

Anna Palau

List of Publications by Year in descending order

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papers

2,716
citations

185998

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106
docs citations

106
times ranked

1757
citing authors

#	ARTICLE	IF	CITATIONS
1	Volume Resistive Switching in Metallic Perovskite Oxides Driven by the Metal-Insulator Transition. Kluwer International Series in Electronic Materials: Science and Technology, 2022, , 289-310.	0.3	0
2	Electrically-Driven Oxygen Vacancy Aggregation and Displacement in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Films. Advanced Electronic Materials, 2022, 8, .	2.6	2
3	Investigation of diethanolamine (DEA) as a chelating agent in the fabrication of fluorine-free propionate route $\text{YBa}_2\text{Cu}_3\text{O}_7$ (YBCO) thin films. Superconductor Science and Technology, 2022, 35, 054010.	1.8	1
4	Optimizing vortex pinning in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconducting films up to high magnetic fields. Communications Materials, 2022, 3, .	2.9	7
5	Potential of Copper Oxide High-Temperature Superconductors for Tailoring Ferromagnetic Spin Textures. , 2021, , 167-182.		1
6	Low-Fluorine Ba-Deficient Solutions for High-Performance Superconducting YBCO Films. Coatings, 2021, 11, 199.	1.2	3
7	Ultra-high critical current densities of superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin films in the overdoped state. Scientific Reports, 2021, 11, 8176.	1.6	24
8	High Performance of Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ Thick Films Prepared by Single-Deposition Inkjet Printing. ACS Applied Electronic Materials, 2021, 3, 3948-3961.	2.0	8
9	Luminescent and Magnetic Tb-MOF Flakes Deposited on Silicon. Molecules, 2021, 26, 5503.	1.7	6
10	Direct Visualization of Current-Stimulated Oxygen Migration in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Thin Films. ACS Nano, 2020, 14, 11765-11774.	7.3	14
11	Vortex pinning properties at dc and microwave frequencies of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films with nanorods and nanoparticles. Superconductor Science and Technology, 2020, 33, 074006.	1.8	7
12	Nanoscale Correlations between Metal-Insulator Transition and Resistive Switching Effect in Metallic Perovskite Oxides. Small, 2020, 16, e2001307.	5.2	20
13	Pyrolysis study of solution-derived superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ films: disentangling the physico-chemical transformations. Journal of Materials Chemistry C, 2020, 8, 10266-10282.	2.7	8
14	Suppression of superconductivity at the nanoscale in chemical solution derived $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin films with defective $\text{Y}_2\text{Ba}_4\text{Cu}_8\text{O}_{16}$ intergrowths. Nanoscale Advances, 2020, 2, 3384-3393.	2.2	6
15	Intrinsic anisotropy and pinning anisotropy in nanostructured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ from microwave measurements. Superconductor Science and Technology, 2020, 33, 044017.	1.8	14
16	Multi-Terminal Transistor-Like Devices Based on Strongly Correlated Metallic Oxides for Neuromorphic Applications. Materials, 2020, 13, 281.	1.3	3
17	Intrinsic anisotropy versus vortex pinning anisotropy in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin films. Superconductor Science and Technology, 2020, 33, 044017.	1.1	11
18	Depairing Current at High Magnetic Fields in Vortex-Free High-Temperature Superconducting Nanowires. Nano Letters, 2019, 19, 4174-4179.	4.5	10

