

Tsuyoshi Tamegai

List of Publications by Year in descending order

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95
papers

2,904
citations

172457

29
h-index

175258

52
g-index

95
all docs

95
docs citations

95
times ranked

2041
citing authors

#	ARTICLE	IF	CITATIONS
1	'Inverse' melting of a vortex lattice. Nature, 2001, 411, 451-454.	27.8	262
2	Imaging the vortex-lattice melting process in the presence of disorder. Nature, 2000, 406, 282-287.	27.8	212
3	Multiple topological states in iron-based superconductors. Nature Physics, 2019, 15, 41-47.	16.7	170
4	A one-dimensional chain state of vortex matter. Nature, 2001, 414, 728-731.	27.8	169
5	Transport properties governed by surface barriers in Bi ₂ Sr ₂ CaCu ₂ O ₈ . Nature, 1998, 391, 373-376.	27.8	126
6	Suppression of the critical temperature of superconducting $Ba_{1-x}K_xFe_2As_2$. Physical Review B, 2010, 82, .	3.2	118
7	Possible Superconductivity above 25 K in Single-Crystalline Co-Doped BaFe ₂ As ₂ . Journal of the Physical Society of Japan, 2009, 78, 023702.	1.6	97
8	Effects of particle irradiations on vortex states in iron-based superconductors. Superconductor Science and Technology, 2012, 25, 084008.	3.5	95
9	Dynamics and mechanism of oxygen annealing in Fe _{1+y} Te _{0.6} Se _{0.4} single crystal. Scientific Reports, 2014, 4, 4585.	3.3	79
10	Growth and characterization of n-type electron-induced ferromagnetic semiconductor (In,Fe)As. Applied Physics Letters, 2012, 101, .	3.3	78
11	Critical current density, vortex dynamics, and phase diagram of single-crystal FeSe. Physical Review B, 2015, 92, .	3.2	65
12	Enhancement of critical current density and vortex activation energy in proton-irradiated Co-doped $BaFe_2As_2$. Physical Review B, 2012, 86, .	3.2	62
13	Improvements of fabrication processes and enhancement of critical current densities in (Ba,K)Fe ₂ As ₂ HIP wires and tapes. Superconductor Science and Technology, 2018, 31, 055016.	3.5	59
14	Multiband effects and possible Dirac fermions in $Fe_{1-x}Te_x$. Physical Review B, 2014, 89, .	3.2	64
15	Domain Meissner state and spontaneous vortex-antivortex generation in the ferromagnetic superconductor EuFe ₂ (As _{0.79} P _{0.21}) ₂ . Science Advances, 2018, 4, eaat1061.	10.3	54
16	Critical current density and vortex dynamics in pristine and proton-irradiated Ba _{0.6} K _{0.4} Fe ₂ As ₂ . Superconductor Science and Technology, 2015, 28, 085003.	3.5	52
17	Enhancement of critical current densities in (Ba,K)Fe ₂ As ₂ wires and tapes using HIP technique. Superconductor Science and Technology, 2016, 29, 115002.	3.5	48
18	Review of annealing effects and superconductivity in Fe _{1+y} Te _{1-x} Se _x superconductors. Superconductor Science and Technology, 2019, 32, 103001.	3.5	45

