Yo Tomota

List of Publications by Year in descending order

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99 papers	1,059 citations	471371 17 h-index	501076 28 g-index
99 all docs	99 docs citations	99 times ranked	639 citing authors

#	Article	IF	Citations
1	Effect of Prior Deformation of Austenite on the γ→ε Martensitic Transformation in Fe–Mn Alloys. Materials Transactions, JIM, 1991, 32, 222-228.	0.9	91
2	Tensile Behavior of a TRIP-aided Ultra-fine Grained Steel Studied by Neutron Diffraction. ISIJ International, 2011, 51, 145-150.	0.6	59
3	Work Hardening, Dislocation Structure, and Load Partitioning in Lath Martensite Determined by In Situ Neutron Diffraction Line Profile Analysis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4080-4092.	1.1	59
4	Composite Behavior of Lath Martensite Steels Induced by Plastic Strain, a New Paradigm for the Elastic-Plastic Response of Martensitic Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 159-167.	1.1	56
5	Tensile Behavior of Fine-grained Steels. ISIJ International, 2008, 48, 1107-1113.	0.6	53
6	Microscopic Studies on Stress-induced Martensite Transformation and Its Reversion in an Fe–Mn–Si–Cr–Ni Shape Memory Alloy. Materials Transactions, JIM, 1995, 36, 719-728.	0.9	48
7	Microstructure Evolution during Reverse Transformation of Austenite from Tempered Martensite in Low Alloy Steel. ISIJ International, 2017, 57, 533-539.	0.6	31
8	Tensile Properties Obtained by Static Tensile Tests in Ultrafine-grained Ferrite-Cementite Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2003, 89, 1170-1177.	0.1	28
9	High stereographic resolution texture and residual stress evaluation using time-of-flight neutron diffraction. Journal of Applied Crystallography, 2018, 51, 746-760.	1.9	27
10	In-situ neutron diffraction during tension-compression cyclic deformation of a pearlite steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 676, 522-530.	2.6	24
11	<i>In situ</i> Observations of Transformation Behavior upon Heating for a 1.5Mn-1.5Si-0.2C Steel -Comparison between Neutron Diffraction, XRD, EBSD and Dilatometry-. ISIJ International, 2017, 57, 2237-2244.	0.6	24
12	Phase Transformation, Microstructure, and Mechanical Behavior in Fe-Mn Alloys. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1991, 77, 315-325.	0.1	23
13	Recent Progress of Line-profile Analyses for Neutron or X-ray Diffraction. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2017, 103, 73-85.	0.1	23
14	Mechanical Properties of Two-Ductile-Phase Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1981, 67, 439-455.	0.1	21
15	Quantitative analysis of fine nano-sized precipitates in low-carbon steels by small angle neutron scattering. Applied Physics A: Materials Science and Processing, 2010, 99, 613-620.	1.1	20
16	Development of engineering diffractometer at J-PARC. Physica B: Condensed Matter, 2006, 385-386, 1043-1045.	1.3	19
17	Strength and Ductility Related with Structure of Dual Phase High Strength Steel Sheet. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1982, 68, 1147-1158.	0.1	18
18	Estimation of Flow Stress by the Kocks-Mecking Model at Strain Rate of 10³/s for an Ultra Low Carbon Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2001, 87, 657-664.	0.1	17

