Nobumitsu Shohoji

List of Publications by Year
in descending order

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93 papers	1,150 citations	361413 20 h-index	552781 26 g-index
93 all docs	93 docs citations	93 times ranked	436 citing authors

#	Article	IF	Citations
1	Nanodiamond as an effective reinforcing component for nano-copper. Diamond and Related Materials, 2007, 16, 202-204.	3.9	48
2	Statistical model for the non-stoichiometric Cr2N phase. Journal of the Less Common Metals, 1974, 38, 59-70.	0.8	43
3	Solar sintering of cordierite-based ceramics at low temperatures. Solar Energy, 2005, 78, 351-361.	6.1	41
4	Characterisation of solar-synthesised TiCx (x=0.50, 0.625, 0.75, 0.85, 0.90 and 1.0) by X-ray diffraction, density and Vickers microhardness. Materials Chemistry and Physics, 2003, 77, 711-718.	4.0	36
5	Catalytic acceleration of graphitisation of amorphous carbon during synthesis of tungsten carbide from tungsten and excess amorphous carbon in a solar furnace. Materials Chemistry and Physics, 1999, 58, 172-176.	4.0	30
6	Statistical thermodynamic aspects of hydrogen in metals. Surface and Coatings Technology, 1986, 28, 365-382.	4.8	27
7	Fracture toughness of solar-sintered WC with Co additive. Ceramics International, 2002, 28, 345-348.	4.8	27
8	High meta-stability of tungsten sub-carbide W2C formed from tungsten/carbon powder mixture during eruptive heating in a solar furnace. International Journal of Refractory Metals and Hard Materials, 2007, 25, 101-106.	3.8	27
9	Further studies on copper nanocomposite with dispersed single-digit-nanodiamond particles. Diamond and Related Materials, 2007, 16, 2054-2057.	3.9	26
10	Statistical thermodynamics of metal-hydrogen systems. Journal of the Less Common Metals, 1984, 102, 53-65.	0.8	25
11	Kinetic aspects of reaction between tantalum and carbon material (active carbon or graphite) under solar radiation heating. Solar Energy, 2006, 80, 1553-1560.	6.1	25
12	Influence of amorphous carbon on the equilibrium composition of hypostoichiometric monocarbides, TiCx and VCx (x < 1). Materials Chemistry and Physics, 1986, 15, 61-74.	4.0	24
13	Statistical model for nitrogen solutions in molten iron and molten iron alloys. Materials Science and Technology, 1987, 3, 43-48.	1.6	24
14	Weibull statistical analysis of flexure breaking performance for alumina ceramic disks sintered by solar radiation heating. Ceramics International, 2000, 26, 203-206.	4.8	23
15	Synthesis of tungsten sub-carbide W2C from graphite/tungsten powder mixtures by eruptive heating in a solar furnace. International Journal of Refractory Metals and Hard Materials, 2007, 25, 351-357.	3.8	23
16	Production of Cu/diamond composites for first-wall heat sinks. Fusion Engineering and Design, 2011, 86, 2589-2592.	1.9	23
17	Photochemical Effects in Carbide Synthesis of d-group Transition Metals (Ti, Zr; V, Nb, Ta; Cr, Mo, W) in a Solar Furnace at PSA (Plataforma Solar de AlmerÄ±Â´a). Journal of Solar Energy Engineering, Transactions of the ASME, 2001, 123, 109-116.	1.8	22
18	Influence of metastable species (non-graphitic carbon and ammonia gas) in the reactants on the composition of the reaction product (carbide, carbonitride and nitride). Solid State Ionics, 1990, 38, 187-194.	2.7	21

