Alexey V Pan

List of Publications by Year
in descending order

134	2,136	257450 24	265206 42
papers	citations	h-index	g-index

134	134	134	1315
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carbohydrate doping to enhance electromagnetic properties of MgB2 superconductors. Applied Physics Letters, 2006, 89, 142505.	3.3	226
2	Substitution-induced pinning in MgB2superconductor doped with SiC nano-particles. Superconductor Science and Technology, 2002, 15, 1587-1591.	3.5	130
3	Supercurrent transport inYBa2Cu3O7âˆ’Î´epitaxial thin films in a dc magnetic field. Physical Review B, 2006, 73, .	3.2	105
4	Sugar Coating of Boron Powder for Efficient Carbon Doping of MgB2 with Enhanced Current-Carrying Performance. Advanced Materials, 2007, 19, 1373-1376.	21.0	94
5	Superconductivity, critical current density, and flux pinning in MgB2âˆ’x(SiC)x/2 superconductor after SiC nanoparticle doping. Journal of Applied Physics, 2003, 94, 1850-1856.	2.5	91
6	Constituents of the Quasiparticle Spectrum Along the Nodal Direction of High-TcCuprates. Physical Review Letters, 2006, 97, 017002.	7.8	89
7	Properties of superconducting MgB2wires:in situversusex situreaction technique. Superconductor Science and Technology, 2003, 16, 639-644.	3.5	69
8	Drastic improvement of surface structure and current-carrying ability in YBa2Cu3O7 films by introducing multilayered structure. Applied Physics Letters, 2006, 88, 232506.	3.3	69
9	Influence of Ag, Cu and Fe sheaths on MgB2superconducting tapes. Superconductor Science and Technology, 2002, 15, 236-240.	3.5	52
10	Multilayering and Ag-Doping for Properties and Performance Enhancement in ${hbox{YBa}}_{2}{hbox{Cu}}_{3}{hbox{O}}_{7}$ Films. IEEE Transactions on Applied Superconductivity, 2007, 17, 3585-3588.	1.7	38
11	Critical current density: Measurements vs. reality. Europhysics Letters, 2013, 103, 17006.	2.0	37
12	Vortex matter in superconductors. Low Temperature Physics, 2001, 27, 732-746.	0.6	34
13	Sugar as an optimal carbon source for the enhanced performance of MgB₂superconductors at high magnetic fields. Superconductor Science and Technology, 2008, 21, 015005.	3.5	34
14	Origin of paramagnetic magnetization in field-cooledYBa2Cu3O7âˆ’Î´films. Physical Review B, 2004, 69, .	3.2	33
15	Comparison of small-field behavior inMgB2, Low- and high-temperature superconductors. Physical Review B, 2006, 73, .	3.2	33
16	Overcritical state in superconducting round wires sheathed by iron. Journal of Applied Physics, 2004, 96, 1146-1153.	2.5	31
17	Superconducting screening on different length scales in high-quality bulk MgB2 superconductor. Journal of Applied Physics, 2004, 96, 4342-4351.	2.5	31
18	Single- and multi-filamentary Fe-sheathed MgB2 wires. Physica C: Superconductivity and Its Applications, 2002, 382, 349-354.	1.2	29

#	Article	IF	Citations
19	Analysis of low-field isotropic vortex glass containing vortex groups in YBa2Cu3O7â‚“ thin films visualized by scanning SQUID microscopy. Scientific Reports, 2015, 5, 8677.	3.3	29
20	Mechanisms of limitation and nature of field dependence of critical current in HTS epitaxial YBaCUO films. IEEE Transactions on Applied Superconductivity, 2003, 13, 3714-3717.	1.7	28
21	Effect of the processing parameters of MgB1.8(SiC)0.1/Fe tapes on the critical current density. Physica C: Superconductivity and Its Applications, 2003, 387, 321-327.	1.2	27
22	Effects of precursor powders and sintering processes on the superconducting properties of MgB2. Superconductor Science and Technology, 2004, 17, S528-S532.	3.5	25