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19	Linking effects induced by 3-MeV proton irradiation in $\text{BaKFeAsO}_{1-x}\text{F}_x$ single crystals. Physical Review B, 2019, 99, .	3.2	43
20	Large and significantly anisotropic critical current density induced by planar defects in $\text{CaKFe}_4\text{As}_2$ single crystals. Physical Review B, 2019, 99, .	3.2	42
21	Large, Homogeneous, and Isotropic Critical Current Density in Oxygen-Annealed $\text{Fe}_{1+y}\text{Te}_{0.6}\text{Se}_{0.4}$ Single Crystal. Applied Physics Express, 2013, 6, 043101.	2.4	39
22	Two Types of Multistack Structures in MgB ₂ -Type Superconductor CaAlSi. Journal of the Physical Society of Japan, 2006, 75, 043713.	1.6	38
23	Effects of drawing and high-pressure sintering on the superconducting properties of $(\text{Ba,K})\text{Fe}_2\text{As}_2$ powder-in-tube wires. Superconductor Science and Technology, 2015, 28, 125014.	3.5	38
24	Influence of interstitial Fe to the phase diagram of $\text{Fe}_{1+y}\text{Te}_{1-x}\text{Se}_x$ single crystals. Scientific Reports, 2016, 6, 32290.	3.3	35
25	Enhancement of critical current densities by high-pressure sintering in $(\text{Sr,K})\text{Fe}_2\text{As}_2$ PIT wires. Superconductor Science and Technology, 2014, 27, 095002.	3.5	34
26	Possible Sign-Reversing d -Wave Superconductivity in Co-Doped BaFe_2As_2 Proved by Thermal Transport Measurements. Journal of the Physical Society of Japan, 2009, 78, 073705.	1.6	33
27	Bulk and Local Magnetic Properties of Iron-Based Oxypnictide Superconductor $\text{SmFeAsO}_{1-x}\text{F}_x$. Journal of the Physical Society of Japan, 2008, 77, 54-57.	1.6	32
28	Quasiparticle Evidence for the Nematic State above T_c in FeSe	7.8	32
29	Gap structure of FeSe determined by angle-resolved specific heat measurements in applied rotating magnetic field. Physical Review B, 2017, 96, .	3.2	29
30	Evolution of Superconductivity in $\text{Fe}_{1+y}\text{Te}_{1-x}\text{Se}_x$ Annealed in Te Vapor. Journal of the Physical Society of Japan, 2013, 82, 093705.	1.6	25
31	Superconducting properties and magneto-optical imaging of $\text{Ba}_{0.6}\text{K}_{0.4}\text{Fe}_2\text{As}_2$ PIT wires with Ag addition. Superconductor Science and Technology, 2012, 25, 035019.	3.5	24
32	Enhancement of critical current density and mechanism of vortex pinning in H^+ -irradiated FeSe single crystal. Applied Physics Express, 2015, 8, 113102.	2.4	23
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37	Enhancement of Critical Current Densities in (Ba,K)Fe ₂ As ₂ by 320 MeV Au Irradiation in Single Crystals and by High-Pressure Sintering in Powder-in-Tube Wires. Applied Physics Express, 2013, 6, 123101.	2.4	21
38	Fabrication of small superconducting coils using (Ba,A)Fe ₂ As ₂ (A: Na, K) round wires with large critical current densities. Superconductor Science and Technology, 2021, 34, 105008.	3.5	21
39	Enhancement of critical current density in (Ba,Na)Fe ₂ As ₂ round wires using high-pressure sintering. Superconductor Science and Technology, 2020, 33, 065001.	3.5	20
40	Bulk Superconductivity in Fe _{1+y} Te _{1-x} Se _x Induced by Annealing in Se and S Vapor. Journal of the Physical Society of Japan, 2013, 82, 115002.	1.6	17
41	Evolution of superconducting and transport properties in annealed FeTe _{1-x} Se _x (0.1 ≤ x ≤ 0.4) multiband superconductors. Superconductor Science and Technology, 2015, 28, 044002.	3.5	17
42	Effects of heavy-ion irradiation on FeSe. Physical Review B, 2017, 95, .	3.2	17
43	Symmetry-unprotected nodes or gap minima in the s ₊₊ state of monocrystalline FeSe. Physical Review B, 2017, 96, .	3.2	17
44	Scaling laws for ion irradiation effects in iron-based superconductors. Scientific Reports, 2021, 11, 5818.	3.3	17
45	Penetration Depth and Quasiparticle Conductivity of Co- and K-Doped BaFe ₂ As ₂ Crystals, Investigated by a Microwave Coplanar Resonator Technique. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	16
46	Anisotropic physical properties and large critical current density in KCa_2FeAs_2 single crystal. Physical Review Materials, 2020, 4, .	2.4	16
47	Enhancement of transport critical current density of SmFeAsO _{1-x} F _x tapes fabricated by an <i>ex-situ</i> powder-in-tube method with a Sn-presintering process. Applied Physics Letters, 2014, 104, .	3.3	15
48	Twofold role of columnar defects in iron based superconductors. Superconductor Science and Technology, 2020, 33, 094012.	3.5	15
49	Developments of (Ba,Na)Fe ₂ As ₂ and CaKFe ₄ As ₄ HIP round wires. Superconductor Science and Technology, 2020, 33, 104001.	3.5	14
50	Quasiparticle scattering in 3 MeV proton irradiated $BaFe_2As_2$		

