## Alexey V Pan

## List of Publications by Year in descending order

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#	Article	lF	CITATIONS
1	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
2	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
3	Correlations between the structure and superconducting properties of MT-YBaCuO. Journal of Physics: Conference Series, 2020, 1559, 012048.	0.4	3
4	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
5	Guided Vortex Motion Control in Superconducting Thin Films by Sawtooth Ion Surface Modification. ACS Applied Materials & Interfaces, 2020, 12, 26170-26176.	8.0	4
6	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
7	Large artificial ferromagnetic dot arrays for the critical current enhancement in superconducting YBa <sub>2</sub> Cu <sub>3</sub> O\$_{7-delta}\$ thin films. Superconductor Science and Technology, 2020, 33, 105006.	3.5	2
8	Partial carrier freeze-out at the LaAlO3/SrTiO3 oxide interface. APL Materials, 2019, 7, .	5.1	7
9	Modification of Pinning in YBa <inline-formula> <tex-math notation="LaTeX"&gt;\$_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	1.7	3
10	Changing the Critical Current Density and Magnetic Properties of YBa <inline-formula> <tex-math notation="LaTeX"&gt;\$_2\$ </tex-math </inline-formula> Cu <inline-formula> <tex-math notation="LaTeX"&gt;\$_3\$ </tex-math </inline-formula> O <inline-formula> <tex-math notation="LaTeX"&gt;\$_7\$ </tex-math </inline-formula> O <inline-formula> <tex-math Applied Superconductivity, 2018, 28, 1-5.</tex-math </inline-formula>	1.7	6
11	Structure and Properties of MgB2: Effect of Ti-O and TiC Additions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4
12	A new approach to the inverse problem for current mapping in thin-film superconductors. Journal of Applied Physics, 2018, 123, 123906.	2.5	4
13	Origin of magnetic flux-jumps in Nb films subject to mechanical vibrations and corresponding magnetic perturbations. Physical Review B, 2018, 97, .	3.2	5
14	Enhancing the critical current of YBa2Cu3O7 thin films by substrate nanoengineering. Journal of Applied Physics, 2018, 124, 233905.	2.5	5
15	Field dependence of the ferromagnetic/superconducting proximity effect in a YBCO/STO/LCMO multilayer. Nanoscale, 2018, 10, 18995-19003.	5.6	16
16	A Structural Optimization of Ferrite/YBCO Bilayers. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	2
17	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
18	Tunable pinning effects produced by nonâ€uniform antidot arrays in YBCO thin films. Annalen Der Physik, 2017, 529, 1600283.	2.4	11

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19	Vibration effect on magnetization and critical current density of superconductors. Superconductor Science and Technology, 2016, 29, 075002.	3.5	11
20	Direct Measurements of Field-Dependent Ordering in a Low-Field Vortex Glass State. IEEE Transactions on Applied Superconductivity, 2016, , 1-1.	1.7	1
21	Dynamic magneto-optical imaging of superconducting thin films. Superconductor Science and Technology, 2016, 29, 035014.	3.5	14
22	Theoretical Consideration of Superconducting Coils for Compact Superconducting Magnetic Energy Storage Systems. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	16
23	Analysis of low-field isotropic vortex glass containing vortex groups in YBa2Cu3O7â^'x thin films visualized by scanning SQUID microscopy. Scientific Reports, 2015, 5, 8677.	3.3	29
24	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
25	Magnetic Properties of YBCO/LCMO Superlattices with and without STO Interlayers. Advanced Materials Research, 2014, 975, 101-105.	0.3	2
26	Significant tunability of thin film functionalities enabled by manipulating magnetic and structural nano-domains. Applied Surface Science, 2014, 311, 549-557.	6.1	19
27	Magnetic phase diagram and correlation between metamagnetism and superconductivity in Ru0.9Sr2YCu2.1O7.9. European Physical Journal B, 2013, 86, 1.	1.5	0
28	Critical current density: Measurements vs. reality. Europhysics Letters, 2013, 103, 17006.	2.0	37
29	Vortex-glass phase transition and enhanced flux pinning in C <sup>4+</sup> -irradiated BaFe <sub>1.9</sub> Ni <sub>0.1</sub> As <sub>2</sub> superconducting single crystals. Superconductor Science and Technology, 2013, 26, 095014.	3.5	22
30	Large, Controllable Spikes of Magnetoresistance in La <sub>2/3</sub> Ca <sub>1/3</sub> MnO <sub>3</sub> /SrTiO <sub>3</sub> Superlattices. ACS Nano, 2013, 7, 286-293.	14.6	19
31	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
32	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
33	Exact asymptotic behavior of magnetic stripe domain arrays. Physical Review B, 2013, 87, .	3.2	19
34	Properties of individual YBCO layers in a two-layered design for energy-efficient digital data cables. , 2013, , .		1
35	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
36	Rectifying differences in transport, dynamic, and quasi-equilibrium measurements of critical current density. Journal of Applied Physics, 2013, 114, .	2.5	25

