CITATIONS
185	Ab initio calculations of some atomic and point defect interactions involving C and N in Fe. Philosophical Magazine, 2005, 85, 533-540.	1.6	19
186	Modified embedded-atom method interatomic potential for theFeâ^'Cualloy system and cascade simulations on pure Fe andFeâ^'Cualloys. Physical Review B, 2005, 71, .	3.2	55
187	Point Defect Concentrations in Metastable Fe-C Alloys. Physical Review Letters, 2006, 96, 175501.	7.8	113
188	A modified embedded-atom method interatomic potential for the Fe–C system. Acta Materialia, 2006, 54, 701-711.	7.9	159
189	Nano-size Cu cluster formation in iron by Cu ion implantations. Nuclear Instruments & Methods in Physics Research B, 2006, 245, 180-183.	1.4	7
190	Ab initio modelling of defect properties with substitutional and interstitials elements in steels and Zr alloys. Journal of Nuclear Materials, 2006, 351, 1-19.	2.7	95
191	Embedded-atom potential for Fe and its application to self-diffusion on Fe(100). Surface Science, 2006, 600, 1793-1803.	1.9	168
192	The effect of hydrogen on vacancy generation in iron by plastic deformation. Scripta Materialia, 2006, 55, 1031-1034.	5.2	132
193	Isochronal annealing behaviour of defects induced by swift oxygen ions in high-resistivity p-type silicon. Journal of Physics Condensed Matter, 2007, 19, 216206.	1.8	5
194	Study of Diffusion and Reaction Diffusion in the Fe-C-Nb System. Defect and Diffusion Forum, 2007, 264, 163-169.	0.4	0
195	Atomistic modeling of an Fe system with a small concentration of C. Computational Materials Science, 2007, 40, 119-129.	3.0	165
196	Influence of Cr addition on the defect structure of Fe–Al alloys. Intermetallics, 2007, 15, 177-180.	3.9	12
197	Dimensionality of interstitial cluster motion in bcc-Fe. Physical Review B, 2007, 75, .	3.2	128
198	Specificity of stage III in electron-irradiated Fe-Cr alloys. Philosophical Magazine, 2007, 87, 4847-4874.	1.6	30
199	Computer simulation of carbon diffusion and vacancy–carbon interaction in α-iron. Acta Materialia, 2007, 55, 1-11.	7.9	118
200	Computer simulation of interaction of an edge dislocation with a carbon interstitial in α-iron and effects on glide. Acta Materialia, 2007, 55, 93-104.	7.9	88
201	Positron annihilation study and computational modeling of defect production in neutron-irradiated reactor pressure vessel steels. Nuclear Instruments & Methods in Physics Research B, 2007, 262, 255-260.	1.4	11
202	Study of radiation-induced degradation of RPV steels and model alloys by positron annihilation and Mössbauer spectroscopy. Journal of Nuclear Materials, 2007, 360, 272-281.	2.7	21

#	Article	IF	CITATIONS
203	Computer simulation of the interaction of carbon atoms with self-interstitial clusters in α-iron. Journal of Nuclear Materials, 2007, 361, 52-61.	2.7	35
204	Microstructural analysis of candidate steels pre-selected for new advanced reactor systems. Journal of Nuclear Materials, 2007, 362, 259-267.	2.7	36
205	Positron annihilation at grain boundaries in metals. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3461-3464.	0.8	6
206	Electrical properties and positron annihilation study of (Ba1â^'x Ho x )TiO3 ceramics. Journal of Materials Science, 2007, 42, 7109-7115.	3.7	4
207	First temperature stage evolution of irradiation-induced defects in tungsten studied by positron annihilation spectroscopy. Journal of Nuclear Materials, 2008, 376, 216-221.	2.7	116
208	Positron annihilation characteristics of ODS and non-ODS EUROFER isochronally annealed. Journal of Nuclear Materials, 2008, 376, 222-228.	2.7	29
209	Computer simulation of cascade damage in $\hat{l}\pm$ -iron with carbon in solution. Journal of Nuclear Materials, 2008, 382, 91-95.	2.7	26
210	Characterization of defect accumulation in neutron-irradiated Mo by positron annihilation spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3602-3606.	1.4	15
211	Simulation of characteristics determining pressure effects on the concentration and diffusivity of vacancies in BCC metals: A new approach. Physics of Metals and Metallography, 2008, 105, 544-552.	1.0	15
212	Metallic-covalent interatomic potential for carbon in iron. Physical Review B, 2008, 78, .	3.2	138
213	Influence of Cu, Cr and C on the irradiation defect in Fe: A molecular dynamics simulation study. Journal of Nuclear Materials, 2008, 373, 28-38.	2.7	13
214	Nanocluster-associated vacancies in nanocluster-strengthened ferritic steel as seen via positron-lifetime spectroscopy. Physical Review B, 2009, 79, .	3.2	33
215	Influence of carbon on the kinetics of He migration and clustering in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"&gt;<mml:mrow><mml:mi>α</mml:mi><mml:mtext>-Fe</mml:mtext></mml:mrow>frc first principles. Physical Review B, 2009, 80, .</mml:math 	.3.2 om	40
216	Hydrogen-vacancy complexes in electron-irradiated niobium. Physical Review B, 2009, 79, .	3.2	25
217	Hydrogen-Vacancy Interactions in Fe-C Alloys. Physical Review Letters, 2009, 103, 085501.	7.8	44
218	Partially amorphous nanocomposite obtained from heavily deformed pearlitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 502, 131-138.	5.6	75
219	Positron annihilation characterization of nanostructured ferritic alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 518, 150-157.	5.6	35
220	Computer simulation on the interaction between vacancy and carbon impurity in α-Fe. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3179-3181.	1.4	6