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55	Two-gap superconductivity in $R_2Fe_3Si_5$ ($R=Lu, Sc$) and $Sc_5Ir_4Si_{10}$. Science and Technology of Advanced Materials, 2008, 9, 044206.	6.1	11
56	Promising critical current density characteristics of Ag-sheathed $(Sr,Na)Fe_2As_2$ tape. Applied Physics Express, 2018, 11, 063101.	2.4	11
57	Deviation from Canonical Collective Creep Behavior in $Li_{0.8}Fe_{0.2}OHFeSe$. Journal of the Physical Society of Japan, 2019, 88, 034703.	1.6	11
58	Effects of Pnictogen Atmosphere Annealing on $Fe_{1+y}Te_{0.6}Se_{0.4}$. Journal of the Physical Society of Japan, 2016, 85, 024712.	1.6	10
59	Achieving the depairing limit along the c axis in $Fe_{1+y}Te_{1-x}Se_x$ single crystals. Physical Review B, 2020, 101, .	3.2	10
60	Elucidating the origin of planar defects that enhance critical current density in $CaKFe_4As_4$ single crystals. Superconductor Science and Technology, 2021, 34, 034003.	3.5	10
61	Surface Structure and Superconductivity in $Ba(Fe_{0.93}Co_{0.07})_2As_2$ Probed by Scanning Tunneling Microscopy/Spectroscopy. Journal of the Physical Society of Japan, 2011, 80, 014710.	1.6	9
62	Field-driven transition in the $BaKFe_2As_2$ superconductor with splayed columnar defects. Physical Review B, 2018, 97, .	3.3	9
63	Demonstration of Excellent J_c Performance in $(AE)Fe_2As_2$ ($AE: Sr, Ba$) PIT Wires. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	9
64	Trapping a magnetic field of 17.89 T in stacked coated conductors by suppression of flux jumps. Superconductor Science and Technology, 2022, 35, 02LT01.	3.5	9
65	Comparative study of superconducting and normal-state anisotropy in $Fe_{1-x}Te_{1-y}Se_{x+y}$. Instability of vortex-antivortex interfaces in optimally doped $Ba(Fe_{1-x}Te_{1-y}Se_{x+y})_2$. Overlock 10 Tf 50 327 Td	3.2	7
66		3.2	7
67	Anisotropies and Homogeneities of Superconducting Properties in Iron-Platinum-Arsenide $Ca_{10}(Pt_3As_8)(Fe_{1.79}Pt_{0.21}As_2)_5$. Journal of the Physical Society of Japan, 2012, 81, 114723.	3.5	7
68	Magneto-optical characterizations of $FeTe_{0.5}Se_{0.5}$ thin films with critical current density over 1 MA cm^{-2} . Superconductor Science and Technology, 2015, 28, 015010.	3.5	7
69	Reemergence of superconductivity by 4d transition-metal Pd doping in over-doped 112-type iron pnictide superconductors $Ca_{0.755}La_{0.245}FeAs_2$. New Journal of Physics, 2019, 21, 093015.	2.9	7
70	Fabrications and evaluations of critical current density of $(Ba,Na)Fe_2As_2$ HIP round wires. Physica C: Superconductivity and Its Applications, 2020, 568, 1353580.	1.2	6
71	Trapping a magnetic field of 14.8 T using stacked coated conductors of 12 mm width. Superconductor Science and Technology, 2021, 34, 065004.	3.5	6
72	Anisotropic Superconducting Properties of MgB_2 and Related Compounds. Journal of Low Temperature Physics, 2003, 131, 1153-1157.	1.4	5

