

Nobumitsu Shohoji

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Synthesis of Non-Cubic Nitride Phases of Va-Group Metals (V, Nb, and Ta) from Metal Powders in Stream of NH ₃ Gas under Concentrated Solar Radiation. ChemEngineering, 2021, 5, 19.	2.4	3
2	Statistical thermodynamic characterization for hydrogen (H) absorption in quasi-crystalline Ti _{0.45} Zr _{0.38} Ni _{0.17} and amorphous Ti _{0.49} Zr _{0.29} Ni _{0.22} Si _{0.09} alloys. Thin Solid Films, 2020, 705, 138011.	1.8	0
3	Influence of Linear Flow Velocity of Uncracked Ammonia (NH ₃) Gas on Formation of Higher Nitrides, γ -MoN and γ -Fe ₂ N, under Concentrated Solar Irradiation in the SF40 Solar Furnace at PSA. International Journal of Materials and Chemistry, 2019, 9, 1-12.	1.0	4
4	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
5	Reactions of IVa-group metals, Ti and Zr, with uncracked NH ₃ gas at a temperature in the range between 600 and 800°C under heating with concentrated solar beam at PSA. Solar Energy, 2016, 138, 119-127.	6.1	7
6	Nitriding VI-group metals (Cr, Mo and W) in stream of NH ₃ gas under concentrated solar irradiation in a solar furnace at PSA (Plataforma Solar de Almer�a). Solar Energy, 2015, 114, 51-60.	6.1	13
7	Roles of Unstable Chemical Species and Non-Equilibrium Reaction Routes on Properties of Reaction Product�A Review. Journal of Surfaces and Interfaces of Materials, 2014, 2, 182-205.	0.5	6
8	Synthesizing higher nitride of molybdenum (Mo) and iron (Fe) in ammonia (NH ₃) gas stream under irradiation of concentrated solar beam in a solar furnace. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 959-971.	0.9	8
9	Statistical Thermodynamic Analysis for Hydrogen Absorption Behaviour in a Four Monolayers (4 ML) Thick <i>bcc</i> Vanadium (110) Superlattice Being in Contact with Molybdenum Layer. Materials Transactions, 2012, 53, 1273-1277.	1.2	2
10	Crystal Grain Morphology Evolution over Ti, V, Nb and Ta Surface Heated in N ₂ 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
11	Chemical Activities, <i>a</i> (H) and <i>a</i> (X), of Constituents in H ₂ X 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
12	Statistical Thermodynamic Analysis for Isothermal Hydrogenation Performances of Mg ₂ YPr ₄ Ni ₄ Intermetallics (<i>y</i> = 0.6, 0.8, 1.0). International Journal of Materials and Chemistry, 2012, 2, 90-100.	1.0	2
13	Production of Cu/diamond composites for first-wall heat sinks. Fusion Engineering and Design, 2011, 86, 2589-2592.	1.9	23
14	Influence of Colour Filter on Reaction Products from Mo and W Heated to 2000°C by Concentrated Solar Beam in N ₂ Gas Environment in a Solar Furnace at PROMES-CNRS. Materials Transactions, 2011, 52, 2083-2090.	1.2	4
15	Reactions of Ti, V, Nb and Ta with N ₂ Gas at 2000°C under Concentrated Solar Beam in a Solar Furnace at PROMES-CNRS. Materials Transactions, 2011, 52, 719-727.	1.2	9
16	Tungsten�microdiamond composites for plasma facing components. Journal of Nuclear Materials, 2011, 416, 45-48.	2.7	6
17	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
18	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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19	Consolidation of Cu-nDiamond Nanocomposites: Hot Extrusion vs Spark Plasma Sintering. Materials Science Forum, 2010, 636-637, 682-687.	0.3	14
20	Fe K-Edge XAFS Study of Slate Powders Heat Treated up to 1000Å°C. Materials Science Forum, 2010, 636-637, 922-927.	0.3	0
21	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
22	Mechanical Properties of Dense Cordierite Discs Sintered by Solar Radiation Heating. Materials Transactions, 2009, 50, 2221-2228.	1.2	15
23	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
24	Statistical thermodynamic approach to molten Fe³-Cr³-P. International Journal of Materials Research, 2008, 99, 245-250.	0.3	2
25	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
26	Nanodiamond as an effective reinforcing component for nano-copper. Diamond and Related Materials, 2007, 16, 202-204.	3.9	48
27	TEM Studies of Nanocarbons and Nanodiamonds (ND): Mechanical milling of ND and Cu. Diamond and Related Materials, 2007, 16, 2058-2062.	3.9	7
28	Further studies on copper nanocomposite with dispersed single-digit-nanodiamond particles. Diamond and Related Materials, 2007, 16, 2054-2057.	3.9	26
29	High meta-stability of tungsten sub-carbide W ₂ C 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
30	Formation of hexagonal W-MoC _{1-x} phase at a temperature lower than 1660Å°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
31	Synthesis of tungsten sub-carbide W ₂ C 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
32	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
33	Solar sintering of cordierite-based ceramics at low temperatures. Solar Energy, 2005, 78, 351-361.	6.1	41
34	Role of Unstable Chemical Species (Non-Graphitic Carbon and Flowing NH ₃ Gas) on the Equilibrium Point of the Reaction Product (Carbide, Carbo-Nitride or Nitride). ChemInform, 2005, 36, no.	0.0	0
35	Empirical Expression of Phosphorus Solubility in Molten Fe _{1-y} Cr _y Given as Functions of Temperature and Phosphorus Activity. ISIJ International, 2005, 45, 1226-1231.	1.4	3
36	Role of Unstable Chemical Species (Non-Graphitic Carbon and Flowing NH ₃ 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