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19	Comparison of the Measurements of Austenite Volume Fraction by Various Methods for Mn-Si-C Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2017, 103, 570-578.	0.1	17
20	In-situ neutron diffraction analysis on deformation behavior of duplex high Mn steel containing austenite and É›-martensite. Metals and Materials International, 2012, 18, 751-755.	1.8	16
21	Mechanical Behavior of Individual Retained Austenite Grains in High Carbon Quenched-tempered Steel. ISIJ International, 2019, 59, 559-566.	0.6	16
22	Tensile Deformation Behavior at High Strain Rate for Ultrafine-grained Ferrite cementite Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2004, 90, 1043-1049.	0.1	15
23	Dynamic Recrystallization and Dynamic Precipitation Behaviors of a 17Niâ€“0.2C Martensite Steel Studied by In Situ Neutron Diffraction. ISIJ International, 2008, 48, 1618-1625.	0.6	14
24	Crystallographic characterization of steel microstructure using neutron diffraction. Science and Technology of Advanced Materials, 2019, 20, 1189-1206.	2.8	14
25	Measurements of Volume Fraction and Carbon Concentration of the Retained Austenite by Neutron Diffraction. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2006, 92, 557-561.	0.1	14
26	Residual Thermal Phase Stresses in α-γ Fe-Cr-Ni Alloys Measured by a Neutron Diffraction Time-of-Flight Method. Materials Transactions, 2002, 43, 1696-1702.	0.4	13
27	Relationship between Sound Absorption Property and Microscopic Structure Determined by X-ray Computed Tomography in Urethane Foam Used as Sound Absorption Material for Automobiles. Materials Transactions, 2008, 49, 345-351.	0.4	13
28	Effect of Microscopic Internal Structure on Sound Absorption Properties of Polyurethane Foam by X-ray Computed Tomography Observations. Materials Transactions, 2009, 50, 373-380.	0.4	13
29	Multi-scaled heterogeneous deformation behavior of pearlite steel studied by in situ neutron diffraction. Scripta Materialia, 2017, 140, 45-49.	2.6	13
30	<i>In situ</i> Neutron Diffraction Study on Ferrite and Pearlite Transformations for a 1.5Mn-1.5Si-0.2C Steel. ISIJ International, 2018, 58, 2125-2132.	0.6	13
31	Effects of Applied Stress and Plastic Strain on γightleftarrowsε Martensitic Transformation in High Mn Alloy Polycrystals. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1990, 54, 628-634.	0.2	13
32	Upper and Lower Bounds in Flow Stress of a Dual Phase Steel Predicted by the Secant Method and Related Microstructures. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1997, 83, 827-832.	0.1	12
33	Microstructure and Deformation Behavior of Nitrogen Bearing Austenitic Steels Evaluated by Neutron Scattering Analyses. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2005, 91, 822-827.	0.1	11
34	Stress Corrosion Cracking Behavior at Inconel and Low Alloy Steel Weld Interfaces. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 6103-6117.	1.1	11
35	<i>In-situ</i> Observation of Dislocation Evolution in Ferritic and Austenitic Stainless Steels under Tensile Deformation by Using Neutron Diffraction. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2018, 104, 201-207.	0.1	11
36	Unusual Tempering Behavior of Feâ€“Crâ€“C Martensite. ISIJ International, 2015, 55, 686-690.	0.6	10

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37	Plastic Anisotropy in an Electrodeposited Pure Iron. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2002, 88, 801-807.	0.1	10
38	⁵⁷Fe Mössbauer Study of γ-FeMn and ε-FeMn Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 635-641.	0.2	9
39	Flow Stress Analysis using the Kocksâ€“Mecking Model for Ferriteâ€“Cementite Steels with Various Ferrite Grain Sizes. ISIJ International, 2008, 48, 1020-1025.	0.6	9
40	Monitoring of Bainite Transformation Using in Situ Neutron Scattering. Metals, 2016, 6, 16.	1.0	9
41	Effect of Predeformation on the TRIP Phenomenon in Austenitic Fe-Ni-C Alloys. Transactions of the Iron and Steel Institute of Japan, 1977, 17, 159-165.	0.2	8
42	Dynamic Recrystallization Behavior in Martensite in 18Ni, 17Ni-0.2C and SM490 Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2005, 91, 602-608.	0.1	8
43	Internal Stress and Strain Energy Yielded by γ→ε Martensitic Transformation in a Polycrystalline Ferrous Alloy. Materials Transactions, JIM, 2000, 41, 727-732.	0.9	7
44	High Tensile Strength of Low-Carbon Ferritic Steel Subjected to Severe Drawing. Materials Transactions, 2009, 50, 51-55.	0.4	7
45	Microstructure Control of a TiAl Base Alloy Prepared by Reactive-Sintering by Low Temperature HIP. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1996, 60, 1007-1012.	0.2	7
46	Enhancement of Shape Memory and Its Anisotropy by Training Treatment in an Fe-32Mn-6Si Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1997, 83, 389-394.	0.1	7
47	High Strain Rate Deformation Behaviour of Steels for Auto-Body. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2002, 88, 703-714.	0.1	7
48	Residual Elastic Strain Measurement in Heat-Treated SiC Whisker/A2014 Composite by Neutron Diffraction. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1996, 60, 56-64.	0.2	6
49	High Oxidation-resistance Coating for Steel by Using Aluminum and Titanium Powders. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2005, 91, 206-211.	0.1	6
50	Stress Partitioning Behavior of a DP Steel Studied by in situ Neutron Diffraction. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2011, 97, 209-211.	0.1	6
51	Quantitative Analysis of Cementite Spheroidization in Pearlite by Small-Angle Neutron Scattering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1731-1740.	1.1	6
52	Multi-scaled Heterogenetity and Influence of Texture on Plastic Flow of Pearlite Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2005, 91, 816-821.	0.1	6
53	Plane bending fatigue behavior of interstitial-free steel at room temperature. International Journal of Materials Research, 2006, 97, 1559-1565.	0.1	5
54	Hydrogen Behavior in an Ultrafine-Grained Electrodeposited Pure Iron. ISIJ International, 2011, 51, 1534-1538.	0.6	5