#	Article	IF	CITATIONS
221	First-principles calculations of vacancy–solute element interactions in body-centered cubic iron. Acta Materialia, 2009, 57, 5947-5955.	7.9	120
222	Thermal vacancy formation in Co-based Heusler-type alloys Co2MnZ (Z=Si, Ge, Sn). Journal of Alloys and Compounds, 2009, 480, 462-468.	5.5	7
223	Molecular dynamics simulations of damage and plasticity: The role of <i>ab initio</i> calculations in the development of interatomic potentials. Philosophical Magazine, 2009, 89, 3215-3234.	1.6	4
224	A positron beam study on vacancy formation in iron by ion beam irradiation at low temperature. Journal of Physics: Conference Series, 2010, 225, 012023.	0.4	4
225	Comparison of empirical interatomic potentials for iron applied to radiation damage studies. Journal of Nuclear Materials, 2010, 406, 19-38.	2.7	217
226	Effect of hydrogen on plastic strain localization in single crystals of austenitic stainless steel. Scripta Materialia, 2010, 62, 155-158.	5.2	46
227	Characterization of neutron-irradiated ferritic model alloys and a RPV steel from combined APT, SANS, TEM and PAS analyses. Journal of Nuclear Materials, 2010, 406, 73-83.	2.7	168
228	On the correlation between irradiation-induced microstructural features and the hardening of reactor pressure vessel steels. Journal of Nuclear Materials, 2010, 406, 84-89.	2.7	99
229	Microstructural evolution of irradiated tungsten: Ab initio parameterisation of an OKMC model. Journal of Nuclear Materials, 2010, 403, 75-88.	2.7	177
230	Positron annihilation studies of the interaction between oxygen impurities and nanovoids in neutron-irradiated vanadium. Acta Materialia, 2010, 58, 1868-1875.	7.9	1
231	Effect of magnetic field on the corrosion of iron and St20 steel as studied by positron annihilation. Physica Status Solidi (B): Basic Research, 2010, 247, 1822-1828.	1.5	7
232	Multi-scale modelling of irradiation effects in nuclear power plant materials. , 2010, , 456-543.		2
233	Temperature- and illumination-induced charge-state change in divacancies of GaTe. Physical Review B, 2010, 81, .	3.2	1
234	Dissolution and diffusion properties of carbon in tungsten. Journal of Physics Condensed Matter, 2010, 22, 445504.	1.8	29
235	A single vacancy diffusion near a Fe (110) surface: A molecular dynamics study. Computational Materials Science, 2010, 50, 291-294.	3.0	9
236	Carbon-defect interaction during recovery and recrystallization of heavily deformed pearlitic steel wires. Philosophical Magazine Letters, 2010, 90, 581-588.	1.2	19
237	Effects of vacancy-solute clusters on diffusivity in metastable Fe-C alloys. Physical Review B, 2010, 82, .	3.2	29
238	Modelling radiation damage and He production in tungsten. Physica Scripta, 2011, T145, 014048.	2.5	26

#	Article	IF	CITATIONS
239	Direct simulation of resistivity recovery experiments in carbon-doped α-iron. Physica Scripta, 2011, T145, 014049.	2.5	21
240	Interaction of C with vacancy in W: A first-principles study. Computational Materials Science, 2011, 50, 3213-3217.	3.0	39
241	Positron annihilation in neutron irradiated iron-based materials. Journal of Physics: Conference Series, 2011, 265, 012009.	0.4	11
242	Positron annihilation techniques applied to reactor steels. Journal of Physics: Conference Series, 2011, 265, 012008.	0.4	3
243	Function of Hydrogen in Fracture Process. Materia Japan, 2011, 50, 205-211.	0.1	4
244	First-principles investigation on the effect of carbon on hydrogen trapping in tungsten. Journal of Nuclear Materials, 2011, 415, S709-S712.	2.7	40
245	Vacancy defects in a stress-corrosion-cracked Type 304 stainless steel investigated by positron annihilation spectroscopy. Journal of Nuclear Materials, 2011, 419, 9-14.	2.7	16
246	The MOLDY short-range molecular dynamics package. Computer Physics Communications, 2011, 182, 2587-2604.	7.5	36
247	Radiation-induced defects and low-temperature hardening in the Fe–Cr alloy. Physics of Metals and Metallography, 2011, 111, 212-219.	1.0	2
248	Determination of the size of vacancy-type defects in angstrom ranges by positron annihilation spectroscopy. Russian Microelectronics, 2011, 40, 428-435.	0.5	6
249	Positron annihilation spectroscopy on binary Fe–Cr alloys and ferritic/martensitic steels after neutron irradiation. Acta Materialia, 2011, 59, 6547-6555.	7.9	57
250	Positron Studies of Subsurface Zone in Pure Iron Induced by Sliding. Tribology Letters, 2011, 42, 9-15.	2.6	18
251	On the interaction between radiation-induced defects and foreign interstitial atoms in α-iron. Journal of Nuclear Materials, 2011, 414, 374-381.	2.7	18
252	Evidence of formation of tetravacancies in uniformly oxygen irradiated n-type silicon. Physica B: Condensed Matter, 2011, 406, 693-698.	2.7	2
253	Effects of solute atoms on evolution of vacancy defects in electron-irradiated Fe–Cr-based alloys. Journal of Nuclear Materials, 2011, 408, 194-200.	2.7	12
254	Interaction of carbon with vacancy and self-interstitial atom clusters in α-iron studied using metallic–covalent interatomic potential. Journal of Nuclear Materials, 2011, 408, 272-284.	2.7	55
255	Recovery of electrical resistivity, short-range order formation and migration of defects in electron-irradiated Fe–4Cr alloy doped with carbon. Philosophical Magazine, 2011, 91, 879-898.	1.6	9
256	Variation of Radiation Damage with Irradiation Temperature and Dose in CLAM Steel. Plasma Science and Technology, 2012, 14, 629-631.	1.5	8

#	Article	IF	CITATIONS
257	Structure of nanoscale copper precipitates in neutron-irradiated Fe-Cu-C alloys. Physical Review B, 2012, 85, .	3.2	17
258	Investigation of Dual-Beam-Implanted Oxide-Dispersed-Strengthened FeCrAl Alloy by Positron Annihilation Spectroscopy. Defect and Diffusion Forum, 2012, 331, 149-163.	0.4	5
259	Annihilation Lifetime Spectroscopy Using Positrons from Bremsstrahlung Production. Defect and Diffusion Forum, 2012, 331, 41-52.	0.4	4
260	Some Consequences of Hydrogen-induced Superabundant Vacancy Formation in Metals (III) ^ ^#x301C;Implication for Hydrogen Embrittlement^ ^#x301C;. Materia Japan, 2012, 51, 8-15.	0.1	17
261	Coarse Grained Approach to First Principles Modeling of Radiation Cascade in Large Fe Supercells. Journal of Physics: Conference Series, 2012, 402, 012011.	0.4	1
262	Use of positron annihilation measurements to detect the defect beneath worn surface of stainless steel 1.4301 (EN) under dry sliding condition. Wear, 2012, 294-295, 264-269.	3.1	14
263	Positron trapping mechanism in plastically deformed magnesium. Philosophical Magazine, 2012, 92, 535-549.	1.6	5
264	Positron annihilation study of proton-irradiated reactor pressure vessel steels. Radiation Physics and Chemistry, 2012, 81, 1586-1592.	2.8	28
265	In situ positron beam Doppler broadening measurement of ion-irradiated metals – Current status and potential. Nuclear Instruments & Methods in Physics Research B, 2012, 285, 18-23.	1.4	19
266	Solute–point defect interactions in bcc systems: Focus on first principles modelling in W and RPV steels. Current Opinion in Solid State and Materials Science, 2012, 16, 115-125.	11.5	86
267	Atomistic modeling of thermodynamic equilibrium and polymorphism of iron. Journal of Physics Condensed Matter, 2012, 24, 225404.	1.8	38
268	Study of defects in Fe–Re and Fe–Mo alloys by the Mössbauer and positron annihilation spectroscopies. Solid State Communications, 2012, 152, 1924-1928.	1.9	12
269	Characterization of proton irradiation-induced defect in the A508-3 steel by slow positron beam. Nuclear Instruments & Methods in Physics Research B, 2012, 287, 148-152.	1.4	27
270	Positron annihilation lifetime measurements of austenitic stainless and ferritic/martensitic steels irradiated in the SINQ target irradiation program. Journal of Nuclear Materials, 2012, 431, 52-56.	2.7	17
271	Influence of oversized elements (Hf, Zr, Ti and Nb) on the thermal stability of vacancies in type 316L stainless steels. Journal of Nuclear Materials, 2012, 430, 190-193.	2.7	26
272	Interaction of dislocations with carbon-decorated dislocation loops in bcc Fe: an atomistic study. Journal of Physics Condensed Matter, 2012, 24, 455402.	1.8	11
273	On the thermal stability of vacancy–carbon complexes in alpha iron. Journal of Physics Condensed Matter, 2012, 24, 385401.	1.8	12
274	Grain Boundary Segregation in UFG Alloys Processed by Severe Plastic Deformation. Advanced Engineering Materials, 2012, 14, 968-974.	3.5	82