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37	Development of Energy-Efficient Cryogenic Leads with High Temperature Superconducting Films on Ceramic Substrates. Physics Procedia, 2012, 36, 365-370.	1.2	2
38	Inhomogeneities in YBa2Cu3O7 thin films with reduced thickness. Physica C: Superconductivity and Its Applications, 2012, 479, 102-105.	1.2	2
39	Electroresistance and magnetoresistance effects in superconductor–insulator–ferromagnet hybrid structures. Physica C: Superconductivity and Its Applications, 2012, 479, 143-146.	1.2	2
40	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
41	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
42	An all-field-range description of the critical current density in superconducting YBCO films. Superconductor Science and Technology, 2011, 24, 105020.	3.5	10
43	Step-Edge Josephson Junctions on Multilayered High Temperature Superconducting Thin Film. IEEE Transactions on Applied Superconductivity, 2011, 21, 156-159.	1.7	6
44	Multi-Terminal Superconducting Nonequilibrium Device With a Ferromagnetic Screen. IEEE Transactions on Applied Superconductivity, 2011, 21, 721-723.	1.7	0
45	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
46	"Organic" MgB2â^xCxsuperconductor with high performance enabled by liquid mixing approach. Journal of Physics: Conference Series, 2010, 234, 012038.	0.4	0
47	Cluster spin glass and superparamagnetism in RuSr2Eu1.5Ce0.5Cu2O10- δ. European Physical Journal B, 2010, 74, 429-436.	1.5	7
48	A pinning model and universal pinning regimes in YBa2Cu3O7 superconducting films. Physica C: Superconductivity and Its Applications, 2010, 470, S857-S859.	1.2	2
49	Model explaining magnetic phases and behavior in Ruthenium-based superconducting ferromagnets. Physica C: Superconductivity and Its Applications, 2010, 470, S707-S709.	1.2	1
50	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
51	Constrains of Super-Current Flow in YBCO Coated Conductors. Materials Science Forum, 2010, 654-656, 1704-1707.	0.3	0
52	Multilayered Approach to Step-Edge Josephson Junctions. Materials Science Forum, 2010, 654-656, 1836-1839.	0.3	1
53	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
54	Magnetic field dependent neutron powder diffraction studies of Ru0.9Sr2YCu2.1O7.9. Journal of Applied Physics, 2010, 107, 09E134.	2.5	4