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37	M - C dipole formation in fcc (face centred cubic) Fe _{1-y} MyC _x solid solution (M=Ti,Nb). Materials Science and Technology, 2004, 20, 301-306.	1.6	8
38	Characterisation of solar-synthesised TiC _x (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
39	Interaction energy parameters in hypostoichiometric mono-carbides, TiC _x and NbC _x , evaluated by statistical thermodynamics. Materials Science and Technology, 2003, 19, 1469-1472.	1.6	3
40	Statistical thermodynamic approach to austenitic Fe _{1-y} N _b yN _x system. Materials Science and Technology, 2003, 19, 429-434.	1.6	7
41	Fracture toughness of solar-sintered WC with Co additive. Ceramics International, 2002, 28, 345-348.	4.8	27
42	Statistical Thermodynamics as a Tool for Evaluating Atom Clustering around Interstitial Atom. Materials Transactions, 2001, 42, 2225-2231.	1.2	10
43	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 Almer��a). Journal of Solar Energy Engineering, Transactions of the ASME, 2001, 123, 109-116.	1.8	22
44	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
45	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
46	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
47	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
48	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
49	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
50	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 Almer��a). Journal of the Ceramic Society of Japan, 1998, 106, 839-841.	1.3	19
51	A theory of suppressed nitrogen solubility in Fe��Zn��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
52	Carbon solubility in face centred cubic Co _{1-y} Ni _y alloy lattice analysed by statistical thermodynamics. Materials Chemistry and Physics, 1997, 51, 265-268.	4.0	6
53	Statistical thermodynamic approach to carbon solubility in face centred cubic Fe _{1-y} Ni _y alloy lattice. Materials Science and Technology, 1996, 12, 373-377.	1.6	7
54	Inhibition of Grain and Precipitate Growth of AISI M2 Type Tool Steel Powders by Low-temperature Nitriding using flowing ammonia gas.. ISIJ International, 1996, 36, 363-365.	1.4	3