#	Article	IF	CITATIONS
275	Change in carbon state by low-temperature aging in heavily drawn pearlitic steel wires. Acta Materialia, 2012, 60, 387-395.	7.9	67
276	Post-irradiation annealing behavior of microstructure and hardening of a reactor pressure vessel steel studied by positron annihilation and atom probe tomography. Journal of Nuclear Materials, 2012, 425, 65-70.	2.7	24
277	Positron annihilation lifetime study of oxide dispersion strengthened steels. Journal of Nuclear Materials, 2012, 428, 160-164.	2.7	21
278	Study of PRIMAVERA steel samples by positron annihilation spectroscopy technique II – Lifetime measurements. Journal of Nuclear Materials, 2012, 421, 97-103.	2.7	5
279	Integrated analysis of WWER-440 RPV weld re-embrittlement after annealing. Journal of Nuclear Materials, 2012, 429, 190-200.	2.7	22
280	Grain boundaries in ultrafine grained materials processed by severe plastic deformation and related phenomena. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 540, 1-12.	5.6	425
281	Positron annihilation study on repeated deformation/precipitation aging in Fe–Cu–B–N alloys. Journal of Materials Science, 2013, 48, 6150-6156.	3.7	17
282	Defects in Carbon-Rich Ferrite of Cold-Drawn Pearlitic Steel Wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3882-3889.	2.2	34
283	Positron annihilation studies of electron-irradiated F82H model alloys. Journal of Nuclear Materials, 2013, 440, 617-621.	2.7	15
284	Influence of supersaturated carbon on the diffusion of Ni in ferrite determined by atom probe tomography. Scripta Materialia, 2013, 69, 424-427.	5.2	16
285	Defect formation in iron by MeV ion beam investigated with a positron beam and electrical resistivity measurement. Nuclear Instruments & Methods in Physics Research B, 2013, 315, 153-156.	1.4	6
286	Study of multivacancies in alpha Fe. Journal of Nuclear Materials, 2013, 441, 168-177.	2.7	20
287	Vacancy–carbon complexes in bcc iron: Correlation between carbon content, vacancy concentration and diffusion coefficient. Scripta Materialia, 2013, 69, 690-693.	5.2	18
288	First-principles study of helium, carbon, and nitrogen in austenite, dilute austenitic iron alloys, and nickel. Physical Review B, 2013, 88, .	3.2	71
289	The effect of carbon on the evolution of vacancy defects in electron-irradiated nickel studied by positron annihilation. Journal of Nuclear Materials, 2013, 434, 198-202.	2.7	6
290	Evaluation of the reactor pressure vessel steels by positron annihilation. Journal of Nuclear Materials, 2013, 442, 499-506.	2.7	19
291	Carbon–vacancy complexes as traps for self-interstitial clusters in Fe–C alloys. Journal of Nuclear Materials, 2013, 440, 236-242.	2.7	37
292	Hydrogen-enhanced lattice defect formation and hydrogen embrittlement of cyclically prestressed tempered martensitic steel. Acta Materialia, 2013, 61, 7755-7766.	7.9	64

ARTICLE IF CITATIONS # Vacancy trapping behaviors of oxygen in tungsten: A first-principles study. Journal of Nuclear 293 2.7 17 Materials, 2013, 437, 6-10. Self-interstitial clusters in radiation damage accumulation: coupled molecular dynamics and 294 1.5 metadynamics simulations. European Physical Journal B, 2013, 86, 1. Simulations of ã€^100〉 edge and 1/2ã€^111〉 screw dislocations in α-iron and tungsten and positron lifetime 295 22 calculations. Physica B: Condensed Matter, 2013, 413, 59-63. Microstructural examination of reactor pressure vessel steels by positron annihilation point of view. Progress in Nuclear Energy, 2013, 62, 1-7. Assessment and Validation of Density Functional Approximations for Iron Carbide and Iron Carbide 297 2.5 23 Cation. Journal of Physical Chemistry A, 2013, 117, 169-173. Plastic Deformation of Nanocrystalline Zinc Investigated by Positron Annihilation Lifetime Spectroscopy. Chinese Physics Letters, 2013, 30, 057804. 298 3.3 Positron annihilation study of ageing precipitation in deformed Fe–Cu–B–N–C. Philosophical 299 1.6 4 Magazine, 2013, 93, 4182-4197. Towards understanding the carbon trapping mechanism in copper by investigating the 300 9 1.4 carbonâ€"vacancy interaction. Chinese Physics B, 2013, 22, 076104. Defect investigations of an iron-nickel meteorite. Journal of Physics: Conference Series, 2013, 443, 301 3 0.4 012032. Effect of carbon on copper precipitation in deformed Fe-based alloys studied by positron annihilation 0.4 spectroscopy. Journal of Physics: Conference Series, 2013, 443, 012027. Comprehensive defect characterization of different iron samples after severe plastic deformation. 303 3 0.4 Journal of Physics: Conference Series, 2013, 443, 012033. Effects of Cold-Drawing and Annealing Condition on Thermal Expansion of Fe-36 mass%Ni Alloy. 0.4 Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2013, 77, 537-542. Lattice Defects of Cold-drawn and Aged Fe-36wt%Ni Alloys and Effects of Additions of C and V on Hardness and Thermal Expansion. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 305 0.4 7 99, 380-389. Decoupling of defect and short-range order contributions to resistivity recovery measurements in 306 3.2 binary alloys. Physical Review B, 2014, 90, . Behaviour of vacancies in dilute Fe–Re alloys: a positron annihilation study. Applied Physics A: 307 2.35 Materials Science and Processing, 2014, 117, 1785-1789. Reverse Transformation of Deformation Induced Martensite in Austenitic Stainless Steel. Acta Physica 308 Polonica A, 2014, 125, 710-713. Slow Positron Beam Studies of the Stainless Steel Surface Exposed to Sandblasting. Acta Physica 309 0.5 0 Polonica A, 2014, 125, 714-717. New findings on the atomistic mechanisms active during mechanical milling of a Fe-Y2O3model alloy. Journal of Applied Physics, 2014, 115, 124313.