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19	Control of nanostructure and pinning properties in solution deposited $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposites with preformed perovskite nanoparticles. <i>Scientific Reports</i> , 2019, 9, 5828.	1.6	43
20	Accelerated growth by flash heating of high critical current trifluoroacetate solution derived epitaxial superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ films. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4748-4759.	2.7	16
21	Engineering Oxygen Migration for Homogeneous Volume Resistive Switching in $\text{3}\text{Å}$ Terminal Devices. <i>Advanced Electronic Materials</i> , 2019, 5, 1800629.	2.6	18
22	Probing the lattice anharmonicity of superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ via phonon harmonics. <i>Physical Review B</i> , 2019, 100, .		
23	Electromigration in the dissipative state of high-temperature superconducting bridges. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	6
24	Disentangling vortex pinning landscape in chemical solution deposited superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films and nanocomposites. <i>Superconductor Science and Technology</i> , 2018, 31, 034004.	1.8	42
25	Epitaxial $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposite films and coated conductors from $\text{BaM}(\text{M} = \text{Zr, Hf})$ colloidal solutions. <i>Superconductor Science and Technology</i> , 2018, 31, 044001.	1.8	27
26	Angular flux creep contributions in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposites from electrical transport measurements. <i>Scientific Reports</i> , 2018, 8, 5924.	1.6	13
27	Vortex Lattice Instabilities in $\text{YBa}_2\text{Cu}_3\text{O}_7-x$ Nanowires. <i>Materials</i> , 2018, 11, 211.	1.3	12
28	Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30522-30531.	4.0	17
29	Untangling surface oxygen exchange effects in $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ thin films by electrical conductivity relaxation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 14129-14140.	1.3	17
30	Epitaxial superconducting $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}$ / Gd_2O_3 nanocomposite thin films from advanced low-fluorine solutions. <i>Superconductor Science and Technology</i> , 2017, 30, 125010.	1.8	27
31	Competition between Superconductor H Ferromagnetic stray magnetic fields in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films pierced with Co nano-rods. <i>Scientific Reports</i> , 2017, 7, 5663.	1.6	21
32	Volume Resistive Switching in metallic perovskite oxides driven by the Metal-Insulator Transition. <i>Journal of Electroceramics</i> , 2017, 39, 185-196.	0.8	26
33	6. Vortex dynamics in nanofabricated chemical solution deposition high-temperature superconducting films. , 2017, , 195-220.		1
34	Inkjet-Printed Chemical Solution Y_2O_3 Layers for Planarization of Technical Substrates. <i>Coatings</i> , 2017, 7, 227.	1.2	4
35	Encoding Magnetic States in Monopole-Like Configurations Using Superconducting Dots. <i>Advanced Science</i> , 2016, 3, 1600207.	5.6	12
36	Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Nanocomposites Using Preformed ZrO_2 Nanocrystals: Growth Mechanisms and Vortex Pinning Properties. <i>Advanced Electronic Materials</i> , 2016, 2, 1600161.	2.6	55

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37	Emerging Diluted Ferromagnetism in High- T_c Superconductors Driven by Point Defect Clusters. <i>Advanced Science</i> , 2016, 3, 1500295.	5.6	41
38	Solution design for low-fluorine trifluoroacetate route to $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films. <i>Superconductor Science and Technology</i> , 2016, 29, 024002.	1.8	40
39	Trapping Flux Avalanches in Nb Films by Circular Stop-Holes of Different Size. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-4.	1.1	6
40	First Observation of Flux Avalanches in a-MoSi Superconducting Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-4.	1.1	23
41	Resistive switching in $\text{CeO}_2/\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ bilayer for non-volatile memory applications. <i>Microelectronic Engineering</i> , 2015, 147, 37-40.	1.1	30
42	Geometrically controlled ratchet effect with collective vortex motion. <i>New Journal of Physics</i> , 2015, 17, 073022.	1.2	10
43	Epitaxial $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposite thin films from colloidal solutions. <i>Superconductor Science and Technology</i> , 2015, 28, 124007.	1.8	49
44	Size-controlled spontaneously segregated Ba_2YTaO_6 nanoparticles in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposites obtained by chemical solution deposition. <i>Superconductor Science and Technology</i> , 2014, 27, 044008.	1.8	46
45	Nanowall pinning for enhanced pinning force in YBCO films with nanofabricated structures. <i>Physica C: Superconductivity and Its Applications</i> , 2014, 506, 178-183.	0.6	10
46	Role of twin boundaries on vortex pinning of CSD YBCO nanocomposites. <i>Superconductor Science and Technology</i> , 2014, 27, 125009.	1.8	29
47	Vortex creep in TFA-YBCO nanocomposite films. <i>Superconductor Science and Technology</i> , 2014, 27, 115008.	1.8	15
48	Integration of atomic layer deposition CeO_2 thin films with functional complex oxides and 3D patterns. <i>Thin Solid Films</i> , 2014, 553, 7-12.	0.8	21
49	Magnetic and structural characterization of inkjet-printed TFA- $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ /MOD-CZO/ABAD-coated conductors. <i>Superconductor Science and Technology</i> , 2013, 26, 125004.		
50	Flexible manufacturing of functional ceramic coatings by inkjet printing. <i>Thin Solid Films</i> , 2013, 548, 489-497.	0.8	28
51	Strain-driven broken twin boundary coherence in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposite thin films. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	39
52	Unusual magneto-transport of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films due to the interplay of anisotropy, random disorder and nanoscale periodic pinning. <i>New Journal of Physics</i> , 2013, 15, 103022.	1.2	20
53	Solution-derived $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposite films with a Ba_2YTaO_6 secondary phase for improved superconducting properties. <i>Superconductor Science and Technology</i> , 2013, 26, 015001.	1.8	42
54	Nanostrain induced pinning in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ nanocomposites even close to the irreversibility line. <i>Superconductor Science and Technology</i> , 2012, 25, 122001.	1.8	10

