Jose A Alarco

List of Publications by Year
in descending order

79 papers	1,325 citations	471371 17 h-index	377752 34 g-index
79 all docs	79 docs citations	79 times ranked	965 citing authors

#	Article	IF	Citations
1	Structural, electronic and optical properties of lead-free antimony-copper based hybrid double perovskites for photovoltaics and optoelectronics by first principles calculations. Computational Materials Science, 2021, 186, 110009.	1.4	30
2	Synthesis and Characterization of a Novel Hydrated Layered Vanadium(III) Phosphate Phase K₃V₃(PO₄)₄Â·H₂O: A Functional Cathode Material for Potassium-Ion Batteries. ACS Omega, 2021, 6, 1917-1929.	1.6	14
3	Effects of Al substitution by Si in Ti3AlC2 nanolaminate. Scientific Reports, 2021, 11, 3410.	1.6	27
4	Nanoscale differentiation of surfaces and cores for olivine phosphate particlesâ€"a key characteristic of practical battery materials. JPhys Energy, 2021, 3, 032004.	2.3	5
5	Validating the Electronic Structure of Vanadium Phosphate Cathode Materials. ACS Applied Materials & Interfaces, 2021, 13, 45505-45520.	4.0	15
6	THz/Far infrared synchrotron observations of superlattice frequencies in MgB₂. Physical Chemistry Chemical Physics, 2021, 23, 23922-23932.	1.3	2
7	Thermoelectric properties of phase pure boron carbide prepared by a solution-based method. Advances in Applied Ceramics, 2020, 119, 97-106.	0.6	11
8	Progress Towards a Universal Approach for Prediction of the Superconducting Transition Temperature. Journal of Superconductivity and Novel Magnetism, 2020, 33, 2287-2292.	0.8	6
9	Observation of Preferential Cation Doping on the Surface of LiFePO₄ Particles and Its Effect on Properties. ACS Applied Energy Materials, 2020, 3, 9158-9167.	2.5	28
10	Effects of Nanoscale Surface Lithium Depletion on the Optical Properties and Electronic Band Structures of Lithium Transition-Metal Phosphates. Journal of Physical Chemistry C, 2020, 124, 19969-19979.	1.5	5
11	Precision structural and phase analysis of boron carbide. Ceramics International, 2020, 46, 11033-11040.	2.3	4
12	Spectroscopic Evidence of Surface Li-Depletion of Lithium Transition-Metal Phosphates. ACS Applied Energy Materials, 2020, 3, 2856-2866.	2.5	12
13	Nanoscale characteristics of practical LiFePO4 materials - Effects on electrical, magnetic and electrochemical properties. Materials Characterization, 2020, 162, 110171.	1.9	12
14	Ab initio atomistic insights into lead-free formamidinium based hybrid perovskites for photovoltaics and optoelectronics. Computational Materials Science, 2019, 169, 109118.	1.4	50
15	Re-evaluation of experimental measurements for the validation of electronic band structure calculations for LiFePO₄ and FePO₄. RSC Advances, 2019, 9, 1134-1146.	1.7	33
16	Improving the Rate Capability of LiFePO₄ Electrode by Controlling Particle Size Distribution. Journal of the Electrochemical Society, 2019, 166, A4128-A4135.	1.3	11
17	A Complete and Accurate Description of Superconductivity of AlB2-Type Structures from Phonon Dispersion Calculations. Journal of Superconductivity and Novel Magnetism, 2018, 31, 727-731.	0.8	10
18	Phonon Dispersions as Indicators of Dynamic Symmetry Reduction in Superconductors. , 2018, , .		1

