

# Joaquim M Vieira

## List of Publications by Year in descending order

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2213  
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#	ARTICLE	IF	CITATIONS
1	Effect of diamagnetic Ca, Sr, Pb, and Ba substitution on the crystal structure and multiferroic properties of the BiFeO <sub>3</sub> perovskite. Journal of Applied Physics, 2008, 103, .	2.5	316
2	Magnetocaloric effect in Er- and Eu-substituted ferromagnetic La-Sr manganites. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 686-689.	2.3	172
3	Crystal structure and multiferroic properties of Gd-substituted BiFeO <sub>3</sub> . Applied Physics Letters, 2008, 93, .	3.3	172
4	Synthesis and multiferroic properties of Bi <sub>0.8</sub> A <sub>0.2</sub> FeO <sub>3</sub> (A=Ca,Sr,Pb) ceramics. Applied Physics Letters, 2007, 90, 242901.	3.3	167
5	Doping strategies for increased performance in BiFeO <sub>3</sub> . Journal of Magnetism and Magnetic Materials, 2009, 321, 1692-1698.	2.3	161
6	Effect of Gd substitution on the crystal structure and multiferroic properties of BiFeO <sub>3</sub> . Acta Materialia, 2009, 57, 5137-5145.	7.9	144
7	Intrinsic nature of the magnetization enhancement in heterovalently doped Bi <sub>1-x</sub> A <sub>x</sub> FeO <sub>3</sub> (A=Ca, Sr, Pb, Ba) multiferroics. Journal Physics D: Applied Physics, 2008, 41, 102003.	2.8	88
8	Weak ferromagnetism in diamagnetically-doped Bi <sub>1-x</sub> A <sub>x</sub> FeO <sub>3</sub> (A=Ca, Sr, Pb, Ba) multiferroics. Materials Letters, 2008, 62, 1927-1929.	2.6	80
9	Kinetics of Hot-Pressing: The Semilogarithmic Law. Journal of the American Ceramic Society, 1984, 67, 245-249.	3.8	61
10	Interpenetrating microstructure and fracture mechanism of NiAl/TiC composites by pressureless melt infiltration. Materials Letters, 2004, 58, 1761-1765.	2.6	43
11	Crystal structure and magnetic properties of Bi <sub>0.8</sub> (Gd <sub>1-x</sub> Bax) <sub>0.2</sub> FeO <sub>3</sub> (x= 0, 0.5, 1) multiferroics. Journal Physics D: Applied Physics, 2009, 42, 045418.	2.8	40
12	Phase transformation kinetics during thermal annealing of LFZ Bi <sub>1-x</sub> Sr <sub>x</sub> Ca <sub>1-x</sub> Cu <sub>x</sub> O superconducting fibers in the range 800-870°C. Physica C: Superconductivity and Its Applications, 1999, 323, 23-41.	1.2	34
13	The effect of chemical distribution on the magnetocaloric effect: A case study in second-order phase transition manganites. Journal of Non-Crystalline Solids, 2008, 354, 5301-5303.	3.1	34
14	Resistance of Si <sub>3</sub> N <sub>4</sub> ceramic tools to thermal and mechanical loading in cutting of iron alloys. Wear, 1991, 148, 69-89.	3.1	28
15	Enhancement of maximum energy product in exchange-coupled BaFe <sub>12</sub> O <sub>19</sub> /Fe <sub>3</sub> O <sub>4</sub> core-shell-like nanocomposites. Journal of Alloys and Compounds, 2019, 806, 120-126.	5.5	28
16	Sliding speed-temperature wear transition maps for Si <sub>3</sub> N <sub>4</sub> /iron alloy couples. Wear, 2001, 250, 293-298.	3.1	27
17	Tribooxidational Effects on Friction and Wear Behavior of Silicon Nitride/Tool Steel and Silicon Nitride/Gray Cast Iron Contacts. Journal of the American Ceramic Society, 1999, 82, 953-960.	3.8	26
18	High strength TiC matrix Fe <sub>28</sub> Al toughened composites prepared by spontaneous melt infiltration. Journal of the European Ceramic Society, 2006, 26, 3853-3859.	5.7	25