23	Magnetic field processing to enhance critical current densities of MgB2 superconductors. Applied Physics Letters, 2006, 89, 202504.	3.3	25
24	Influence of the cooling rate on the main factors affecting current-carrying ability in pure and SiC-doped MgB2superconductors. Superconductor Science and Technology, 2007, 20, 5-10.	3.5	25
25	Explanation of magnetic behavior in Ru-based superconducting ferromagnets. Physical Review B, 2008, 77, .	3.2	25
26	Rectifying differences in transport, dynamic, and quasi-equilibrium measurements of critical current density. Journal of Applied Physics, 2013, 114, .	2.5	25
27	Direct visualization of iron sheath shielding effects in MgB2superconducting wires. Superconductor Science and Technology, 2003, 16, L33-L36.	3.5	23
28	Thermally activated depinning of individual vortices in YBa2Cu3O7 superconducting films. Physica C: Superconductivity and Its Applications, 2004, 407, 10-16.	1.2	23
29	Surface superconductivity and matching effect in a niobium thin film. Physica C: Superconductivity and Its Applications, 1998, 301, 72-84.	1.2	22
30	Vortex-glass phase transition and enhanced flux pinning in C⁴⁺-irradiated BaFe_{1.9}Ni_{0.1}As₂superconducting single crystals. Superconductor Science and Technology, 2013, 26, 095014.	3.5	22
31	Effect of deformation of parameters on interface morphology of silver-sheathed high-temperature superconductor tapes. Physica C: Superconductivity and Its Applications, 1995, 250, 170-174.	1.2	21
32	Virgin magnetization of a magnetically shielded superconductor wire: Theory and experiment. Applied Physics Letters, 2004, 84, 3921-3923.	3.3	20
33	Enhancement of Co substitution induced by Eu codoping in ZnO-based diluted magnetic semiconducting thin films. Journal of Applied Physics, 2010, 107, .	2.5	20
34	In situannealing of superconducting MgB2films prepared by pulsed laser deposition. Superconductor Science and Technology, 2003, 16, 1487-1492.	3.5	19
35	Large, Controllable Spikes of Magnetoresistance in La_{2/3}Ca_{1/3}MnO₃/SrTiO₃ Superlattices. ACS Nano, 2013, 7, 286-293.	14.6	19
36	Exact asymptotic behavior of magnetic stripe domain arrays. Physical Review B, 2013, 87, .	3.2	19

#	Article	IF	Citations
37	Significant tunability of thin film functionalities enabled by manipulating magnetic and structural nano-domains. Applied Surface Science, 2014, 311, 549-557.	6.1	19
38	Torque magnetometry on thin magnetite films at low temperatures. Journal of Magnetism and Magnetic Materials, 2000, 211, 271-277.	2.3	18
39	Superconducting Properties of ${m MgB}_{2}$: Polycarbosilane Versus Conventional Nano-SiC Doping. IEEE Transactions on Applied Superconductivity, 2007, 17, 2790-2793.	1.7	16
40	Coexistence of ferromagnetism and cluster glass state in superconducting ferromagnet RuSr2Eu1.5Ce0.5Cu2O10â^Î´. Journal of Applied Physics, 2009, 105, 07E303.	2.5	16
41	Theoretical Consideration of Superconducting Coils for Compact Superconducting Magnetic Energy Storage Systems. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	16
42	Field dependence of the ferromagnetic/superconducting proximity effect in a YBCO/STO/LCMO multilayer. Nanoscale, 2018, 10, 18995-19003.	5.6	16
43	Impact of sintering temperature on the physical properties of the superconducting ferromagnet: RuSr2Eu1.5Ce0.5Cu2O10. Journal of Applied Physics, 2007, 101, 09G109.	2.5	15
44	Effects of austenizing temperature, cooling rate and isothermal temperature on overall phase transformation characteristics in high carbon steel. Journal of Materials Research and Technology, 2020, 9, 15286-15297.	5.8	15