#	Article	IF	CITATIONS
311	A study of defects in iron-based binary alloys by the Mössbauer and positron annihilation spectroscopies. Journal of Applied Physics, 2014, 115, 103513.	2.5	25
312	Comparative study of irradiated and hydrogen implantation damaged German RPV steels from PAS point of view. Applied Surface Science, 2014, 312, 172-175.	6.1	14
313	In situ resistivity measurements of RAFM base alloys at cryogenic temperatures: The effect of proton irradiation. Journal of Nuclear Materials, 2014, 447, 225-232.	2.7	5
314	Positron annihilation study on deformation-induced Au precipitation in Fe–Au and Fe–Au–B–N alloys. Journal of Materials Science, 2014, 49, 2509-2518.	3.7	12
315	Carbon–vacancy interaction controls lattice damage recovery in iron. Scripta Materialia, 2014, 86, 9-12.	5.2	28
316	Hydrogen-induced superabundant vacancy formation in bcc Fe: Monte Carlo simulation. Acta Materialia, 2014, 67, 418-429.	7.9	23
317	Interaction of carbon–vacancy complex with minor alloying elements of ferritic steels. Journal of Nuclear Materials, 2014, 451, 82-87.	2.7	29
318	Characterization of helium implanted Fe–Cr alloys by means of positron annihilation methods. Journal of Nuclear Materials, 2014, 450, 54-58.	2.7	33
319	Influence of carbon–vacancy interaction on carbon and vacancy diffusivity in tungsten. Computational Materials Science, 2014, 83, 1-4.	3.0	21
320	Carbon diffusion in carbon-supersaturated ferrite and austenite. Journal of Alloys and Compounds, 2014, 586, 129-135.	5.5	22
321	Vacancy dynamic in Ni-Mn-Ga ferromagnetic shape memory alloys. Applied Physics Letters, 2014, 104, .	3.3	11
322	Development of positron annihilation spectroscopy at LEPTA facility. Physics of Particles and Nuclei Letters, 2014, 11, 708-712.	0.4	5
323	Reverse transformation of deformation-induced martensite in austenitic stainless steel studied by positron annihilation. Journal of Materials Science, 2014, 49, 8449-8458.	3.7	35
324	Grain boundary misorientation and positron annihilation characteristics in steel Eurofer processed by equal channel angular pressing. Journal of Materials Science, 2014, 49, 6722-6733. Exact <i>ab initio</i> transport coefficients in bcc <mml:math< td=""><td>3.7</td><td>4</td></mml:math<>	3.7	4

#	Article	IF	CITATIONS
329	The feasibility of Al-based oxide precipitation in Fe–10%Cr alloy by ion implantation. Philosophical Magazine, 2014, 94, 2937-2955.	1.6	8
330	Effect of annealing on point defect population in cold-drawn pearlitic steel wires. Scripta Materialia, 2014, 86, 17-19.	5.2	12
331	Atomistic Simulations of Properties and Phenomena at High Temperatures. , 2014, , 287-393.		2
332	Predicting vacancy-mediated diffusion of interstitial solutes in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt;<mml:mi>α</mml:mi>-Fe. Physical Review B, 2015, 92, .</mml:math 	3.2	41
333	Positron lifetime calculation for possible defects in nanocrystalline copper. Physica Scripta, 2015, 90, 105701.	2.5	7
334	Improvement of Anti-aging Property at Low Temperature by Cr Addition in Bake Hardenable Ultra Low Nitrogen Steels. ISIJ International, 2015, 55, 2648-2656.	1.4	2
335	Cluster dynamics study of damage accumulation in helium-implanted Fe–2.5at%Cr alloy. Radiation Effects and Defects in Solids, 2015, 170, 130-137.	1.2	9
336	Comparison of irradiated and hydrogen implanted German RPV steels using PAS technique. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 222-224.	1.4	4
337	Study of Ordering and Properties in Fe-Ga Alloys With 18Âand 21Âat. pct Ga. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1131-1139.	2.2	17
338	Characterization of ion-irradiated ODS Fe–Cr alloys by doppler broadening spectroscopy using a positron beam. Journal of Nuclear Materials, 2015, 464, 140-146.	2.7	18
339	Equilibrium Vacancy Concentration Driven by Undetectable Impurities. Physical Review Letters, 2015, 115, 015501.	7.8	36
340	The interaction of dislocations and hydrogen-vacancy complexes and its importance for deformation-induced proto nano-voids formation in 1±-Fe. International Journal of Plasticity, 2015, 74, 175-191.	8.8	144
341	Hydrogen-induced superabundant vacancies in electrodeposited Fe–C alloy films. Journal of Alloys and Compounds, 2015, 645, S404-S407.	5.5	7
342	Role of nickel and manganese in recovery of resistivity in iron-based alloys after low-temperature proton irradiation. Philosophical Magazine, 2015, 95, 1680-1695.	1.6	14
343	Characterisation and modelling of vacancy dynamics in Ni–Mn–Ga ferromagnetic shape memory alloys. Journal of Alloys and Compounds, 2015, 639, 180-186.	5.5	12
344	First-principles investigation of site preference and diffusion behaviors of carbon in copper. Nuclear Instruments & Methods in Physics Research B, 2015, 352, 72-76.	1.4	4
345	Effect of irradiation defects on the corrosion behaviors of steels exposed to lead bismuth eutectic in ADS: a first-principles study. Physical Chemistry Chemical Physics, 2015, 17, 12292-12298.	2.8	20
346	The Role of Grain Boundaries and other Defects on Phase Transformations Induced by Severe Plastic Deformation. , 0, 5, 77-92.		5