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55	Mechanism of Improved Ductility of 1500 MPa-class Ultra-high Strength Cold-rolled Steel Sheet Produced by Rolling and Partitioning Method. ISIJ International, 2020, 60, 2097-2106.	0.6	5
56	Fabrication of Ti/Ti₅Si₃ Functionally Graded Material by Eutectic Bonding Method. Materials Transactions, JIM, 1997, 38, 650-652.	0.9	4
57	Stress Partitioning and Deformation Induced Martensitic Transformation for TRIP-DP Steels Studied by In Situ Neutron Diffraction. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 501-506.	0.2	4
58	Anodic Polarization Behavior and Pitting Potentials of High Nitrogen Bearing 18Mn-18Cr Austenitic Steels. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1997, 61, 216-224.	0.2	4
59	Formation of Oriented Lamellar Colonies in a TiAlMn Alloy Produced by a Reactive Sintering. Materials Transactions, JIM, 1999, 40, 1032-1037.	0.9	3
60	Surface Modification of Carbon Steel and Tool Steel by Auminizing with Powder Liquid Coating and Plasma Nitriding. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2005, 91, 212-216.	0.1	3
61	Bulky Averaged Microscopic Information for ECAP-Processed Cu Using Accelerator-Based Gamma-Ray-Induced Positron Annihilation Spectroscopy and Neutron Diffraction. Materials Transactions, 2013, 54, 1562-1569.	0.4	3
62	Microstructural Changes by Annealing in Ultrafine-Grained Electrodeposited Pure Iron. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 990-1000.	1.1	3
63	Residual Stress Measurements by X-ray and Neutron Diffractions in Heat-Treated SiCw/A2014 Composites. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 261-266.	0.2	3
64	New Method for Estimating the Effective Thermal Conductivity of Composite Materials from the Optical Micrograph Data. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1996, 60, 679-684.	0.2	2
65	Thermal Conductivities of SUS304/PSZ Composite Materials. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1996, 82, 789-794.	0.1	2
66	Anisotropy in Strength of a TiAl Base Polycrystal with Unidirectionally Oriented Lamellae. Materials Transactions, JIM, 2000, 41, 1287-1292.	0.9	2
67	Mechanism of Improved Ductility of 1,500 MPa-class Ultra-high Strength Cold-rolled Steel Sheet Produced by Rolling and Partitioning Method. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 154-164.	0.1	2
68	Microstructural Control for Superplasticity Simply by Heat Treatment without Thermomechanical Processing in a Ti-46Al-3.5Cr Alloy.. ISIJ International, 2000, 40, 1041-1047.	0.6	2
69	Effect of Nitrogen Addition on Localized Corrosion Behavior in SUS316L Stainless Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1998, 84, 516-521.	0.1	2
70	Residual Stress Measurement by Neutron Diffraction inside a Steel Bar Quenched after Induction Heating. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2004, 90, 1038-1042.	0.1	2
71	Dislocation Characteristics of Martensitic Steel Studied by In-Situ Neutron Diffraction Experiment. , 2015, , .		1
72	On the Fatigue Strength of Steels Composed of Two Ductile Phases. Transactions of the Iron and Steel Institute of Japan, 1978, 18, 251-260.	0.2	1