45	Dynamic magneto-optical imaging of superconducting thin films. Superconductor Science and Technology, 2016, 29, 035014.	3.5	14
46	Unadulterated spectral function of low-energy quasiparticles inBi2Sr2CaCu2O8+Î´. Physical Review B, 2006, 74, .	3.2	13
47	Quantitative Description of Critical Current Density in YBCO Films and Multilayers. IEEE Transactions on Applied Superconductivity, 2009, 19, 3391-3394.	1.7	13
48	Depinning of a driven vortex lattice in high-Tcfilms. Physical Review B, 1999, 60, 4293-4301.	3.2	11
49	Out-of-plane stray field at magnetization reversal in epitaxial magnetite thin films. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1097-1099.	2.3	11
50	Iron-sheath influence on the superconductivity of MgB2core in wires and tapes. Superconductor Science and Technology, 2004, 17, S410-S414.	3.5	11
51	Vibration effect on magnetization and critical current density of superconductors. Superconductor Science and Technology, 2016, 29, 075002.	3.5	11
52	Tunable pinning effects produced by nonâ€uniform antidot arrays in YBCO thin films. Annalen Der Physik, 2017, 529, 1600283.	2.4	11
53	9â€ƒâ€ƒDevelopments in high temperature superconductivity. Annual Reports on the Progress of Chemistry Section C, 2002, 98, 323-373.	4.4	10
54	Superconducting and Microstructural Properties of Two Types of<tex>$rm MgB_2$</tex>Films Prepared by Pulsed Laser Deposition. IEEE Transactions on Applied Superconductivity, 2005, 15, 3261-3264.	1.7	10

#	Article	IF	Citations
55	An all-field-range description of the critical current density in superconducting YBCO films. Superconductor Science and Technology, 2011, 24, 105020.	3.5	10
56	Quantitative model for tunable microstructure in magnetic FePt thin films by pulsed laser deposition. Journal Physics D: Applied Physics, 2013, 46, 215502.	2.8	10
57	Observation of Transient Overcritical Currents in YBCO Thin Films using High-Speed Magneto-Optical Imaging and Dynamic Current Mapping. Scientific Reports, 2017, 7, 40235.	3.3	10
58	Effect of various mechanical deformation processes on critical current density and microstructure in MgB2tapes and wires. Superconductor Science and Technology, 2002, 15, 1490-1493.	3.5	9
59	An attempt to improve the superconducting properties of MgB2 by doping with Zn-containing organic compound. Journal of Alloys and Compounds, 2009, 487, 42-46.	5.5	9
60	Decoupling transition of two coherent vortex arrays within the surface superconductivity state. Physical Review B, 2004, 70, .	3.2	8
61	Magnetic flux penetration in MgB2thin films produced by pulsed laser deposition. Superconductor Science and Technology, 2005, 18, 1391-1395.	3.5	8
62	Origin of Surface Morphology Variation During Pulsed Laser Deposition of ${m YBa}_{2}{m Cu}_{3}{m O}_{7}$ Superconducting Films. IEEE Transactions on Applied Superconductivity, 2011, 21, 3179-3183.	1.7	8
63	The Labusch parameter of a driven flux line lattice in YBa Cu O superconducting films. European Physical Journal B, 2000, 17, 405-410.	1.5	7
64	Cluster spin glass and superparamagnetism in RuSr2Eu1.5Ce0.5Cu2O10-Î´. European Physical Journal B, 2010, 74, 429-436.	1.5	7
65	Partial carrier freeze-out at the LaAlO3/SrTiO3 oxide interface. APL Materials, 2019, 7, .	5.1	7
66	Step-Edge Josephson Junctions on Multilayered High Temperature Superconducting Thin Film. IEEE Transactions on Applied Superconductivity, 2011, 21, 156-159.	1.7	6
67	Changing the Critical Current Density and Magnetic Properties of YBa<inline-formula> <tex-math notation="LaTeX">$_2$</tex-math> </inline-formula>Cu<inline-formula> <tex-math notation="LaTeX">$_3$</tex-math> </inline-formula>O<inline-formula> <tex-math notation="LaTeX">$_7$</tex-math> </inline-formula> by Using Large Antidots. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	6