#	Article	IF	CITATIONS
347	The effect of point defects on diffusion pathway within α-Fe. Journal of Physics Condensed Matter, 2015, 27, 175007.	1.8	7
348	Evolution of dislocation loops in iron under irradiation: The impact of carbon. Scripta Materialia, 2015, 97, 5-8.	5.2	27
349	A modified positron lifetime spectrometer as method of non-destructive testing in materials. Applied Surface Science, 2015, 327, 418-423.	6.1	2
350	Helium behavior in ferritic/martensitic steels irradiated in spallation target. Journal of Nuclear Materials, 2015, 456, 382-388.	2.7	37
351	Statistical model and first-principles simulation on concentration of He V cluster and He bubble formation in α-Fe and W. Journal of Nuclear Materials, 2015, 456, 162-173.	2.7	20
352	Vacancy clustering behavior in hydrogen-charged martensitic steel AISI 410 under tensile deformation. Journal of Physics: Conference Series, 2016, 674, 012006.	0.4	7
353	Energetics of carbon and nitrogen impurities and their interactions with vacancy in vanadium. Chinese Physics B, 2016, 25, 036104.	1.4	8
354	Evolution, migration and clustering of helium-vacancy complexes in RAFM steel- depth resolved positron annihilation Doppler broadening study. Philosophical Magazine, 2016, 96, 2385-2396.	1.6	14
355	Influence of surface vacancy defects on the carburisation of Fe 110 surface by carbon monoxide. Journal of Chemical Physics, 2016, 145, 044710.	3.0	12
356	JRQ and JPA irradiated and annealed reactor pressure vessel steels studied by positron annihilation. Radiation Effects and Defects in Solids, 2016, 171, 231-241.	1.2	3
357	Point defect interactions in iron lattice: a first-principles study. RSC Advances, 2016, 6, 45250-45258.	3.6	21
358	The effect of titanium doping on carbon behavior in tungsten: A first-principles study. Fusion Engineering and Design, 2016, 112, 123-129.	1.9	5
359	The influence of carbon on the resistivity recovery of proton irradiated Fe–11 at.% Cr alloys. Nuclear Materials and Energy, 2016, 9, 465-470.	1.3	6
360	Hydrogen Embrittlement: Theories. , 2016, , 1785-1800.		2
361	Defect energetics of concentrated solid-solution alloys from ab initio calculations: Ni <sub>0.5</sub> Co <sub>0.5</sub> , Ni <sub>0.5</sub> Fe <sub>0.5</sub> , Ni <sub>0.8</sub> Fe <sub>0.2</sub> and Ni <sub>0.8</sub> Cr <sub>0.2</sub> . Physical Chemistry Chemical Physics, 2016, 18, 24043-24056.	2.8	148
362	Recrystallization in severely deformed Ag, Au, and Fe studied by positronâ€annihilation and XRD methods. Physica Status Solidi (B): Basic Research, 2016, 253, 2031-2042.	1.5	19
363	Cold-drawn pearlitic steel wires. Progress in Materials Science, 2016, 82, 405-444.	32.8	113
364	Transport properties of diluteαâ^'Fe(X)solid solutions (X= C, N, O). Physical Review B, 2016, 93, .	3.2	22

#	Article	IF	CITATIONS
365	Defect Recovery in Severely Deformed Ferrite Lamellae During Annealing and Its Impact on the Softening of Cold-Drawn Pearlitic Steel Wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 726-738.	2.2	20
366	Studies of iron exposed to heavy ion implantation using positron annihilation spectroscopy. Radiation Physics and Chemistry, 2016, 122, 60-65.	2.8	18
367	Interactions of Hydrogen with Lattice Defects. , 2016, , 35-63.		0
368	Structural characterization of ultrafine-grained interstitial-free steel prepared by severe plastic deformation. Acta Materialia, 2016, 105, 258-272.	7.9	70
369	Influence of nanovoids on α–α′ phase separation in FeCrAl oxide dispersion strengthened alloy. Scripta Materialia, 2016, 110, 53-56.	5.2	12
370	Experimental studies of irradiated and hydrogen implantation damaged reactor steels. Journal of Nuclear Materials, 2016, 468, 285-288.	2.7	11
371	Method of Evaluating Delayed Fracture Susceptibility of Tempered Martensitic Steel Showing Quasi-Cleavage Fracture. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 666-677.	2.2	26
372	High energy oxygen irradiation-induced defects in Fe-doped semi-insulating indium phosphide by positron annihilation technique. International Journal of Modern Physics B, 2017, 31, 1750019.	2.0	0
373	Positron annihilation spectroscopy study of lattice defects in non-irradiated doped and un-doped fuels. EPJ Nuclear Sciences & Technologies, 2017, 3, 3.	0.7	1
374	Hydrogen-induced superabundant vacancy formation by electrochemical methods in bcc Fe: Monte Carlo simulation. Scripta Materialia, 2017, 134, 20-23.	5.2	5
375	Positron annihilation study of the vacancy clusters in ODS Fe–14Cr alloys. Philosophical Magazine, 2017, 97, 833-850.	1.6	9
376	Quantitative evaluation of hydrogen atoms trapped at single vacancies in tungsten using positron annihilation lifetime measurements: Experiments and theoretical calculations. Journal of Nuclear Materials, 2017, 496, 9-17.	2.7	12
377	Isochronal annealing studies on 1.1 MeV Fe ion irradiated RAFM steel using variable energy slow positron beam. AIP Conference Proceedings, 2017, , .	0.4	1
378	Effective concentration of electrons in metals upon measurements via positron annihilation spectroscopy. Journal of Surface Investigation, 2017, 11, 120-124.	0.5	0
379	Atom probe study on microstructure change in severely deformed pearlitic steels: application to rail surfaces and drawn wires. IOP Conference Series: Materials Science and Engineering, 2017, 219, 012007.	0.6	3
380	Cyclic softening in annealed Zircaloy-2: Role of edge dislocation dipoles and vacancies. Journal of Nuclear Materials, 2018, 502, 154-160.	2.7	3
381	Microstructural transformation of a rail surface induced by severe thermoplastic deformation and its non-destructive monitoring via Barkhausen noise. Wear, 2018, 402-403, 38-48.	3.1	17
382	Characterization of lattice defects in metallic materials by positron annihilation spectroscopy: A review. Journal of Materials Science and Technology, 2018, 34, 577-598.	10.7	127