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73	Optimization of Deposition Conditions to Grow High-Quality FeSe/Te Thin Films. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	5
74	Fabrication and Characterization of (Ba,Na)Fe ₂ As ₂ Wires and Tapes. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	5
75	Effects of Asymmetric Splayed Columnar Defects on the Anomalous Peak Effect in Ba _{0.6} K _{0.4} Fe ₂ As ₂ . Journal of the Physical Society of Japan, 2020, 89, 094705.	1.6	5
76	Suppression of Superconductivity in Heavy-ion Irradiated 2H-NbSe ₂ Caused by Negative Pressure. Journal of the Physical Society of Japan, 2022, 91, .	1.6	5
77	Specific Heat and Upper Critical Field of Sc ₅ Ir ₄ Si ₁₀ Superconductor. Journal of the Physical Society of Japan, 2013, 82, 074713.	1.6	4
78	Effects of high-pressure sintering on critical current density in Co-doped BaFe ₂ As ₂ wires. Physica C: Superconductivity and Its Applications, 2014, 504, 73-76.	1.2	4
79	Effects of Iodine Annealing on Fe _{1+y} Te _{0.6} Se _{0.4} . Journal of the Physical Society of Japan, 2016, 85, 104714.	1.6	4
80	Effects of 6 MeV proton irradiation on the vortex ensemble in BaFe ₂ As ₂ revealed through μSR. Physical Review B, 2020, 101, .	3.2	4
81	Effect of Controlled Artificial Disorder on the Magnetic Properties of EuFe ₂ (As _{1-x} P _x) ₂ Ferromagnetic Superconductor. Materials, 2021, 14, 3267.	2.9	4
82	High-Frequency ac Susceptibility of Iron-Based Superconductors. Materials, 2022, 15, 1079.	2.9	4
83	NMR Study of Two-Gap Superconductivity in Lu ₂ Fe ₃ Si ₅ . Journal of the Physical Society of Japan, 2013, 82, 064705.	1.6	3
84	Recent Progress of Iron-Based Superconducting Round Wires. Journal of Physics: Conference Series, 2019, 1293, 012042.	0.4	3
85	Low-field vortex melting in a single crystal of Ba _{0.6} K _{0.4} Fe ₂ As ₂ . Physical Review B, 2020, 101, .	3.2	3
86	Complex vortex-antivortex dynamics in the magnetic superconductor EuFe ₂ As ₂ . Physical Review B, 2022, 105, .	3.2	3
87	Superconducting Double Transition in PrOs ₄ Sb ₁₂ Probed by Local Magnetization Measurements and Magneto-Optical Imaging. Journal of the Physical Society of Japan, 2008, 77, 327-329.	1.6	2
88	Manipulating superconducting phases via current-driven magnetic states in rare-earth-doped CaFe ₂ As ₂ . NPC Asia Materials, 2018, 10, 156-162.	7.9	2
89	Fully gapped superconductivity without sign reversal in the topological superconductor PbTaSe ₂ . Physical Review B, 2020, 102, .	3.2	2
90	Critical Current Density and Vortex Dynamics in Pristine and Irradiated KCa ₂ Fe ₄ As ₄ F ₂ . Materials, 2021, 14, 5283.	2.9	2

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91	Vortex Phase Diagram of Crossing-Lattices State in Bi ₂ Sr ₂ CaCu ₂ O _{8+y} . Journal of Low Temperature Physics, 2003, 131, 1003-1007.	1.4	1
92	Local Field Measurements in PrOs ₄ Sb ₁₂ with Broken Time-Reversal Symmetry. AIP Conference Proceedings, 2006, , .	0.4	1
93	Effects of 250 MeV Au-ion Irradiation on the Superconducting Properties of Ba _{1-x} K _x Fe ₂ As ₂ Single Crystals. MRS Advances, 2016, 1, 3447-3458.	0.9	1
94	Imaging the effect of drive on the low-field vortex melting phenomenon in a Ba _{0.6} K _{0.4} Fe ₂ As ₂ single crystal. Physical Review B, 2020, 101, .	3.2	1
95	Correlation Of The Superconductivity With The Multi-Stack Structure In MgB ₂ -Type Superconductor CaAlSi. AIP Conference Proceedings, 2006, , .	0.4	0