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19	The microstructure and properties of water atomized and extruded Cuî—¸Cr alloy powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 133, 265-269.	5.6	21
20	X-ray diffraction characterisation of carbide and carbonitride of Ti and Zr prepared through reaction between metal powders and carbon powders (graphitic or amorphous) in a solar furnace. International Journal of Refractory Metals and Hard Materials, 1999, 17, 437-443.	3.8	21
21	Carbide formation of Va-group metals (V, Nb and Ta) in a solar furnace. International Journal of Refractory Metals and Hard Materials, 2000, 18, 47-53.	3.8	21
22	Statistical Thermodynamic Approach to Some Hyperstoichiometric Dihydrides of Lanthanides (La, Ce,) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.5	20
23	Carbon solubilities in iron at elevated temperatures analysed by statistical thermodynamics. Materials Science and Technology, 1987, 3, 404-410.	1.6	19
24	Influence of Gas Environment on Synthesis of Silicon Carbide through Reaction between Silicon and Amorphous Carbon in a Solar Furnace at P. S. A. (Plataforma Solar de AlmerÃa). Journal of the Ceramic Society of Japan, 1998, 106, 839-841.	1.3	19
25	Statistical thermodynamic study of the ternary compounds ThXyHx (X = C,N;y < 1;x < 2). Journal of Nuclear Materials, 1985, 127, 88-96.	2.7	18
26	Photochemically promoted formation of higher carbide of molybdenum through reaction between metallic molybdenum powders and graphite powders in a solar furnace. International Journal of Refractory Metals and Hard Materials, 1999, 17, 351-356.	3.8	18
27	Formation of hexagonal Î-MoC1â^'x phase at a temperature lower than 1660Â°C by solar radiation heating under presence of excess free carbon. International Journal of Refractory Metals and Hard Materials, 2007, 25, 220-225.	3.8	18
28	On the construction of a statistical model for primary solid solutions of hydrogen in the group Va transition metals (vanadium, niobium and tantalum). Journal of the Less Common Metals, 1983, 90, L27-L29.	0.8	17
29	The application of statistical thermodynamics to interstitial solid solutions. Journal of the Less Common Metals, 1985, 114, 249-256.	0.8	17
30	Catalytic Graphitisation of Amorphous Carbon during Solar Carbide Synthesis of VIa Group Metals (Cr, Mo and W). Materials Transactions, JIM, 2000, 41, 246-249.	0.9	17
31	Statistical thermodynamic analysis of phosphorus solubility in molten iron.. Transactions of the Iron and Steel Institute of Japan, 1986, 26, 194-197.	0.2	16
32	Clustering of atoms in molten Fe1â^'yTiyNx. Materials Chemistry and Physics, 1989, 24, 163-174.	4.0	16
33	Mechanical Properties of Dense Cordierite Discs Sintered by Solar Radiation Heating. Materials Transactions, 2009, 50, 2221-2228.	1.2	15
34	Statistical thermodynamics of sulphur solution in molten iron.. Transactions of the Iron and Steel Institute of Japan, 1986, 26, 547-550.	0.2	15
35	Consolidation of Cu-nDiamond Nanocomposites: Hot Extrusion vs Spark Plasma Sintering. Materials Science Forum, 2010, 636-637, 682-687.	0.3	14
36	Nitriding VI-group metals (Cr, Mo and W) in stream of NH3 gas under concentrated solar irradiation in a solar furnace at PSA (Plataforma Solar de AlmerÃa). Solar Energy, 2015, 114, 51-60.	6.1	13

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37	Statistical thermodynamics of carbon solutions in metals. Materials Chemistry and Physics, 1985, 13, 567-575.	4.0	12
38	Comments on â€œHysteresis in metal hydridesâ€: Journal of the Less Common Metals, 1983, 90, L5-L6.	0.8	11
39	Crystal Grain Morphology Evolution over Ti, V, Nb and Ta Surface Heated in N₂ Gas Environment to 2000°C by Filtered Concentrated Solar Beam in a Solar Furnace at PROMES-CNRS. Materials Transactions, 2012, 53, 537-545.	1.2	11
40	Statistical thermodynamics of hydrogen solution in some lanthanides. Physica Status Solidi (B): Basic Research, 1983, 119, K87.	1.5	10
41	Statistical model for the hydrogen solution in bcc Nb1â^'y, My alloys (M = Al, Cu, Sn, Ni, Pd). Materials Letters, 1985, 3, 206-208.	2.6	10
42	Ordering of carbon atoms in titanium monocarbide. Materials Chemistry and Physics, 1987, 16, 475-488.	4.0	10
43	Statistical Thermodynamics as a Tool for Evaluating Atom Clustering around Interstitial Atom. Materials Transactions, 2001, 42, 2225-2231.	1.2	10
44	Heterogeneity along the Height in Disc Specimens of Graphite/Tungsten Powder Mixtures with Sub-Stoichiometric Carbon Atom Ratios Heated by Concentrated Solar Beam to 1600°C. Materials Transactions, 2010, 51, 381-388.	1.2	10
45	Interaction between hydrogen atoms in metals. Journal of Materials Science Letters, 1986, 5, 522-524.	0.5	9
46	Tetragonality in crystal lattice of zirconium dihydride. Journal of Materials Science Letters, 1987, 6, 1251-1253.	0.5	9
47	Stability of interstitial elements in metal lattice evaluated by statistical thermodynamics.. ISIJ International, 1990, 30, 472-474.	1.4	9
48	Statistical model for nitrogen solution in molten iron containing another interstitial constituent (carbon or silicon). Materials Chemistry and Physics, 1992, 32, 153-159.	4.0	9
49	Nano-Meter Size WC Whiskers Grown over a Compacted Pellet of Graphite/Tungsten Powder Mixture Heated with an Ultra-Fast Heating Rate by a Concentrated Solar Beam. Materials Transactions, 2007, 48, 919-923.	1.2	9
50	Bulk Copper-Nanodiamond Nanocomposites; Processing and Properties. Materials Science Forum, 0, 587-588, 443-447.	0.3	9
51	Carbide Synthesis from Graphite/molybdenum Powder Mixtures at Sub-Stoichiometric Ratios under Solar Radiation Heating to 1900°C. Materials Transactions, 2008, 49, 2673-2678.	1.2	9
52	Reactions of Ti, V, Nb and Ta with N₂ Gas at 2000°C under Concentrated Solar Beam in a Solar Furnace at PROMES-CNRS. Materials Transactions, 2011, 52, 719-727.	1.2	9
53	A theory of suppressed nitrogen solubility in Feâ€“Zâ€“N ternary alloy systems in the relatively high range of concentration of Z (Z=Si or C). Materials Chemistry and Physics, 1997, 50, 275-279.	4.0	8
54	M - C dipole formation in fcc (face centred cubic) Fe1-yMyCxsolid solution (M=Ti,Nb). Materials Science and Technology, 2004, 20, 301-306.	1.6	8