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55	Cu_{2-x}O vortex motion in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin films based on trifluoroacetate solutions. Superconductor Science and Technology, 2012, 25, 123001.	1.1	38
56	Low Temperature Epitaxial Oxide Ultrathin Films and Nanostructures by Atomic Layer Deposition. Chemistry of Materials, 2012, 24, 3732-3737.	3.2	40
57	Nucleation and mesostrain influence on percolating critical currents of solution derived $\text{YBa}_2\text{Cu}_3\text{O}_7$ superconducting thin films. Physica C: Superconductivity and Its Applications, 2012, 482, 58-67.	0.6	47
58	Growth, nanostructure and vortex pinning in superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ thin films based on trifluoroacetate solutions. Superconductor Science and Technology, 2012, 25, 123001.	1.8	155
59	Nanoscale strain-induced pair suppression as a vortex-pinning mechanism in high-temperature superconductors. Nature Materials, 2012, 11, 329-336.	13.3	298
60	Pinning Landscape Analysis in YBCO Films With Epitaxial and/or Non-Coherent BZO Nanoparticles. IEEE Transactions on Applied Superconductivity, 2011, 21, 3243-3246.	1.1	11
61	Vortex Dynamics in Nanostructured TFA-Grown YBCO Films Studied by Ac Susceptibility. IEEE Transactions on Applied Superconductivity, 2011, 21, 3189-3191.	1.1	2
62	Nanostructured Superconductors with Efficient Vortex Pinning. , 2011, , 303-349.		24
63	Interaction between solution derived BaZrO_3 nanodot interfacial templates and $\text{YBa}_2\text{Cu}_3\text{O}_7$ films leading to enhanced critical currents. Acta Materialia, 2011, 59, 2075-2082.	3.8	30
64	Perpendicular ac susceptibility and critical current density of distant superconducting twin films. Superconductor Science and Technology, 2011, 24, 075004.	1.8	3
65	Isotropic and anisotropic pinning in TFA-grown $\text{YBa}_2\text{Cu}_3\text{O}_7$ films with BaZrO_3 nanoparticles. Superconductor Science and Technology, 2011, 24, 125010.	1.8	31
66	Vortex oscillations in TFA-grown YBCO thin-films with BZO nanoparticles. Physica C: Superconductivity and Its Applications, 2010, 470, 2033-2039.	0.6	6
67	Vortex dynamics at high ac amplitudes of trifluoroacetate route grown $\text{YBa}_2\text{Cu}_3\text{O}_7$ thin films. Physical Review B, 2010, 81, .		
68	Intermediate phase evolution in YBCO thin films grown by the TFA process. Superconductor Science and Technology, 2010, 23, 014012.	1.8	41
69	Evolution of Metal-Trifluoroacetate Precursors in the Thermal Decomposition toward High-Performance $\text{YBa}_2\text{Cu}_3\text{O}_7$ Superconducting Films. Chemistry of Materials, 2010, 22, 1686-1694.	3.2	74
70	Vortex dynamics in thin films of $\text{YBa}_2\text{Cu}_3\text{O}_7$ three-dimensional nanoscale patterns. Physical Review B, 2009, 79, .		
71	Enhanced Vortex Pinning in YBCO Coated Conductors With BZO Nanoparticles From Chemical Solution Deposition. IEEE Transactions on Applied Superconductivity, 2009, 19, 3258-3261.	1.1	12
72	Growth of Chemical Solution Deposited $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{MOD}(\text{Ce}, \text{Zr})\text{O}_2$ Coated Conductors. IEEE Transactions on Applied Superconductivity, 2009, 19, 3212-3215.	1.1	14

