Takao Takeuchi

List of Publications by Year
in descending order

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78	784	623574 14	610775 24
papers	citations	h-index	g-index

78	78	78	277
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nb3Al conductors for high-field applications. Superconductor Science and Technology, 2000, 13, R101-R119.	1.8	164
2	Development of advanced Nb3Al superconductors for a fusion demo plant. Nuclear Fusion, 2005, 45, 431-438.	1.6	40
3	Cu Stabilized $hbox{Nb}_{3}hbox{Al}$ Strands for the High Field Accelerator Magnet. IEEE Transactions on Applied Superconductivity, 2008, 18, 1026-1030.	1.1	37
4	Mechanical properties of molybdenum neutron-irradiated at a high temperature. Journal of Nuclear Materials, 1981, 99, 25-37.	1.3	31
5	Characteristics of Round and Extracted Strands of ${hbox{Nb}}_{3}hbox{Al}$ Rutherford Cable. IEEE Transactions on Applied Superconductivity, 2007, 17, 2697-2701.	1.1	25
6	Feasibility Study of ${m Nb}_{3}{m Al}$ Rutherford Cable for High Field Accelerator Magnet Application. IEEE Transactions on Applied Superconductivity, 2007, 17, 1461-1464.	1.1	25
7	Fundamental studies for the application of quench protection systems based on an active power method for cryocooled LTS coils. Cryogenics, 2008, 48, 148-153.	0.9	21
8	Quench Tests of ${m Nb}_{3}{m Al}$ Small Racetrack Magnets. IEEE Transactions on Applied Superconductivity, 2008, 18, 1039-1042.	1.1	17
9	Neutron irradiation effects on superconducting wires and insulating materials. Fusion Engineering and Design, 2009, 84, 1425-1428.	1.0	17
10	A new RHQT Nb₃Al superconducting wire with a Ta/Cu/Ta three-layer filament-barrier structure. Superconductor Science and Technology, 2012, 25, 065016.	1.8	17
11	Optimization of the TRUQ (Transformation-heat-based up-quenching) method for Nb3Al superconductors. Superconductor Science and Technology, 2002, 15, 519-525.	1.8	16
12	High-field installations at the tsukuba magnet laboratories of NRIM. Physica B: Condensed Matter, 1995, 211, 17-22.	1.3	15
13	Superconducting properties and microstructure of MgB2wires synthesized with a low-temperature diffusion process. Superconductor Science and Technology, 2007, 20, 1178-1183.	1.8	15
14	Characterization of ${m Nb}_{3}{m Al}$ Strands Subjected to an Axial-Strain for a Fusion DEMO Reactor. IEEE Transactions on Applied Superconductivity, 2009, 19, 1540-1543.	1.1	15
15	Development of Ta-matrix ${m Nb}_{3}{m Al}$ Strand and Cable for High-Field Accelerator Magnet. IEEE Transactions on Applied Superconductivity, 2011, 21, 2521-2524.	1.1	15
16	Possible Pining Centers in Transformation-Processed ${m Nb}_{3}{m Al}$ Superconductors. IEEE Transactions on Applied Superconductivity, 2012, 22, 6001504-6001504.	1.1	15
17	Design of a High Field ${m Nb}_{3}{m Al}$ Common Coil Magnet. IEEE Transactions on Applied Superconductivity, 2010, 20, 176-179.	1.1	13
18	Fabrication and superconducting properties of PIT-V3Ga mono-cored wires using high Ga content Cuâ€“Ga compound powders. Superconductor Science and Technology, 2007, 20, 569-573.	1.8	12