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55	Synthesizing higher nitride of molybdenum (Mo) and iron (Fe) in ammonia (NH₃) gas stream under irradiation of concentrated solar beam in a solar furnace. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 959-971.	0.9	8
56	Estimation of carbon-metal interaction in the carbides of d-transition metals. Materials Chemistry and Physics, 1987, 17, 391-398.	4.0	7
57	Atomic configuration in hexagonal-close-packed TiCzHx phase estimated by statistical thermodynamics. Materials Chemistry and Physics, 1995, 39, 193-199.	4.0	7
58	Statistical thermodynamic approach to carbon solubility in face centred cubic Fe_{1-y}Ni_yalloy lattice. Materials Science and Technology, 1996, 12, 373-377.	1.6	7
59	Statistical thermodynamic approach to austenitic Fe1-yNbyNxsystem. Materials Science and Technology, 2003, 19, 429-434.	1.6	7
60	Role of Unstable Chemical Species (Non-Graphitic Carbon and Flowing NH₃ Gas) on the Equilibrium Point of the Reaction Product (Carbide, Carbo-Nitride or Nitride). Materials Science Forum, 2004, 449-452, 221-224.	0.3	7
61	TEM Studies of Nanocarbons and Nanodiamonds (ND): Mechanical milling of ND and Cu. Diamond and Related Materials, 2007, 16, 2058-2062.	3.9	7
62	Reactions of IVa-group metals, Ti and Zr, with uncracked NH3 gas at a temperature in the range between 600 and 800Â°C under heating with concentrated solar beam at PSA. Solar Energy, 2016, 138, 119-127.	6.1	7
63	Decomposition pressure of YN and UN-YN solid solutions. Journal of Nuclear Materials, 1978, 73, 89-96.	2.7	6
64	Carbon solubility in face centred cubic Co1â^'yNiy alloy lattice analysed by statistical thermodynamics. Materials Chemistry and Physics, 1997, 51, 265-268.	4.0	6
65	Tungstenâ€“microdiamond composites for plasma facing components. Journal of Nuclear Materials, 2011, 416, 45-48.	2.7	6
66	Roles of Unstable Chemical Species and Non-Equilibrium Reaction Routes on Properties of Reaction Productâ€”A Review. Journal of Surfaces and Interfaces of Materials, 2014, 2, 182-205.	0.5	6
67	Statistical thermodynamic appreciation of decomposition of metal nitrides at elevated temperatures. Journal of Nuclear Materials, 1990, 170, 109-112.	2.7	5
68	Surface Singularity Upon Solar Radiation Heating of Graphite/Tungsten Powder Mixture Compacts to Temperatures in Excess of 1600Â°C. Materials Science Forum, 0, 587-588, 993-997.	0.3	5
69	Synthesising Carbo-Nitrides of some D-Group Transition Metals Using a Solar Furnace at PSA. Materials Science Forum, 0, 730-732, 153-158.	0.3	5
70	Effects of NaBH₄ Additions on Hydrogen Absorption by Nanostructured FeTi Powders. Materials Science Forum, 0, 587-588, 921-925.	0.3	4
71	Carbide Phases Synthesised from C/Mo Powder Compacts at Specified Sub-Stoichiometric Ratios by Solar Radiation Heating to Temperatures between 1600°C and 2500°C. Materials Transactions, 2009, 50, 2813-2819.	1.2	4
72	Hydrogen absorption in epitaxial bcc V (001) thin films analysed by statistical thermodynamics. Thin Solid Films, 2010, 518, 7167-7173.	1.8	4