#	Article	IF	CITATIONS
383	Self-learning kinetic Monte Carlo simulations of diffusion in ferromagnetic <i>α</i> -Fe–Si alloys. Journal of Physics Condensed Matter, 2018, 30, 035903.	1.8	3
384	Transmission electron analysis of dislocation loops in T91 steels from MEGAPIE and MIRE irradiation experiments. Journal of Nuclear Materials, 2018, 506, 43-52.	2.7	7
385	Effect of carbon on behavior of helium in vanadium: A first-principles investigation. International Journal of Modern Physics B, 2018, 32, 1750269.	2.0	0
386	Vacancy Clustering Behavior in Low Alloy Martensitic Steel during Tensile Deformation with Hydrogen Charging. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2018, 104, 655-663.	0.4	11
387	Object Kinetic Monte Carlo (OKMC): A Coarse-Grained Approach to Radiation Damage. , 2018, , 1-26.		2
388	Lattice Defect Formation Behavior of Cold-drawn Pearlitic Steel Fractured under Elastic and Plastic Region in the Presence of Hydrogen. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2018, 104, 36-45.	0.4	9
389	On the empirical determination of positron trapping coefficient at nano-scale helium bubbles in steels irradiated in spallation target. Journal of Nuclear Materials, 2018, 504, 277-280.	2.7	18
390	Contribution of irradiation-induced defects to hardening of a low-copper reactor pressure vessel steel. Acta Materialia, 2018, 155, 402-409.	7.9	35
391	Twin-like fault in Mg–9.8â€⁻wt%Sn alloy. Scripta Materialia, 2018, 155, 89-93.	5.2	15
392	Effective Parameters for the Success of Severe Plastic Deformation Methods. , 2018, , 187-222.		4
393	The unambiguous identification of vacancy migration stage in resistivity recovery of irradiated metals based on trapping of vacancies at probe impurity atoms. Philosophical Magazine, 2018, 98, 2481-2494.	1.6	1
394	Positron Annihilation. , 2018, , 1-46.		1
395	A room temperature multivalent rechargeable iron ion battery with an ether based electrolyte: a new type of post-lithium ion battery. Chemical Communications, 2019, 55, 10416-10419.	4.1	23
396	Verification of the theory of primary radiation damage by comparison with experimental data. Journal of Nuclear Materials, 2019, 525, 22-31.	2.7	19
397	The effect of dislocations on irradiation-induced vacancy-like defects in FeCu alloy and reactor pressure vessel steel. Journal of Nuclear Materials, 2019, 524, 80-89.	2.7	9
398	Effects of dislocations on the early stage of TiC precipitation kinetics in ferritic steel: A comparative study with and without a pre-deformation. Acta Materialia, 2019, 176, 145-154.	7.9	31
399	Neutron irradiation response of a Co-free high entropy alloy. Journal of Nuclear Materials, 2019, 527, 151838.	2.7	64
400	Atomic and Effective Pair Interactions in FeC Alloy with Point Defects: A Cluster Expansion Study. ISIJ International, 2019, 59, 2343-2351.	1.4	0

#	Article	IF	CITATIONS
401	Hydrogen Desorption Spectra from Excess Vacancy-Type Defects Enhanced by Hydrogen in Tempered Martensitic Steel Showing Quasi-cleavage Fracture. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5091-5102.	2.2	35
402	Research Tools: Microstructure, Mechanical Properties, and Computational Thermodynamics. , 2019, , 103-161.		1
403	Characterization and quantification of numerical errors in threshold displacement energy calculated by molecular dynamics in bcc-Fe. Computational Materials Science, 2019, 170, 109189.	3.0	4
404	A study on the mobility of <mml:math xmins:mml="http://www.w3.org/1998/Math/Math/Math/Math/Math/Math/Math/Math&lt;/td"><td>ml:mn&gt;2&lt; 2.7</td><td>/mml:mn&gt;<!--</td--></td></mml:math>	ml:mn>2< 2.7	/mml:mn> </td
405	Stretchy="true">AT commemory commemory commemory. Journal of Nuclear Materials, 2019, 527, 151806. Impact of Abradant Size on Damaged Zone of 304 AISI Steel Characterized by Positron Annihilation Spectroscopy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 1502-1508.	2.2	7
406	Elucidating the role of extended surface defects at Fe surfaces on CO adsorption and dissociation. Applied Surface Science, 2019, 491, 792-798.	6.1	11
407	Energetic Stability of Vacancyâ€Carbon Clusters in Solid Solution Alloys: The Feâ€Crâ€C Case. Physica Status Solidi (B): Basic Research, 2019, 256, 1900130.	1.5	4
408	Selective laser melting of pure iron: Multiscale characterization of hierarchical microstructure. Materials Characterization, 2019, 154, 222-232.	4.4	30
409	Atomistic investigation of the effects of symmetric tilt grain boundary structures on irradiation response of the α-Fe containing carbon in solution. Computational Materials Science, 2019, 166, 82-95.	3.0	4
410	Application of positron beam for the long range effect studies in proton implanted iron. Nuclear Instruments & Methods in Physics Research B, 2019, 443, 84-89.	1.4	1
411	Microstructural evolution of white and brown etching layers in pearlitic rail steels. Acta Materialia, 2019, 171, 48-64.	7.9	81
412	The effect of O2 impurity on surface morphology of polycrystalline W during low-energy and high-flux He+ irradiation. Fusion Engineering and Design, 2019, 139, 96-103.	1.9	4
413	Atomistic simulation of the effect of carbon content and carbon-rich region on irradiation response of α-Fe on picosecond timescale. Nuclear Instruments & Methods in Physics Research B, 2019, 443, 70-78.	1.4	7
414	Irradiation-induced vacancy defects and its recovery behavior in 5N-purity tungsten and 3N-purity tantalum. AIP Conference Proceedings, 2019, , .	0.4	0
415	Development of a positron annihilation measurement system by implantation of 17â€MeV gamma beam into bulk materials. , 2019, , .		0
416	The predominant role of strain-induced vacancies in hydrogen embrittlement of steels: Overview. Acta Materialia, 2019, 165, 722-733.	7.9	188
417	Study of vacancy defects and their thermal stability in MeV Fe ion irradiated RAFM steel using positron beam Doppler broadening spectroscopy. Philosophical Magazine, 2019, 99, 38-54.	1.6	2
418	BOPcat software package for the construction and testing of tight-binding models and bond-order potentials. Computational Materials Science, 2020, 173, 109455.	3.0	6