68	Influence of a driving force on the pinning of a field-cooled vortex lattice. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1187-1188.	1.2	5
69	Critical current behaviour of YBCO thin films described by vortex pinning on low-angle domain boundaries and vortex creep. Physica C: Superconductivity and Its Applications, 2012, 479, 151-153.	1.2	5
70	Effect of Substrate and Buffer Layer Materials on Properties of Thin $hbox{YBa}_{2}hbox{Cu}_{3}hbox{O}_{7 - {m x}}$ Films. IEEE Transactions on Applied Superconductivity, 2013, 23, 6601105-6601105.	1.7	5
71	Enhancing Properties of Highâ€Temperature Superconducting Stepâ€Edge Josephson Junctions by Nanoâ€Multilayers with a Small Mismatch. Advanced Materials Interfaces, 2014, 1, 1300112.	3.7	5
72	Origin of magnetic flux-jumps in Nb films subject to mechanical vibrations and corresponding magnetic perturbations. Physical Review B, 2018, 97, .	3.2	5

#	Article	IF	Citations
73	Enhancing the critical current of YBa2Cu3O7 thin films by substrate nanoengineering. Journal of Applied Physics, 2018, 124, 233905.	2.5	5
74	Effect of silicon and partitioning temperature on the microstructure and mechanical properties of high-carbon steel in a quenching and partitioning heat treatment. Journal of Materials Science, 2021, 56, 15423-15440.	3.7	5
75	Magneto-Optical Imaging of Magnetic Screening in Superconducting Wires. , 2004, , 141-148.		5
76	Origin of J/sub c/ lateral spatial distribution in Ag-sheathed Bi-2212 HTSC tapes. IEEE Transactions on Applied Superconductivity, 1997, 7, 1331-1334.	1.7	4
77	Magnetic flux distribution in a superconducting core of Bi-2223 tape. Physica C: Superconductivity and Its Applications, 2003, 388-389, 405-406.	1.2	4
78	Multilayered deposition and its role in the enhancement of YBa2Cu3O7 film performance. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1379-1380.	1.2	4
79	Influence of Ag-doping and thickness on superconducting properties of YBa2Cu3O7 films. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1363-1364.	1.2	4
80	Reproducible nucleation sites for flux dendrites in MgB2. Surface Science, 2007, 601, 5712-5714.	1.9	4
81	Effects of sintering atmosphere on the superconductivity of MgB₂. Superconductor Science and Technology, 2009, 22, 045018.	3.5	4
82	Anisotrophic currents and flux jumps in high- superconducting films with self-organized arrays of planar defects. Physica C: Superconductivity and Its Applications, 2010, 470, 799-802.	1.2	4
83	Magnetic field dependent neutron powder diffraction studies of Ru0.9Sr2YCu2.1O7.9. Journal of Applied Physics, 2010, 107, 09E134.	2.5	4
84	Nanocoating of particles for optimal doping and universal enhancement of current-carrying ability in â€œorganicâ€•MgB2â^'xCx superconductors. Journal of Applied Physics, 2010, 107, 09E147.	2.5	4
85	Structure and Properties of MgB2: Effect of Ti-O and TiC Additions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4
86	A new approach to the inverse problem for current mapping in thin-film superconductors. Journal of Applied Physics, 2018, 123, 123906.	2.5	4
87	Guided Vortex Motion Control in Superconducting Thin Films by Sawtooth Ion Surface Modification. ACS Applied Materials & Interfaces, 2020, 12, 26170-26176.	8.0	4
88	Field behavior of the critical current in quasi-single-crystalline YBCO films. Physica C: Superconductivity and Its Applications, 2004, 401, 316-319.	1.2	3