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73	Influence of Colour Filter on Reaction Products from Mo and W Heated to 2000°C by Concentrated Solar Beam in N₂ Gas Environment in a Solar Furnace at PROMES-CNRS. Materials Transactions, 2011, 52, 2083-2090.	1.2	4
74	Influence of Linear Flow Velocity of Uncracked Ammonia (NH3) Gas on Formation of Higher Nitrides, ?-MoN and ?-Fe2N, under Concentrated Solar Irradiation in the SF40 Solar Furnace at PSA. International Journal of Materials and Chemistry, 2019, 9, 1-12.	1.0	4
75	Glass-forming ability of multicomponent alloys viewed from a statistical thermodynamic standpoint. Journal of Materials Science Letters, 1988, 7, 903-905.	0.5	3
76	Process Parameters Affecting Particle Size of Water Atomised Bronze Powder. Powder Metallurgy, 1988, 31, 277-280.	1.7	3
77	Interaction energy parameters in hypostoichiometric mono-carbides, TiCxand NbCx, evaluated by statistical thermodynamics. Materials Science and Technology, 2003, 19, 1469-1472.	1.6	3
78	Synthesis of Non-Cubic Nitride Phases of Va-Group Metals (V, Nb, and Ta) from Metal Powders in Stream of NH3 Gas under Concentrated Solar Radiation. ChemEngineering, 2021, 5, 19.	2.4	3
79	Inhibition of Grain and Precipitate Growth of AISI M2 Type Tool Steel Powders by Low-temperature Nitriding using ffowing ammonia gas.. ISIJ International, 1996, 36, 363-365.	1.4	3
80	Empirical Expression of Phosphorus Solubility in Molten Fe1-yCry Given as Functions of Temperature and Phosphorus Activity. ISIJ International, 2005, 45, 1226-1231.	1.4	3
81	Statistical Thermodynamic Analysis of the Very Dilute Interstitial Solid Solutions. International Journal of Materials Research, 1985, 76, 192-197.	0.3	3
82	Statistical thermodynamic approach to molten Feâ€“Crâ€“P. International Journal of Materials Research, 2008, 99, 245-250.	0.3	2
83	Statistical Thermodynamic Analysis for Hydrogen Absorption Behaviour in a Four Monolayers (4 ML) Thick bcc Vanadium (110) Superlattice Being in Contact with Molybdenum Layer. Materials Transactions, 2012, 53, 1273-1277.	1.2	2
84	Suppressed Hydrogen (H) Solubility in Body Centered Cubic Vanadium (V) by Alloying with Molybdenum (Mo), Chromium (Cr), Iron (Fe) or Cobalt (Co) Appreciated in Terms of Statistical Thermodynamics. Materials Transactions, 2016, 57, 321-328.	1.2	2
85	Chemical Activities, a(H) and a(X), of Constituents in H₂X Type Gas Molecules (X = O or S) at Arbitrary Degree of Dissociation. International Journal of Materials and Chemistry, 2012, 2, 10-15.	1.0	2
86	Statistical Thermodynamic Analysis for Isothermal Hydrogenation Performances of Mg₂₋_yPr_yNi₄Intermetallics (y = 0.6, 0.8, 1.0). International Journal of Materials and Chemistry, 2012, 2, 90-100.	1.0	2
87	Unique features of hydrogen in palladium metal lattice: hints for discussing the possible occurrence of cold nuclear fusion. Journal of Materials Science Letters, 1990, 9, 231-232.	0.5	1
88	Statistical Thermodynamic Aspects of Hydrogen in Metals*. Zeitschrift Fur Physikalische Chemie, 1985, 146, 214-214.	2.8	0
89	Role of Unstable Chemical Species (Non-Graphitic Carbon and Flowing NH3 Gas) on the Equilibrium Point of the Reaction Product (Carbide, Carbo-Nitride or Nitride). ChemInform, 2005, 36, no.	0.0	0
90	Fe K-Edge XAFS Study of Slate Powders Heat Treated up to 1000Â°C. Materials Science Forum, 2010, 636-637, 922-927.	0.3	0

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91	Effect of Milling Energy Modulation on the High Temperature Synthesis of FeTi. Materials Science Forum, 0, 636-637, 934-940.	0.3	0
92	Multiscale Copper-ÂµDiamond Nanostructured Composites. Materials Science Forum, 0, 730-732, 925-930.	0.3	0
93	Statistical thermodynamic characterization for hydrogen (H) absorption in quasi-crystalline Ti0.45Zr0.38Ni0.17 and amorphous Ti0.49Zr0.29Ni0.22Si0.09 alloys. Thin Solid Films, 2020, 705, 138011.	1.8	0