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55	Atomic configuration in hexagonal-close-packed TiCzHx phase estimated by statistical thermodynamics. <i>Materials Chemistry and Physics</i> , 1995, 39, 193-199.	4.0	7
56	Statistical model for nitrogen solution in molten iron containing another interstitial constituent (carbon or silicon). <i>Materials Chemistry and Physics</i> , 1992, 32, 153-159.	4.0	9
57	The microstructure and properties of water atomized and extruded Cu—Cr alloy powders. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 133, 265-269.	5.6	21
58	Unique features of hydrogen in palladium metal lattice: hints for discussing the possible occurrence of cold nuclear fusion. <i>Journal of Materials Science Letters</i> , 1990, 9, 231-232.	0.5	1
59	Statistical thermodynamic appreciation of decomposition of metal nitrides at elevated temperatures. <i>Journal of Nuclear Materials</i> , 1990, 170, 109-112.	2.7	5
60	Influence of metastable species (non-graphitic carbon and ammonia gas) in the reactants on the composition of the reaction product (carbide, carbonitride and nitride). <i>Solid State Ionics</i> , 1990, 38, 187-194.	2.7	21
61	Stability of interstitial elements in metal lattice evaluated by statistical thermodynamics.. <i>ISIJ International</i> , 1990, 30, 472-474.	1.4	9
62	Clustering of atoms in molten Fe _{1-y} Ti _y N _x . <i>Materials Chemistry and Physics</i> , 1989, 24, 163-174.	4.0	16
63	Glass-forming ability of multicomponent alloys viewed from a statistical thermodynamic standpoint. <i>Journal of Materials Science Letters</i> , 1988, 7, 903-905.	0.5	3
64	Process Parameters Affecting Particle Size of Water Atomised Bronze Powder. <i>Powder Metallurgy</i> , 1988, 31, 277-280.	1.7	3
65	Statistical model for nitrogen solutions in molten iron and molten iron alloys. <i>Materials Science and Technology</i> , 1987, 3, 43-48.	1.6	24
66	Carbon solubilities in iron at elevated temperatures analysed by statistical thermodynamics. <i>Materials Science and Technology</i> , 1987, 3, 404-410.	1.6	19
67	Tetragonality in crystal lattice of zirconium dihydride. <i>Journal of Materials Science Letters</i> , 1987, 6, 1251-1253.	0.5	9
68	Ordering of carbon atoms in titanium monocarbide. <i>Materials Chemistry and Physics</i> , 1987, 16, 475-488.	4.0	10
69	Estimation of carbon-metal interaction in the carbides of d-transition metals. <i>Materials Chemistry and Physics</i> , 1987, 17, 391-398.	4.0	7
70	Statistical thermodynamic analysis of phosphorus solubility in molten iron.. <i>Transactions of the Iron and Steel Institute of Japan</i> , 1986, 26, 194-197.	0.2	16
71	Statistical thermodynamic aspects of hydrogen in metals. <i>Surface and Coatings Technology</i> , 1986, 28, 365-382.	4.8	27
72	Influence of amorphous carbon on the equilibrium composition of hypostoichiometric monocarbides, TiC _x and VC _x (x < 1). <i>Materials Chemistry and Physics</i> , 1986, 15, 61-74.	4.0	24

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73	Interaction between hydrogen atoms in metals. Journal of Materials Science Letters, 1986, 5, 522-524.	0.5	9
74	Statistical thermodynamics of sulphur solution in molten iron.. Transactions of the Iron and Steel Institute of Japan, 1986, 26, 547-550.	0.2	15
75	Statistical thermodynamics of carbon solutions in metals. Materials Chemistry and Physics, 1985, 13, 567-575.	4.0	12
76	Statistical thermodynamic study of the ternary compounds ThX _y H _x (X = C,N;y < 1;x < 2). Journal of Nuclear Materials, 1985, 127, 88-96.	2.7	18
77	Statistical Thermodynamic Aspects of Hydrogen in Metals*. Zeitschrift Fur Physikalische Chemie, 1985, 146, 214-214.	2.8	0
78	Statistical model for the hydrogen solution in bcc Nb1 ^α γ, My alloys (M = Al, Cu, Sn, Ni, Pd). Materials Letters, 1985, 3, 206-208.	2.6	10
79	The application of statistical thermodynamics to interstitial solid solutions. Journal of the Less Common Metals, 1985, 114, 249-256.	0.8	17
80	Statistical Thermodynamic Analysis of the Very Dilute Interstitial Solid Solutions. International Journal of Materials Research, 1985, 76, 192-197.	0.3	3
81	Statistical thermodynamics of metal-hydrogen systems. Journal of the Less Common Metals, 1984, 102, 53-65.	0.8	25
82	Statistical Thermodynamic Approach to Some Hyperstoichiometric Dihydrides of Lanthanides (La, Ce). Tj ETQq0 0 0 rgBT /Overlock 10 T	1.5	20
83	Statistical thermodynamics of hydrogen solution in some lanthanides. Physica Status Solidi (B): Basic Research, 1983, 119, K87.	1.5	10
84	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
85	Comments on "Hysteresis in metal hydrides". Journal of the Less Common Metals, 1983, 90, L5-L6.	0.8	11
86	Decomposition pressure of YN and UN-YN solid solutions. Journal of Nuclear Materials, 1978, 73, 89-96.	2.7	6
87	Statistical model for the non-stoichiometric Cr ₂ N phase. Journal of the Less Common Metals, 1974, 38, 59-70.	0.8	43
88	Bulk Copper-Nanodiamond Nanocomposites; Processing and Properties. Materials Science Forum, 0, 587-588, 443-447.	0.3	9
89	Surface Singularity Upon Solar Radiation Heating of Graphite/Tungsten Powder Mixture Compacts to Temperatures in Excess of 1600 ^o C. Materials Science Forum, 0, 587-588, 993-997.	0.3	5
90	Effects of NaBH ₄ Additions on Hydrogen Absorption by Nanostructured FeTi Powders. Materials Science Forum, 0, 587-588, 921-925.	0.3	4

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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	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
93	Multiscale Copper-µDiamond Nanostructured Composites. Materials Science Forum, 0, 730-732, 925-930.	0.3	0