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73	Vortex Breaking and Cutting in Type II Superconductors. Physical Review Letters, 2008, 101, 097002.	2.9	13
74	Simultaneous determination of grain and grain-boundary critical currents in YBa ₂ Cu ₃ O ₇ -coated conductors by magnetic measurements. Physical Review B, 2007, 75, .	1.1	31
75	Artificial magnetic granularity effects on patterned epitaxial YBa ₂ Cu ₃ O ₇ thin films. Applied Physics Letters, 2006, 88, 122502.	1.1	8
76	Grain and grain boundary vortex dynamics in YBa ₂ Cu ₃ O ₇ coated conductor by ac susceptibility. Journal of Applied Physics, 2007, 102, 073911.	1.1	11
77	Hysteretic Vortex Pinning in Superconductor-Ferromagnet Nanocomposites. Physical Review Letters, 2007, 98, 117003.	2.9	45
78	Magnetic vortex pinning in superconductor/ferromagnet nanocomposites. Superconductor Science and Technology, 2007, 20, S136-S140.	1.8	9
79	Progress towards all-chemical superconducting YBa ₂ Cu ₃ O ₇ -coated conductors. Superconductor Science and Technology, 2006, 19, S13-S26.	1.8	205
80	All-chemical YBa ₂ Cu ₃ O ₇ coated conductors on IBAD-YSZ stainless steel substrates. Superconductor Science and Technology, 2006, 19, L1-L4.	1.8	22
81	Correlation between grain and grain-boundary critical current densities in ex situ coated conductors with variable YBa ₂ Cu ₃ O ₇ layer thickness. Applied Physics Letters, 2006, 88, 122502.	1.5	17
82	New Microcrack Network Generation in TSMTG YBCO. Journal of Physics: Conference Series, 2006, 43, 397-400.	0.3	0
83	Crossover between Channeling and Pinning at Twin Boundaries in YBa ₂ Cu ₃ O ₇ Thin Films. Physical Review Letters, 2006, 97, 257002.	2.9	45
84	Porosity induced magnetic granularity in epitaxial YBa ₂ Cu ₃ O ₇ thin films. Physical Review B, 2006, 73, .	1.1	18
85	Grain and grain-boundary critical currents in coated conductors with noncorrelating YBa ₂ Cu ₃ O ₇ and substrate grain-boundary networks. Applied Physics Letters, 2006, 88, 132508.	1.5	9
86	Pinning regimes of grain boundary vortices in YBa ₂ Cu ₃ O ₇ coated conductors. Physical Review B, 2006, 73, .	1.1	24
87	Determination of the inter- and intra-granular critical currents in superconducting YBa ₂ Cu ₃ O ₇ welds. Superconductor Science and Technology, 2005, 18, 1227-1232.	1.8	10
88	Effect of Strain on Grain and Grain-Boundary Critical Currents of YBCO Coated Conductors. IEEE Transactions on Applied Superconductivity, 2005, 15, 2790-2793.	1.1	6
89	Magnetization and critical current of finite superconducting YBa ₂ Cu ₃ O ₇ rings. Physical Review B, 2005, 72, .	1.1	13
90	The identification of grain boundary networks of distinct critical current density in YBa ₂ Cu ₃ O ₇ coated conductors. Superconductor Science and Technology, 2004, 17, 1283-1288.	1.8	12

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91	Simultaneous inductive determination of grain and intergrain critical current densities of YBa ₂ Cu ₃ O _{7-x} coated conductors. Applied Physics Letters, 2004, 84, 230-232.	1.5	69
92	Comparison of ac susceptibility of YBa ₂ Cu ₃ O ₇ coated conductors and single crystals. Applied Physics Letters, 2004, 85, 5646-5648.	1.5	19
93	Chemical solution deposition: a path towards low cost coated conductors. Superconductor Science and Technology, 2004, 17, 1055-1064.	1.8	121
94	Chemical solution techniques for epitaxial growth of oxide buffer and YBa ₂ Cu ₃ O ₇ films. Journal of the European Ceramic Society, 2004, 24, 1831-1835.	2.8	14
95	Chemical solution growth of superconductors: a new path towards high critical current coated conductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 913-914.	0.6	4
96	Magnetic granularity analysis of YBCO coated conductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 866-868.	0.6	3
97	Inductive analysis of magnetic granularity effects in YBCO IBAD and RABiTS coated conductors. IEEE Transactions on Applied Superconductivity, 2003, 13, 2599-2602.	1.1	8
98	High quality YBa ₂ Cu ₃ O ₇ thin films grown by trifluoroacetates metalorganic deposition. Superconductor Science and Technology, 2003, 16, 45-53.	1.8	56
99	Influence of porosity on the critical currents of trifluoroacetate-MOD YBa ₂ /Cu ₃ /O ₇ films. IEEE Transactions on Applied Superconductivity, 2003, 13, 2504-2507.	1.1	38
100	Characterization of superconducting rings using an in-field hall probe magnetic mapping system. IEEE Transactions on Applied Superconductivity, 2003, 13, 3667-3670.	1.1	23
101	Melt growth and microstructure development of high critical current REBa ₂ Cu ₃ O ₇ superconductors with a natural mixture of rare earths. Superconductor Science and Technology, 2002, 15, 60-66.	1.8	6
102	Growth and microstructure of MTG REBa ₂ Cu ₃ O ₇ /REBaCuO ₅ with heavy rare earth elements. Physica C: Superconductivity and Its Applications, 2002, 372-376, 1119-1122.	0.6	8
103	Epitaxial nucleation and growth of buffer layers and Y123 coated conductors deposited by metal-organic decomposition. Physica C: Superconductivity and Its Applications, 2002, 372-376, 806-809.	0.6	9