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55	Nanocoating of particles for optimal doping and universal enhancement of current-carrying ability in "organic―MgB2â^'xCx superconductors. Journal of Applied Physics, 2010, 107, 09E147.	2.5	4
56	Extended dislocation-based pinning mechanism in superconducting YBa2Cu3O7 films. Journal of Applied Physics, 2010, 107, 09E118.	2.5	1
57	COMPARATIVE STUDY OF MAGNETIC BEHAVIOR OF RuSr2RE1.5Ce0.5Cu2O10-δWHERE RE = Eu AND Sm. International Journal of Modern Physics B, 2009, 23, 3486-3491.	2.0	0
58	DEVELOPMENT OF MULTILAYER COATED CONDUCTORS WITH SIMPLIFIED BUFFER STRUCTURE. International Journal of Modern Physics B, 2009, 23, 3526-3531.	2.0	1
59	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
60	Effects of sintering atmosphere on the superconductivity of MgB <sub>2</sub> . Superconductor Science and Technology, 2009, 22, 045018.	3.5	4
61	Coexistence of ferromagnetism and cluster glass state in superconducting ferromagnet RuSr2Eu1.5Ce0.5Cu2O10â^δ. Journal of Applied Physics, 2009, 105, 07E303.	2.5	16
62	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
63	Quantitative Description of Critical Current Density in YBCO Films and Multilayers. IEEE Transactions on Applied Superconductivity, 2009, 19, 3391-3394.	1.7	13
64	Explanation of magnetic behavior in Ru-based superconducting ferromagnets. Physical Review B, 2008, 77, .	3.2	25
65	Sugar as an optimal carbon source for the enhanced performance of MgB <sub>2</sub> superconductors at high magnetic fields. Superconductor Science and Technology, 2008, 21, 015005.	3.5	34
66	Effects of sintering atmosphere on the superconducting properties of SiC doped bulk MgB2superconductor. Journal of Physics: Conference Series, 2008, 97, 012081.	0.4	1
67	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
68	Superconducting Properties of \${m MgB}_{2}\$: Polycarbosilane Versus Conventional Nano-SiC Doping. IEEE Transactions on Applied Superconductivity, 2007, 17, 2790-2793.	1.7	16
69	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
70	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
71	New Method for the Fabrication of Al-Stabilized Fe/MgB\$_{2}\$ Wires. IEEE Transactions on Applied Superconductivity, 2007, 17, 2806-2809.	1.7	1
72	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

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73	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
74	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
75	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
76	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
77	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
78	Superconducting properties of Al-stabilized MgB2 wires. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1420-1421.	1.2	0
79	Reproducible nucleation sites for flux dendrites in MgB2. Surface Science, 2007, 601, 5712-5714.	1.9	4
80	Peak-effect and angular hysteresis in Jc(H, Î,) dependencies for YBa2Cu3O7-δ epitaxial films. Journal of Physics: Conference Series, 2006, 43, 674-677.	0.4	0
81	Influence of the iron sheath on the local supercurrent distribution in MgB2wires. Journal of Physics: Conference Series, 2006, 43, 95-98.	0.4	1
82	Structure, pinning and supercurrent in YBa2Cu3O7films and ReBa2Cu3O7multilayers. Journal of Physics: Conference Series, 2006, 43, 251-254.	0.4	0
83	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
84	Constituents of the Quasiparticle Spectrum Along the Nodal Direction of High-TcCuprates. Physical Review Letters, 2006, 97, 017002.	7.8	89
85	Unadulterated spectral function of low-energy quasiparticles inBi2Sr2CaCu2O8+δ. Physical Review B, 2006, 74, .	3.2	13
86	Magnetic field processing to enhance critical current densities of MgB2 superconductors. Applied Physics Letters, 2006, 89, 202504.	3.3	25
87	Supercurrent transport inYBa2Cu3O7â^δepitaxial thin films in a dc magnetic field. Physical Review B, 2006, 73, .	3.2	105
88	An alternative method for determination of the lock-in angle in twinned superconductors. Journal of Applied Physics, 2006, 99, 043904.	2.5	0
89	Comparison of small-field behavior inMgB2, Low- and high-temperature superconductors. Physical Review B, 2006, 73, .	3.2	33
90	Carbohydrate doping to enhance electromagnetic properties of MgB2 superconductors. Applied Physics Letters, 2006, 89, 142505.	3.3	226