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19	Identification of superconductivity mechanisms and prediction of new materials using Density Functional Theory (DFT) calculations. Journal of Physics: Conference Series, 2018, 1143, 012028.	0.3	8
20	Spectroscopy of metal hexaborides: Phonon dispersion models. Journal of Raman Spectroscopy, 2018, 49, 1985-1998.	1.2	8
21	Electron Density Response to Phonon Dynamics in MgB₂: An Indicator of Superconducting Properties. Modeling and Numerical Simulation of Material Science, 2018, 08, 21-46.	0.5	6
22	Phonon dispersion anomalies and superconductivity in metal substituted MgB2. Computational Materials Science, 2017, 130, 191-203.	1.4	19
23	Nanojoint Formation between Ceramic Titanate Nanowires and Spot Melting of Metal Nanowires with Electron Beam. ACS Applied Materials & Interfaces, 2017, 9, 9143-9151.	4.0	6
24	Phonon dispersion models for MgB 2 with application of pressure. Physica C: Superconductivity and Its Applications, 2017, 536, 11-17.	0.6	13
25	Low temperature decomposition of metal borohydride drives autogenous synthesis of MgB₂. Superconductor Science and Technology, 2017, 30, 055004.	1.8	10
26	Computational prediction and experimental confirmation of rhombohedral structures in Bi_{1.5}CdM_{1.5}O₇ (M = Nb, Ta) pyrochlores. RSC Advances, 2017, 7, 15632-15643.	1.7	9
27	First hafnium-based MAX phase in the 312 family, Hf3AlC2: A first-principles study. Journal of Alloys and Compounds, 2017, 727, 616-626.	2.8	95
28	Morphology control in high yield boron carbide. Ceramics International, 2017, 43, 2650-2657.	2.3	27
29	Synthesis, Characterization, and Electronic Structure Studies of Cubic Bi1.5ZnTa1.5O7for Photocatalytic Applications. International Journal of Photoenergy, 2015, 2015, 1-8.	1.4	0
30	Electronic Structure Studies and Photocatalytic Properties of Cubic Bi1.5ZnNb1.5O7. International Journal of Photoenergy, 2015, 2015, 1-11.	1.4	1
31	Phonon anomalies predict superconducting T_cfor AlB₂-type structures. Physical Chemistry Chemical Physics, 2015, 17, 25090-25099.	1.3	28
32	In-Situ Carbon Control in the Preparation of Precursors to Boron Carbide by a Non-Aqueous Solution Technique. Journal of Materials Science and Engineering A, 2015, 5, .	0.0	0
33	Phonon modes of MgB₂: super-lattice structures and spectral response. Physical Chemistry Chemical Physics, 2014, 16, 24443-24456.	1.3	36
34	Synthesis of MgB2 at Low Temperature and Autogenous Pressure. Materials, 2014, 7, 3901-3918.	1.3	12
35	Coherent phonon decay and the boron isotope effect for MgB2. Physical Chemistry Chemical Physics, 2014, 16, 25386-25392.	1.3	17
36	Comparison of Functionals for Metal Hexaboride Band Structure Calculations. Modeling and Numerical Simulation of Material Science, 2014, 04, 53-69.	0.5	7

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37	Metal Hexaborides with Sc, Ti or Mn. Modeling and Numerical Simulation of Material Science, 2013, 03, 158-169.	0.5	9
38	A phenomenological model for the structureâ€“composition relationship of the high Tc cuprates based on simple chemical principles. Physica C: Superconductivity and Its Applications, 2012, 476, 32-47.	0.6	1
39	A nanometre-scale non-periodic structural variation in high temperature superconducting ceramics and the implications for properties. Journal of Microscopy, 2001, 202, 495-517.	0.8	6
40	Observation of exsolution textures within Baâ€“Cuâ€“O-rich solidified melts of Yâ€“Baâ€“Cuâ€“O materials and their relationship to Y123 nucleation and texturing. Physica C: Superconductivity and Its Applications, 2000, 331, 201-215.	0.6	7
41	Effects of PtO2 and CeO2 additives on the microstructures of the quenched melts of Yâ€“Baâ€“Cuâ€“O materials. Physica C: Superconductivity and Its Applications, 2000, 336, 43-56.	0.6	11
42	Melt textured Y123 bulk and thick film. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2485-2486.	0.6	0
43	The Measurement Of Subtle Structural Changes In Yba2cu3O7-x By Processing High Resolution Tem Images. Microscopy and Microanalysis, 1999, 5, 196-197.	0.2	0
44	Bi-2223 precursor billets for PIT wire production. IEEE Transactions on Applied Superconductivity, 1999, 9, 2581-2584.	1.1	0
45	Phase composition of the rapidly quenched melt of YBa2Cu3O7â^’y+20 mol% Y2BaCuO5. Physica C: Superconductivity and Its Applications, 1999, 312, 21-27.	0.6	6
46	Comments on the phase diagrams and crystallisation paths of Yâ€“Baâ€“Cuâ€“O materials. Physica C: Superconductivity and Its Applications, 1999, 325, 181-200.	0.6	5
47	Sintering and densification mechanisms of Y2BaCuO5 pellets. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 64, 130-136.	1.7	4
48	Binder effect on microstructure and properties of YBa2Cu3O7â^’x extruded wires. Physica C: Superconductivity and Its Applications, 1998, 298, 159-165.	0.6	3
49	Microstructural studies of quenched partially-melted Y-123 materials and Y-123 with Y-211, PtO2 and CeO2 additions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1998, 53, 138-142.	1.7	6
50	Synthesis and characterisation of nanoscale magnesium oxide powders and their application in thick films of Bi2Sr2CaCu2O8. Materials Letters, 1998, 34, 133-142.	1.3	122
51	Studies of the phase evolution of YBCO materials with different additives. Superconductor Science and Technology, 1998, 11, 963-967.	1.8	3
52	Phase evolution of the quenched melt of with 20 mol% additions. Superconductor Science and Technology, 1998, 11, 830-836.	1.8	8
53	Microstructural characterization of quenched melt-textured YBa2Cu3O7â^’Î´ materials. Journal of Materials Research, 1997, 12, 624-635.	1.2	14
54	Partial melt processing and electrical properties of Bi - Sr - Ca - Cu - O superconducting thick films on (100) MgO substrates. Superconductor Science and Technology, 1997, 10, 330-336.	1.8	10