#	Article	IF	Citations
19	Strand and Cable Development for a High Field ${m Nb}_{3}{m Al}$ Common Coil Magnet. IEEE Transactions on Applied Superconductivity, 2010, 20, 1428-1431.	1.1	12
20	Microstructural Observation of Transformed <formula formulatype="inline"><tex Notation="TeX">$ hbox{Nb}_{3}hbox{Al}$</tex></formula> Superconductors Using TEM and Atom Probe Tomography. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-4.	1.1	12
21	Enhancement of Electrical Conductivity of Copper/Carbon-Nanotube Composite Wire. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2009, 73, 651-658.	0.2	10
22	Residual strain dependence on the matrix structure in RHQ-Nb₃Al wires by neutron diffraction measurement. Superconductor Science and Technology, 2012, 25, 065021.	1.8	10
23	Observation of A15 phase transformation in RHQ-Nb3Al wire by neutron diffraction at high-temperature. Journal of Alloys and Compounds, 2012, 535, 124-128.	2.8	10
24	Microstructure and Superconducting Properties of Nb₃Al Multifilamentary Wires Processed by Nb-Tube Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1991, 55, 472-480.	0.2	9
25	Design, fabrication and installation of cryogenic target system for 14MeV neutron irradiation on superconducting magnet materials. Fusion Engineering and Design, 2005, 75-79, 173-177.	1.0	9
26	Characteristics of Cu Stabilized ${m Nb}_{3}{m Al}$ Strands With Low Cu Ratio. IEEE Transactions on Applied Superconductivity, 2009, 19, 2678-2681.	1.1	9
27	Comparison Between ${hbox {Nb}}_{3}{hbox {Al}}$ and ${hbox {Nb}}_{3}{hbox {Sn}}$ Strands and Cables for High Field Accelerator Magnets. IEEE Transactions on Applied Superconductivity, 2010, 20, 1399-1403.	1.1	9
28	Tensile strain dependence of critical current of RHQ-Nb3Al wires. Cryogenics, 2012, 52, 805-809.	0.9	9
29	Test Results of a Nb₃Al/Nb₃Sn Subscale Magnet for Accelerator Application. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	9
30	Test operation of superconductive part in 40 tesla class hybrid magnet system. Cryogenics, 1994, 34, 717-720.	0.9	8
31	Multifilamentary Nb/Alâ€“Ge and Nb/Alâ€“Si precursor fabrication using the intermediately rapid heating and quenching technique. Superconductor Science and Technology, 2004, 17, 320-326.	1.8	8
32	Development of Long-length Rapid-Heating, Quenching and Transformation (RHQT) Processed Nb3Al Conductors. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2004, 68, 616-623.	0.2	8
33	A New Wire Fabrication Processing Using High Ga Content Cu-Ga Compound in V3Ga Compound Superconducting Wire. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 959-965.	0.2	7
34	Change in properties of superconducting magnet materials by fusion neutron irradiation. Fusion Engineering and Design, 2007, 82, 1555-1560.	1.0	7
35	Development of Ta-Matrix ${m Nb}_{3}{m Al}$ Wire for Next-Generation Accelerator Magnet. IEEE Transactions on Applied Superconductivity, 2009, 19, 2674-2677.	1.1	7
36	Microstructural Observation of ITER $hbox{Nb}_{3}hbox{Sn}$ Strands Under Bending Strain. IEEE Transactions on Applied Superconductivity, 2010, 20, 1455-1458.	1.1	7

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37	Structural Change on the Magnetic Field-Induced Insulator-to-Metal Transition in Distorted Perovskite Eu0.6Sr0.4MnO3. Journal of the Physical Society of Japan, 2004, 73, 3059-3063.	0.7	6
38	The fabrication of a V-based Laves phase compound superconductor through a rapid heating and quenching process. Superconductor Science and Technology, 2004, 17, 1031-1036.	1.8	6
39	Quench Tests and FEM Analysis of ${m Nb}_{3}{m Al}$ Rutherford Cables and Small Racetrack Magnets. IEEE Transactions on Applied Superconductivity, 2009, 19, 1116-1120.	1.1	6
40	New Ti-Sn Intermetallic Compound and $({hbox {Nb}},{hbox {Ti}})_{3}{hbox {Sn}}$ Conductor. IEEE Transactions on Applied Superconductivity, 2009, 19, 2556-2559.	1.1	6
41	Study on neutron irradiation effect of superconductors and installation of 15.5T magnet in hot laboratory at IMR in Tohoku University. Journal of Nuclear Materials, 2011, 417, 842-845.	1.3	6
42	A new facility for investigation on neutron irradiation effect on superconducting properties of Nb3Sn strand for fusion magnet. Fusion Engineering and Design, 2013, 88, 1551-1554.	1.0	6
43	Improvement of High-Field Performance in Diffusion-Processed Superconducting V₃Ga. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1985, 49, 784-791.	0.2	6
44	Magnetic field induced phase transition in distorted perovskite Eu0.6Sr0.4MnO3. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 424-425.	1.0	5
45	Development of Fine Multifilamentary ${m Nb}_{3}{m Al}$ Conductors. IEEE Transactions on Applied Superconductivity, 2009, 19, 2657-2660.	1.1	5
46	R&D Efforts Towards High Field Accelerator Magnets at KEK. IEEE Transactions on Applied Superconductivity, 2012, 22, 4003205-4003205.	1.1	5
47	Development of Ag-Barrier RHQT Nb₃Al Wires. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	5
48	Present Status of the High-Field Research Center at the National Research Institute for Metals, Japan. , 1994, , 419-428.		5
49	Structure and High-Field Performance of Nb₃Sn Superconductors Prepared from Ta-Sn Core. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2002, 66, 223-228.	0.2	5
50	Influence of Nb/Al Composition on the Microstructure and Superconducting Properties of RHQT-processed Nb3Al Wire.. TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	5
51	Microstructure and superconductivity of V-based Laves-phase superconductor tape synthesized by a rapidly-heating/quenching process. Journal of Nuclear Materials, 2004, 329-333, 1580-1584.	1.3	4
52	Nuclear technology and potential ripple effect of superconducting magnets for fusion power plant. Fusion Engineering and Design, 2006, 81, 1675-1681.	1.0	4
53	Recent R&D on Superconducting Wires for High-Field Magnet. Materials Science Forum, 0, 783-786, 2081-2090.	0.3	4
54	Current Activities in the Interactive Joint Research at Tohoku University - Advanced Evaluation of Radiation Effects on Fusion Materials -. Plasma and Fusion Research, 2014, 9, 3405136-3405136.	0.3	3