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91	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
92	Magnetic flux penetration in MgB2thin films produced by pulsed laser deposition. Superconductor Science and Technology, 2005, 18, 1391-1395.	3.5	8
93	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
94	Critical Current Density in Superconducting MgB2. , 2005, , 1011-1048.		0
95	Iron-sheath influence on the superconductivity of MgB2core in wires and tapes. Superconductor Science and Technology, 2004, 17, S410-S414.	3.5	11
96	Effects of precursor powders and sintering processes on the superconducting properties of MgB2. Superconductor Science and Technology, 2004, 17, S528-S532.	3.5	25
97	Origin of paramagnetic magnetization in field-cooledYBa2Cu3O7â^îfilms. Physical Review B, 2004, 69, .	3.2	33
98	Overcritical state in superconducting round wires sheathed by iron. Journal of Applied Physics, 2004, 96, 1146-1153.	2.5	31
99	Decoupling transition of two coherent vortex arrays within the surface superconductivity state. Physical Review B, 2004, 70, .	3.2	8
100	Superconducting screening on different length scales in high-quality bulk MgB2 superconductor. Journal of Applied Physics, 2004, 96, 4342-4351.	2.5	31
101	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
102	Thermally activated depinning of individual vortices in YBa2Cu3O7 superconducting films. Physica C: Superconductivity and Its Applications, 2004, 407, 10-16.	1.2	23
103	Characterization and growth of magnesium diboride single crystals. Journal of Crystal Growth, 2004, 263, 218-222.	1.5	2
104	Virgin magnetization of a magnetically shielded superconductor wire: Theory and experiment. Applied Physics Letters, 2004, 84, 3921-3923.	3.3	20
105	Magneto-Optical Imaging of Magnetic Screening in Superconducting Wires. , 2004, , 141-148.		5
106	Optimization of Bi-2223 Tape Fabrication Procedure With Help Of Magneto-Optical Imaging. , 2004, , 125-132.		0
107	3D?2D-like vortex transition above Bc2 in niobium films. Physica B: Condensed Matter, 2003, 329-333, 1377-1378.	2.7	2
108	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

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109	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
110	Superconductivity, critical current density, and flux pinning in MgB2â^'x(SiC)x/2 superconductor after SiC nanoparticle doping. Journal of Applied Physics, 2003, 94, 1850-1856.	2.5	91
111	Superconducting Properties of MgB <sub>2</sub> Superconductor Doped with SiC Nanopowder. Journal of Metastable and Nanocrystalline Materials, 2003, 15-16, 679-684.	0.1	0
112	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
113	Properties of superconducting MgB2wires:in situversusex situreaction technique. Superconductor Science and Technology, 2003, 16, 639-644.	3.5	69
114	Direct visualization of iron sheath shielding effects in MgB2superconducting wires. Superconductor Science and Technology, 2003, 16, L33-L36.	3.5	23
115	In situannealing of superconducting MgB2films prepared by pulsed laser deposition. Superconductor Science and Technology, 2003, 16, 1487-1492.	3.5	19
116	Substitution-induced pinning in MgB2superconductor doped with SiC nano-particles. Superconductor Science and Technology, 2002, 15, 1587-1591.	3.5	130
117	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
118	Influence of Ag, Cu and Fe sheaths on MgB2superconducting tapes. Superconductor Science and Technology, 2002, 15, 236-240.	3.5	52
119	9â€fâ€fDevelopments in high temperature superconductivity. Annual Reports on the Progress of Chemistry Section C, 2002, 98, 323-373.	4.4	10
120	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
121	Single- and multi-filamentary Fe-sheathed MgB2 wires. Physica C: Superconductivity and Its Applications, 2002, 382, 349-354.	1.2	29
122	Growths of MgB2 thin films by pulsed laser deposition. Crystal Engineering, 2002, 5, 391-400.	0.7	2
123	Vortex matter in superconductors. Low Temperature Physics, 2001, 27, 732-746.	0.6	34
124	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
125	Torque magnetometry on thin magnetite films at low temperatures. Journal of Magnetism and Magnetic Materials, 2000, 211, 271-277.	2.3	18
126	The Labusch Parameter of a Driven Flux Line Lattice in YBa2Cu3O7Superconducting Films. EPJ Direct, 2000, 2, 1-11.	0.1	0

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127	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
128	Depinning of a driven vortex lattice in high-Tcfilms. Physical Review B, 1999, 60, 4293-4301.	3.2	11
129	Thermally Activated Depinning of a Driven Flux Line Lattice. Physica Status Solidi (B): Basic Research, 1999, 215, 573-578.	1.5	1
130	Mechanical and Squid Measurements on NB Thin Films: Learning from a Conventional Superconductor. , 1999, , 149-172.		1
131	Evidence for two Vortex Species in Niobium Films in Parallel Fields. , 1999, , 545-558.		0
132	Surface superconductivity and matching effect in a niobium thin film. Physica C: Superconductivity and Its Applications, 1998, 301, 72-84.	1.2	22
133	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
134	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