#	Article	IF	CITATIONS
419	A new mechanism for void-cascade interaction from nondestructive depth-resolved atomic-scale measurements of ion irradiation–induced defects in Fe. Science Advances, 2020, 6, eaba8437.	10.3	32
420	Positron annihilation spectroscopy study of radiation-induced defects in W and Fe irradiated with neutrons with different spectra. Scientific Reports, 2020, 10, 18898.	3.3	13
421	Radiation Damage of Reactor Pressure Vessel Steels Studied by Positron Annihilation Spectroscopy—A Review. Metals, 2020, 10, 1378.	2.3	10
422	Empirical interatomic potential for Fe-C system using original Finnis-Sinclair potential function. Computational Materials Science, 2020, 184, 109871.	3.0	3
423	Segregation of Ni at early stages of radiation damage in NiCoFeCr solid solution alloys. Acta Materialia, 2020, 196, 44-51.	7.9	39
424	Measurement and Simulation of Vacancy Formation in 2-MeV Self-irradiated Pure Fe. Jom, 2020, 72, 2436-2444.	1.9	1
425	The dominant mechanisms for the formation of solute-rich clusters in low-Cu steels under irradiation. Materials Today Energy, 2020, 17, 100472.	4.7	19
426	Positron Annihilation Spectroscopy Study of Carbon-Vacancy Interaction in Low-Temperature Bainite. Scientific Reports, 2020, 10, 487.	3.3	15
427	Oxygen trapping in defect clusters in Fe and FeCr alloy by ion channeling and ab-initio study. Journal of Nuclear Materials, 2020, 532, 152032.	2.7	1
428	Effects of temperature on helium bubble behaviour in Fe–9Cr alloy. Journal of Nuclear Materials, 2020, 532, 152045.	2.7	20
429	Effect of interstitial carbon on the evolution of early-stage irradiation damage in equi-atomic FeMnNiCoCr high-entropy alloys. Journal of Applied Physics, 2020, 127, .	2.5	24
430	Straining-temperature dependence of vacancy behavior in hydrogen-charged austenitic stainless steel 316L. International Journal of Hydrogen Energy, 2021, 46, 6960-6969.	7.1	9
431	Hydrogen Desorption Behavior Trapped in Various Microstructures of High-Strength Steels Using Thermal Desorption Analysis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 531-543.	2.2	8
432	Strain-rate dependence of hydrogen-induced defects in pure α-iron by positron annihilation lifetime spectroscopy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 800, 140281.	5.6	13
433	The Potential of the Internal Friction Technique to Evaluate the Role of Vacancies and Dislocations in the Hydrogen Embrittlement of Steels. Steel Research International, 2021, 92, 2100037.	1.8	7
434	Change in the Positron Annihilation Lifetime of Vacancy Clusters Containing Hydrogen Atoms in Electron-Irradiated F82H. Materials Science Forum, 0, 1024, 71-78.	0.3	Ο
435	Comparison of Hydrogen Thermal Desorption Analysis Curves of Electron-Irradiated F82H and Creep-Ruptured Pure Fe Obtained by Experiments and Simulations. Materials Science Forum, 0, 1024, 135-144.	0.3	0
436	Review of Positron Lifetime Studies of Lattice Defects Formed during Tensile Deformation in a Hydrogen Environment. ISIJ International, 2021, 61, 1056-1063.	1.4	7

#	Article	IF	Citations
π 437	Proton irradiation induced phase transformation in Ni-Mn-Ga thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 266, 115078.	3.5	4
438	Positron annihilation spectroscopy of defects in nuclear and irradiated materials- a review. Materials Characterization, 2021, 174, 110952.	4.4	66
439	NDT study of precipitation processes in thermally aged Fe-20Cr alloy. Journal of Nuclear Materials, 2021, 547, 152799.	2.7	6
440	Tailoring damping properties by electron irradiation in Ni-Mn-Ga shape memory alloys in a wide high-temperature range. Journal of Alloys and Compounds, 2021, 865, 158557.	5.5	5
441	Defects Responsible for Hydrogen Embrittlement in Austenitic Stainless Steel 304 by Positron Annihilation Lifetime Spectroscopy. ISIJ International, 2021, 61, 1927-1934.	1.4	7
442	Enhancement of vacancy diffusion by C and N interstitials in the equiatomic FeMnNiCoCr high entropy alloy. Acta Materialia, 2021, 215, 117093.	7.9	20
443	Positron lifetime spectroscopy applied to pure Tellurium. Indian Journal of Physics, 0, , 1.	1.8	0
444	Investigation of energy band gap and its correlation with vacancy defects in Pb1-xNixO nanoparticles synthesized through sol-gel method. Journal of Sol-Gel Science and Technology, 2021, 100, 89-100.	2.4	8
445	Basic physical behavior of impurity carbon in molybdenum for nuclear material: A systematical first-principles simulation. Nuclear Materials and Energy, 2021, 28, 101053.	1.3	1
446	Under-stoichiometric cementite in decomposing binary Fe-C pearlite exposed to rolling contact fatigue. Acta Materialia, 2021, 216, 117144.	7.9	21
447	The effects of interstitial hydrogen and carbon atoms and aging temperature on annihilation behavior of hydrogen-enhanced strain-induced vacancies in iron. Scripta Materialia, 2021, 202, 114031.	5.2	12
448	Model of vacancy diffusion-assisted intergranular corrosion in low-alloy steel. Acta Materialia, 2021, 220, 117348.	7.9	4
449	Physical mechanisms and parameters for models of microstructure evolution under irradiation in Fe alloys – Part I: Pure Fe. Nuclear Materials and Energy, 2021, 29, 101069.	1.3	7
450	Effect of purity on the vacancy defects induced in self–irradiated tungsten: A combination of PAS and TEM. Journal of Nuclear Materials, 2021, 556, 153175.	2.7	12
451	Application of the Positron Annihilation Technique in Studies of Defects in Solids. NATO ASI Series Series B: Physics, 1986, , 145-178.	0.2	11
452	Positron Annihilation. Topics in Current Physics, 1986, , 249-295.	0.5	16
453	Positronenannihilation. , 1983, , 266-287.		1
454	Migration behavior of tellurium in bcc iron against typical alloying elements: A first-principles study. Computational Materials Science, 2020, 181, 109571.	3.0	7