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55	Three-dimensional structural analysis for crystal defects in phase-transformed Nb₃Al. IEEE Transactions on Applied Superconductivity, 2015, , 1-1.	1.1	3
56	Structure and High-Field Performance of (Nb, Ta)3Sn Superconducting Wires Prepared form Sn-Ta Sheets. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2004, 68, 624-628.	0.2	2
57	Fabrication of Nb3Al Wires by the Clad-Chip Extrusion Method and the Rapid-Heating, Quenching and Transformation Treatment and Their Superconducting Properties. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2004, 68, 629-635.	0.2	2
58	New Fabrication Process for ${hbox{Nb}}_{3}{hbox{Sn}}$ Conductors Through Diffusion Reaction Between Nb and Ag-Sn Alloys. IEEE Transactions on Applied Superconductivity, 2007, 17, 2580-2583.	1.1	2
59	Feasibility Studies of 0.7 mm $hbox{Nb}_{3}hbox{Al}$ Strands and Rutherford Cable. IEEE Transactions on Applied Superconductivity, 2013, 23, 6001404-6001404.	1.1	2
60	Stability Test of RHQT Nb3Al Cable-in-conduit Conductor. TEION KOGAKU (Journal of Cryogenics and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	2
61	Microstructural observation of Nb3Al multifilamentary superconducting wires. Journal of Materials Science, 1993, 28, 942-948.	1.7	1
62	The conversion of the bronze matrix into the stabilizing Cu in Nb3Sn wires. Cryogenics, 2005, 45, 645-652.	0.9	1
63	Optimization of Operating Conditions for a RHQT (Rapid-Heating, Quenching and Transformation) Processed Nb3Al Superconductors. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 952-958.	0.2	1
64	Fundamental Studies for the Application of Quench Protection Systems Based on an Active Power Method for Cryocooled LTS Coils. TEION KOGAKU (Journal of Cryogenics and Superconductivity) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	0.1	1
65	Structure and High-Field Performance of New ${hbox {Nb}}_{3}{hbox {Sn}}$ Wires Fabricated From Sn-Based Alloys. IEEE Transactions on Applied Superconductivity, 2009, 19, 2584-2587.	1.1	1
66	Structure and Performance of Nb3Sn Superconducting Wires Prepared from Sn-Based Alloy Sheets. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2010, 74, 460-466.	0.2	1
67	Production and Operation of a 15 T ${m Nb{hbox{-}}Ti/Nb}_{3}{m Al}$ Hybrid Magnet System Powered by a Single Power Supply. IEEE Transactions on Applied Superconductivity, 2010, 20, 616-619.	1.1	1
68	Effects of Joule-heating Electrode-spacing on the Superconducting Properties of RHQT-Nb 3 Al Wire. TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan), 2012, 47, 534-541.	0.1	1
69	Critical Transport Current Properties in the High-temperature Region of Cu added MgB2 Wire using a Mg2Cu Compound as the Additional Source Material. TEION KOGAKU (Journal of Cryogenics and) Tj ETQq1 1 0.784314 rgBT /Overlock	0.1	1
70	Studies on Jelly Roll Processed Nb3Sn Superconducting Wires Using Sn-Ta and Sn-Ti Based Alloy Sheets. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 946-951.	0.2	0
71	Fabrication of Superconducting Alloy Wires by Clad-Chip Extrusion Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 966-971.	0.2	0
72	Superconducting Properties of ${m Nb}_{3}{m Sn}$ Wire Fabricated by Diffusion Reaction Between Ag-Sn-Mg Alloy and Nb. IEEE Transactions on Applied Superconductivity, 2009, 19, 2552-2555.	1.1	0

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73	New Superconducting Test Facility in Radiation Control Area for Neutron Irradiation Study. IEEE Transactions on Applied Superconductivity, 2012, 22, 4803904-4803904.	1.1	0
74	Effect of Thermal Cycle on the Lattice Structure in $ hbox{RHQ-Nb}_{3}hbox{Al}$ Superconducting Wire. IEEE Transactions on Applied Superconductivity, 2013, 23, 6000704-6000704.	1.1	0
75	Structure and Superconducting Performance of (Nb, Ta)₃Sn Tapes Prepared from Ta Hydride. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2003, 67, 436-439.	0.2	0
76	The Conversion of the Bronze Matrix into the Stabilizing Cu in Nb3Sn Wires. TEION KOGAKU (Journal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
77	Researches on high-field (Nb,Ta)3Sn superconducting wires prepared from Jelly Roll process. Journal of Advanced Science, 2006, 18, 179-184.	0.1	0
78	Development of New PIT Process using High Ga Content Compound in V 3 Ga Superconducting Wire. TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan), 2012, 47, 495-502.	0.1	0