89	Cooling rate effect on microstructure and superconducting properties of pure and SiC doped MgB2 superconductors. Physica C: Superconductivity and Its Applications, 2007, 460-462, 579-580.	1.2	3
90	Modification of Pinning in YBa<inline-formula> <tex-math notation="LaTeX">$_2$</tex-math> </inline-formula>Cu<inline-formula> <tex-math notation="LaTeX">$_3$</tex-math> </inline-formula>O<inline-formula> <tex-math notation="LaTeX">$_7$</tex-math> </inline-formula> Thin Films by Substrate Annealing. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	3

#	Article	IF	Citations
91	Correlations between the structure and superconducting properties of MT-YBaCuO. Journal of Physics: Conference Series, 2020, 1559, 012048.	0.4	3
92	Dominant factors for the pinning enhancement by large artificial partial and complete antidots in superconducting films. Superconductor Science and Technology, 2020, 33, 035004.	3.5	3
93	Growths of MgB2 thin films by pulsed laser deposition. Crystal Engineering, 2002, 5, 391-400.	0.7	2
94	3D?2D-like vortex transition above Bc2 in niobium films. Physica B: Condensed Matter, 2003, 329-333, 1377-1378.	2.7	2
95	Characterization and growth of magnesium diboride single crystals. Journal of Crystal Growth, 2004, 263, 218-222.	1.5	2
96	Influence of the final heat treatment on properties of Bi-2223 multifilamentary tapes. Physica C: Superconductivity and Its Applications, 2005, 425, 135-143.	1.2	2
97	Effect of Sucrose (C$_{12}{hbox {H}}_{22}{hbox {O}}_{11}$) Doping on the Critical Current Density of MgB$_{2}$. IEEE Transactions on Applied Superconductivity, 2007, 17, 2933-2936.	1.7	2
98	A pinning model and universal pinning regimes in YBa2Cu3O7 superconducting films. Physica C: Superconductivity and Its Applications, 2010, 470, S857-S859.	1.2	2
99	Development of Energy-Efficient Cryogenic Leads with High Temperature Superconducting Films on Ceramic Substrates. Physics Procedia, 2012, 36, 365-370.	1.2	2
100	Inhomogeneities in YBa2Cu3O7 thin films with reduced thickness. Physica C: Superconductivity and Its Applications, 2012, 479, 102-105.	1.2	2
101	Electroresistance and magnetoresistance effects in superconductorâ€“insulatorâ€“ferromagnet hybrid structures. Physica C: Superconductivity and Its Applications, 2012, 479, 143-146.	1.2	2
102	Magnetic Properties of YBCO/LCMO Superlattices with and without STO Interlayers. Advanced Materials Research, 2014, 975, 101-105.	0.3	2
103	A Structural Optimization of Ferrite/YBCO Bilayers. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	2
104	Effect of Microstructural Features on Magnetic Properties of High-Carbon Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5107-5122.	2.2	2
105	Large artificial ferromagnetic dot arrays for the critical current enhancement in superconducting YBa₂Cu₃O$_{7-delta}$ thin films. Superconductor Science and Technology, 2020, 33, 105006.	3.5	2
106	Thermally Activated Depinning of a Driven Flux Line Lattice. Physica Status Solidi (B): Basic Research, 1999, 215, 573-578.	1.5	1
107	Influence of the iron sheath on the local supercurrent distribution in MgB2wires. Journal of Physics: Conference Series, 2006, 43, 95-98.	0.4	1
108	New Method for the Fabrication of Al-Stabilized Fe/MgB$_{2}$ Wires. IEEE Transactions on Applied Superconductivity, 2007, 17, 2806-2809.	1.7	1

#	Article	IF	Citations
109	Effects of sintering atmosphere on the superconducting properties of SiC doped bulk MgB2superconductor. Journal of Physics: Conference Series, 2008, 97, 012081.	0.4	1