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73	Fatigue strength and fracture behavior of steels with and without interstitial carbon at room temperature in air. International Journal of Materials Research, 2007, 98, 209-216.	0.1	1
74	Estimation of CO₂ Emission during Thermo-mechanical Process and Eco-steel Design of a Mn-Si-C Steel by Microstructural Control. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2000, 86, 196-202.	0.1	1
75	Plane bending fatigue behavior of interstitial-free steel at room temperature. International Journal of Materials Research, 2022, 97, 1559-1565.	0.1	1
76	Deformation Behavior of an Austempered Ductile Cast Iron Studied by Neutron Diffraction. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2008, 74, 377-383.	0.2	0
77	Deformation Behaviors of Aluminum Alloys for Automobile Parts Studied by Neutron Diffraction. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2008, 74, 384-390.	0.2	0
78	Improvement of Tensile Properties by Microstructural Control for Ultrafine-Grained Multi-Phase Steels. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 761-766.	0.2	0
79	High-temperature Corrosion Behavior of Heat-resistant Cast Alloys in a Low-grade Fuel Firing Boiler Ash Environment. Zairyo To Kankyo/ Corrosion Engineering, 2015, 64, 132-138.	0.0	0
80	Quantitative Evaluation of Texture and Dislocations during Annealing after Hot Deformation in Austenitic Steel Using Neutron Diffraction. Materials Science Forum, 0, 905, 25-30.	0.3	0
81	Unusual Plastic Deformation Behavior in Lath Martensitic Steel Containing High Dislocation Density. Materials Science Forum, 0, 905, 46-51.	0.3	0
82	711 Compression behavior of Cementite and Cementite-Ferrite steel produced by mechanical alloying method. The Proceedings of Ibaraki District Conference, 2000, 2000, 201-202.	0.0	0
83	403 Analysis of Stress and Strain Energy Yielded by Martensitic Transformation. The Proceedings of Ibaraki District Conference, 2000, 2000, 95-96.	0.0	0
84	Compromise between environmental burdens and performance in strengthening steels.. Journal of Advanced Science, 2001, 13, 269-272.	0.1	0
85	Analysis of Internal Stress Distribution and Strain Energy Yielded by Î³â†'Îµ Martensitic Transformation in a High Mn Ferrous Alloy. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2002, 2002, 281-282.	0.0	0
86	High-temperature deformation of Cementite produced by mechanical alloying method. The Proceedings of Ibaraki District Conference, 2002, 2002, 129-130.	0.0	0
87	OS04W0082 Anisotropic residual stresses in a pearlitic steel after tensile deformation. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003.2, _OS04W0082-_OS04W0082.	0.0	0
88	OS4(4)-17(OS04W0082) Anisotropic Residual Stresses in a Pearlitic Steel after Tensile Deformation. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003, 199.	0.0	0
89	Microstructure of Hardened Layer Obtained by Plasma Nitridation of Aluminized High Purity Iron. Materia Japan, 2005, 44, 961-961.	0.1	0
90	Study on Thermo-mechanically Controlled Processing of Steel using Neutron Diffraction. Hamon, 2014, 24, 40-44.	0.0	0

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91	Fatigue Strength of Steels Composed of Two Phases. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1977, 63, 962-970.	0.1	0
92	Deformation Behavior in Compression in an FCC/BCC Laminated Fe-Cr-Ni Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1989, 75, 1703-1710.	0.1	0
93	Fabrication of Ti/Ti₃Sn Functionally Graded Material by Eutectic Bonding Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1997, 61, 759-764.	0.2	0
94	Ti/Ti₃Sn Functionally Graded Coating by Reaction Diffusion and Eutectic Reaction. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 992-998.	0.2	0
95	Microstructure and Residual Strain Distribution in Cast Duplex Stainless Steel Studied by Neutron Imaging. , 2015, , .		0
96	Characterization of Microstructures and Elasto-plastic Deformation Behavior of Metals and Alloys Using Neutron Beam (1) —Targets and Methods of Measurements—. Materia Japan, 2017, 56, 14-19.	0.1	0
97	Characterization of Microstructures and Elasto-plastic Deformation Behavior of Metals and Alloys Using Neutron Beam (2) —In Situ Measurements of Microstructure Evolution during Material Processing—. Materia Japan, 2017, 56, 70-75.	0.1	0
98	Characterization of Microstructures and Elasto-plastic Deformation Behavior of Metals and Alloys using Neutron Beam (3) —In-situ Measurements during Elasto-plastic Deformation—. Materia Japan, 2017, 56, 296-301.	0.1	0
99	In situ Neutron Diffraction on Ferrite and Pearlite Transformations for a 1.5Mn-1.5Si-0.2C Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 262-271.	0.1	0