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55	Progress towards slip-casting YBa2Cu3O7 âˆ’ x monoliths. Materials Letters, 1997, 30, 199-208.	1.3	1
56	Microstructural investigation of Biâ€"Srâ€"Caâ€"Cuâ€"oxide thick films on alumina substrates. Journal of Materials Science, 1997, 32, 3759-3764.	1.7	7
57	Reaction products between Bi-Sr-Ca-Cu-oxide thick films and alumina substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 45, 102-107.	1.7	2
58	Fine-grained Y2Cu2O5 powder from a co-precipitated precursor. Materials Letters, 1996, 26, 89-96.	1.3	5
59	Microstructure and properties of artificial grain boundaries in epitaxial YBA2Cu3O7âˆ’Î´ thin films grown on [001] tilt Yî—¸ZrO2 bicrystals. Physica C: Superconductivity and Its Applications, 1995, 247, 263-279.	0.6	28
60	Shape-formed ceramic superconductors by slip-casting. Journal of Electronic Materials, 1995, 24, 1851-1854.	1.0	7
61	Analysis and prediction of the critical current density across [001]-tiltYBa2Cu3O7âˆ’Î´grain boundaries of arbitrary misorientation angles. Physical Review B, 1995, 52, 13625-13630.	1.1	30
62	Manufacture of fine grained Y2BaCuO5 powder by co-precipitation. Materials Letters, 1995, 24, 181-188.	1.3	10
63	YBa2Cu3O7âˆ’xfilms on yttriaâ€stabilized ZrO2substrates: Influence of the substrate morphology. Journal of Applied Physics, 1994, 75, 7958-7965.	1.1	27
64	Early stages of growth of YBa2Cu3O7âˆ’Î´highTcsuperconducting films on (001) Yâ€ZrO2substrates. Journal of Applied Physics, 1994, 75, 3202-3204.	1.1	37
65	Microstructure of an artificial grain boundary weak link in an YBa2Cu3O7âˆ’Ïƒ thin film grown on a (100)(110), [001]-tilt Y-ZrO2 bicrystal. Ultramicroscopy, 1993, 51, 239-246.	0.8	58
66	YBa2Cu3O7/NdGaO3/YBa2Cu3O7 trilayers by modified offâ€axis sputtering. Journal of Applied Physics, 1993, 73, 7543-7548.	1.1	5
67	Growth and properties of a multilayer system based on Y1Ba2Cu3Oxand amorphous Yâ€ZrO2. Journal of Applied Physics, 1992, 72, 199-202.	1.1	7
68	Effects of substrate temperature on the microstructure of YBa2Cu3O7âˆ’Î´ films grown on (001) Yâ€ZrO2 substrates. Applied Physics Letters, 1992, 61, 723-725.	1.5	35
69	Electropolishing of polycrystalline YBa2Cu3O7âˆ’Î´ to meet the need for sharp needle geometry. Surface Science, 1992, 266, 538-544.	0.8	3
70	Very thin YBaCuO films made by coevaporation. , 1992, , 421-426.		0
71	YBaCuO thin films on Yttria-stabilized Zirconia: growth and properties. , 1992, , 721-726.		0
72	Effects of composition and processing on the microstructure and properties of 1-2-3 superconductors. Micron and Microscopica Acta, 1991, 22, 105-106.	0.2	1

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73	YBCO thin films on Yttria stabilized Zirconia and LaAlO3-growth and properties. Physica C: Superconductivity and Its Applications, 1991, 185-189, 2017-2018.	0.6	0
74	Properties of artificial grain boundary weak links grown on Y-ZrO2bicrystals. Superconductor Science and Technology, 1991, 4, 439-441.	1.8	13
75	High quality YBCO thin films - laser deposition, co-evaporation, and device fabrication. Physica Scripta, 1991, 44, 95-101.	1.2	4
76	Weak links and dc SQUIDS on artificial nonsymmetric grain boundaries in YBa2Cu3O7â˘Î´. Applied Physics Letters, 1991, 59, 3030-3032.	1.5	244
77	Microstructures of YBa2Cu3O7-Î´ superconductors. Micron and Microscopica Acta, 1990, 21, 181.	0.2	0
78	Study of in situ laser deposited YBCO thin films. Journal of the Less Common Metals, 1990, 164-165, 383-390.	0.9	6
79	Insights from Systematic DFT Calculations on Superconductors. , 0, , .		2