110	Identification of factors limiting the critical current density in MgB2â˜'xCxsuperconductors at low magnetic fields. Journal of Physics: Conference Series, 2008, 97, 012314.	0.4	1
111	DEVELOPMENT OF MULTILAYER COATED CONDUCTORS WITH SIMPLIFIED BUFFER STRUCTURE. International Journal of Modern Physics B, 2009, 23, 3526-3531.	2.0	1
112	Model explaining magnetic phases and behavior in Ruthenium-based superconducting ferromagnets. Physica C: Superconductivity and Its Applications, 2010, 470, S707-S709.	1.2	1
113	Multilayered Approach to Step-Edge Josephson Junctions. Materials Science Forum, 2010, 654-656, 1836-1839.	0.3	1
114	Extended dislocation-based pinning mechanism in superconducting YBa2Cu3O7 films. Journal of Applied Physics, 2010, 107, 09E118.	2.5	1
115	Magnetic phase diagrams based on static and dynamic magnetic behaviour in Ru-based superconducting ferromagnets. Journal of Physics Condensed Matter, 2011, 23, 435702.	1.8	1
116	Structural and magnetic properties of (NdBa)MnO3 films on lattice-matched substrates. Journal of Magnetism and Magnetic Materials, 2013, 333, 53-62.	2.3	1
117	Properties of individual YBCO layers in a two-layered design for energy-efficient digital data cables. , 2013, , .		1
118	Direct Measurements of Field-Dependent Ordering in a Low-Field Vortex Glass State. IEEE Transactions on Applied Superconductivity, 2016, , 1-1.	1.7	1
119	Mechanical and Squid Measurements on NB Thin Films: Learning from a Conventional Superconductor. , 1999, , 149-172.		1
120	The Labusch Parameter of a Driven Flux Line Lattice in YBa2Cu3O7Superconducting Films. EPJ Direct, 2000, 2, 1-11.	0.1	0
121	Superconducting Properties of MgB₂ Superconductor Doped with SiC Nanopowder. Journal of Metastable and Nanocrystalline Materials, 2003, 15-16, 679-684.	0.1	0
122	Critical Current Density in Superconducting MgB2. , 2005, , 1011-1048.		0
123	Peak-effect and angular hysteresis in Jc(H, Î¸) dependencies for YBa2Cu3O7-Î´ epitaxial films. Journal of Physics: Conference Series, 2006, 43, 674-677.	0.4	0
124	Structure, pinning and supercurrent in YBa2Cu3O7films and ReBa2Cu3O7multilayers. Journal of Physics: Conference Series, 2006, 43, 251-254.	0.4	0
125	An alternative method for determination of the lock-in angle in twinned superconductors. Journal of Applied Physics, 2006, 99, 043904.	2.5	0
126	Superconducting properties of Al-stabilized MgB2 wires. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1420-1421.	1.2	0

#	Article	IF	Citations
127	COMPARATIVE STUDY OF MAGNETIC BEHAVIOR OF RuSr2RE1.5Ce0.5Cu2O10-Î´ WHERE RE = Eu AND Sm. International Journal of Modern Physics B, 2009, 23, 3486-3491.	2.0	0
128	Preparing ${m MgB}_{2}$ With Excessive Mg Environment Sintering and Two-Step Sintering Approach. IEEE Transactions on Applied Superconductivity, 2009, 19, 2748-2751.	1.7	0
129	"Organic" MgB2â^'xCxsuperconductor with high performance enabled by liquid mixing approach. Journal of Physics: Conference Series, 2010, 234, 012038.	0.4	0
130	Constrains of Super-Current Flow in YBCO Coated Conductors. Materials Science Forum, 2010, 654-656, 1704-1707.	0.3	0
131	Multi-Terminal Superconducting Nonequilibrium Device With a Ferromagnetic Screen. IEEE Transactions on Applied Superconductivity, 2011, 21, 721-723.	1.7	0
132	Magnetic phase diagram and correlation between metamagnetism and superconductivity in Ru0.9Sr2YCu2.1O7.9. European Physical Journal B, 2013, 86, 1.	1.5	0
133	Optimization of Bi-2223 Tape Fabrication Procedure With Help Of Magneto-Optical Imaging. , 2004, , 125-132.		0
134	Evidence for two Vortex Species in Niobium Films in Parallel Fields. , 1999, , 545-558.		0