	CITATION	REPORT	
#	Article	IF	Citations
455	Dissolution of carbon-vacancy complexes in Fe-C alloys. Physical Review Materials, 2017, 1, .	2.4	8
456	Achieving DFT accuracy with a machine-learning interatomic potential: Thermomechanics and defects in bcc ferromagnetic iron. Physical Review Materials, 2018, 2, .	2.4	175
457	A Study of Defects in Iron Based Alloys by Positron Annihilation Techniques. Acta Physica Polonica A, 2008, 113, 1471-1478.	0.5	11
458	Kinetic Monte Carlo Simulations of Initial Process of Solute Atom Cluster Formations Based on ab initio Data Base. Progress in Nuclear Science and Technology, 2011, 2, 538-542.	0.3	2
459	Mechanism of Hydrogen-related Failure II. Zairyo To Kankyo/ Corrosion Engineering, 2007, 56, 382-394.	0.2	23
460	Phase-field simulation of Cu enriched nanoparticles with variation of defects migration energy under neutron irradiation. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 085011.	2.0	3
461	Positron Annihilation of Defects in Metals and Alloys. , 2005, , 661-676.		0
462	Stability of hydrogen in tungsten with carbon impurity: a first-principles study. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 046104.	0.5	0
463	Characterization of the Microstructure of Laser-Hardened Carbon Steels by Means of Positron Lifetime Measurements and Micromagnetics. , 1998, , 701-706.		0
464	Solid-State Reaction and Vacancy-Type Defects in Bilayer Fe/Hf Studied by the Slow Positron Beam. Journal of Applied Mathematics and Physics, 2015, 03, 233-239.	0.4	1
465	Thermonuclear Fusion. SpringerBriefs in Applied Sciences and Technology, 2016, , 1-17.	0.4	0
467	Positron Annihilation Spectroscopy (PAS). Neutron Scattering Applications and Techniques, 2016, , 377-402.	0.2	0
468	Positron Annihilation. , 2019, , 1301-1345.		4
469	Studies on the role of ion mass and energy in the defect production in irradiation experiments in tungsten. Nuclear Fusion, 0, , .	3.5	0
470	Effect of Strain Rate on Hydrogen Embrittlement Susceptibility of Tempered Martensitic Steel and the Rate-Determining Process. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 986-995.	0.4	0
471	Vacancy migration energies in CrMnFeCoNi, CrFeCoNi, and CrFeNi alloys and their effect on atomic diffusion. Scripta Materialia, 2022, 208, 114339.	5.2	10
472	Object Kinetic Monte Carlo (OKMC): A Coarse-Grained Approach to Radiation Damage. , 2020, , 1287-1312.		0
473	Mapping Defects During Phase Transformation in High Cr Content NiCr Solid-Solution Through Positron Trapping. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	CITATIONS
474	Effect of Mn addition on the formation of vacancy-type dislocation loops in $\hat{I}\pm$ -Fe. Materials Characterization, 2022, 185, 111755.	4.4	2
475	Positron lifetime spectroscopy applied to pure sulphur and selenium. Materials Research Express, 2022, 9, 026521.	1.6	0
476	Tailoring defect structure and dopant composition and the generation of various color characteristics in Eu <sup>3+</sup> and Tb <sup>3+</sup> doped MgF <sub>2</sub> phosphors. Physical Chemistry Chemical Physics, 2022, 24, 10915-10927.	2.8	5
477	Mapping defects during phase transformation in high Cr content NiCr solid-solution through positron trapping. Journal of Alloys and Compounds, 2022, 908, 164449.	5.5	1
478	Helium and deuterium retention in Eurofer97 under sequential irradiation at low fluxes. Journal of Nuclear Materials, 2022, 568, 153871.	2.7	5
479	Positron annihilation spectroscopic study of intrinsic and ion-irradiation induced vacancy defects in Zr-containing ODS steels with and without Al. Journal of Alloys and Compounds, 2022, 920, 165869.	5.5	4
480	Surface Defects on Semicoherent and Incoherent NaCl-Type Carbides Dispersed in Hot-Rolled Ferritic Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 0, , .	2.2	0
481	Interactions between irradiation defects and nitrogen in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si72.svg"&gt;<mml:mi>î±</mml:mi>â€Fe: an integrated experimental and theoretical study. Acta Materialia. 2022. 239. 118227.</mml:math 	7.9	3
482	A combined thermal desorption spectroscopy and internal friction study on the interaction of hydrogen with microstructural defects and the influence of carbon distribution. Acta Materialia, 2022, 241, 118374.	7.9	7
483	Preparation of an overall intergranular fracture surface caused by hydrogen and identification of lattice defects present in the local area just below the surface of tempered martensitic steel. Scripta Materialia, 2023, 223, 115072.	5.2	7
484	Understanding the effect of irradiation temperature on microstructural evolution of 20MnMoNi55 steel. Scientific Reports, 2022, 12, .	3.3	1
485	Understanding the structure-property correlation of tin oxide nanoparticles synthesized through the sol-gel technique. Journal of Luminescence, 2023, 253, 119465.	3.1	7
486	Formation mechanism of brown etching layers in pearlitic rail steel. Materialia, 2022, 26, 101625.	2.7	7
487	Effect of the loading mode and temperature on hydrogen embrittlement behavior of 15Cr for steam turbine last stage blade steel. International Journal of Hydrogen Energy, 2023, 48, 8668-8684.	7.1	8
488	Transmission Kikuchi Diffraction Mapping Induces Structural Damage in Atom Probe Specimens. Microscopy and Microanalysis, 2023, 29, 1026-1036.	0.4	1
489	Correlation of micro-structure with the opto-electronic properties of the sol-gel derived powder Sn1-Cd O2 nanoparticles. Materials Chemistry and Physics, 2023, 301, 127627.	4.0	4
490	Determination of hydrogen diffusibility and embrittlement susceptibility of high-strength steel evaluated at different temperatures based on the local equilibrium theory. Acta Materialia, 2023, 246, 118725.	7.9	4
491	Gamma-induced positron spectroscopy for bulk materials using a MeV energy LCS gamma-ray beam. , 2023, 9, 011302-011302.		0

	CITATION	n Report		
#	Article	IF	Citations	
492	An improved meta-heuristic algorithm for developing high-quality ReaxFF force fields of Fe/Ni transition metals and alloys. Computational Materials Science, 2023, 221, 112083.	3.0	2	
494	Effect of the free surface on near-surface void swelling in self-ion irradiated single crystal pure iron considering the carbon effect. Journal of Nuclear Materials, 2023, 585, 154594.	2.7	0	
495	Interactions of Hydrogen with Lattice Defects. , 2023, , 41-76.		0	
496	Probing the Free Volume in Polymers by Means of Positron Annihilation Lifetime Spectroscopy. Polymers, 2023, 15, 3128.	4.5	4	
497	Room Temperature Aging of Autotempered Fe–C Martensite. ISIJ International, 2024, 64, 235-244.	1.4	1	
498	Damage Accumulation and Recovery Involving Vacancy-Type Defects Enhanced by Hydrogen in Tempered Martensitic Steel Showing Quasi-Cleavage Fracture. Key Engineering Materials, 0, 967, 11-16.	0.4	0	
499	Synthesis of High Na <sup>+</sup> Ion-Conducting NASICON-Based Electrolytes and Insights from Diffraction and Positron Annihilation Lifetime Spectroscopy Studies. Journal of Physical Chemistry C, 2024, 128, 768-777.	3.1	0	
500	Photo-induced luminescence mechanism and the correlated defects characteristics in the sol-gel derived samarium ion substituted tin oxide (Sn1-Sm O2) nanoparticles. Ceramics International, 2024, 50, 13591-13607.	4.8	1	
501	Micro-structural and opto-electronic correlation studies of sol–gel derived Zn1â^'xSmxS nanoparticles through the analysis of vacancy type defects. Journal of Materials Science: Materials in Electronics, 2024, 35, .	2.2	0	
502	Co-evolution of point defects and Cr-rich nano-phase in binary Fe-20 at.% Cr alloy: A comprehensive investigation using positron annihilation spectroscopy and atom probe tomography. Acta Materialia, 2024, 268, 119740.	7.9	0	
503	Role of vacancy type defects on microstructural and optoelectronic property of CdS wurtzite nanoparticles. Journal of Molecular Structure, 2024, 1304, 137734.	3.6	0	
504	Effect of non-clustering element C and Mo on irradiation-induced clustering in reactor pressure vessel steels. Acta Materialia, 2024, 269, 119833.	7.9	0	
505	Modeling of Cu Precipitation in Fe–Cu and Fe–Cu–Mn Alloys Under Neutron and Electron Irradiation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2024, 55, 1849-1866.	2.2	0	