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19	Anomalous low-field magnetization in La <sub>2/3</sub> Ca <sub>1/3</sub> MnO <sub>3</sub> near the critical point: Stable clusters?. Journal of Applied Physics, 1998, 83, 7154-7156.	2.5	24
20	Electrical field freezing effect on laser floating zone (LFZ)-grown Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>2</sub> Cu <sub>4</sub> O <sub>11</sub> superconducting fibres. Superconductor Science and Technology, 2004, 17, 612-619.	3.5	24
21	Relationship between flexural strength and surface roughness for hot-pressed Si <sub>3</sub> N <sub>4</sub> self-reinforced ceramics. Journal of the European Ceramic Society, 2000, 20, 1345-1353.	5.7	23
22	Diffusion phenomena and crystallization path during the growth of LFZ Bi-Sr-Ca-Cu-O superconducting fibres. Superconductor Science and Technology, 2001, 14, 910-920.	3.5	23
23	Discontinuous transition effects in manganites: magnetization study in the paramagnetic phase. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 655-658.	2.3	23
24	Anisotropic electrical transport in epitaxial La <sub>2/3</sub> Ca <sub>1/3</sub> MnO <sub>3</sub> thin films. Journal of Applied Physics, 2000, 87, 5570-5572.	2.5	22
25	Tricritical points in La-based ferromagnetic manganites. Journal of Applied Physics, 2003, 93, 7646-7648.	2.5	22
26	Microstructure, toughness and flexural strength of self-reinforced silicon nitride ceramics doped with yttrium oxide and ytterbium oxide. Journal of Microscopy, 2001, 201, 238-249.	1.8	21
27	Infiltration of SiC preforms with iron silicide melts: microstructures and properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 359, 343-349.	5.6	21
28	Strength improvement and fracture mechanism in Fe <sub>40</sub> Al/TiC composites with high content of TiC. Intermetallics, 2005, 13, 460-466.	3.9	19
29	Modeling of chemical wear in ferrous alloys/ silicon nitride contacts during high speed cutting. Acta Materialia, 1998, 46, 2501-2507.	7.9	18
30	Coexistence of spontaneous ferroelectricity and weak ferromagnetism in Bi <sub>0.8</sub> Pb <sub>0.2</sub> FeO <sub>2.9</sub> perovskite. Journal of Physics Condensed Matter, 2008, 20, 155207.	1.8	18
31	SiC whisker reinforced multi-carbides composites prepared from B <sub>4</sub> C and pyrolyzed rice husks via reactive infiltration. Ceramics International, 2012, 38, 3519-3527.	4.8	18
32	Microstructure and mechanical properties of multi-carbides/(Al, Si) composites derived from porous B <sub>4</sub> C preforms by reactive melt infiltration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 551, 200-208.	5.6	17
33	Substrate, annealing, and Mn excess effects on La <sup>2+</sup> Ca <sup>2+</sup> MnO <sub>3</sub> thin films grown by metalorganic chemical vapor deposition: A way to room-temperature T <sub>c</sub> . Journal of Applied Physics, 1999, 85, 5411-5413.	2.5	16
34	Enhancement of superconductivity in LFZ-grown BSCCO fibres by steeper axial temperature gradients. Applied Surface Science, 2012, 258, 9175-9180.	6.1	16
35	Magnetic structure of an incommensurate phase of La-doped BiFe <sub>3</sub> MnO <sub>5</sub> : Role of antisymmetric exchange interactions. Physical Review B, 2015, 92, ..	3.2	15
36	Cast iron corrosion protection with chemically modified Mg Al layered double hydroxides synthesized using a novel approach. Surface and Coatings Technology, 2019, 375, 158-163.	4.8	15

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37	Radial inhomogeneities induced by fiber diameter in electrically assisted LFZ growth of Bi-2212. Applied Surface Science, 2009, 255, 5503-5506.	6.1	14
38	A high-strength SiCw/SiCâ€“Si composite derived from pyrolyzed rice husks by liquid silicon infiltration. Journal of Materials Science, 2012, 47, 4921-4927.	3.7	14
39	Friction measurements on hot filament CVD diamond films deposited on etched tungsten carbide surfaces. Diamond and Related Materials, 1995, 4, 730-734.	3.9	13
40	The formation of coreâ€“rim structures in Fe40Al/(TiCâ€“TiNâ€“WC) cermets produced by pressureless melt infiltration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 371, 277-282.	5.6	13
41	Anomalous magnetic behavior in La2/3Ca1/3MnO3 near the critical point: stable clusters and crossover to uniform ferromagnetism. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 837-839.	2.3	12
42	Hot hardness of Si3N4-based materials. Journal of Materials Science, 1995, 30, 5531-5536.	3.7	11
43	Pulling rate and current intensity competition in an electrically assisted laser floating zone. Superconductor Science and Technology, 2009, 22, 065016.	3.5	11
44	LFZ fibre texture modification induced by electrical polarization. Physica C: Superconductivity and Its Applications, 2004, 408-410, 915-916.	1.2	10
45	Crystal structure, magnetic and dielectric behavior of h-LuMn O3Â± ceramics (0.95â€“1.04). Journal of Magnetism and Magnetic Materials, 2015, 395, 303-311.	2.3	10
46	Hyperfine Fields at the Cd Site in La0.67Cd0.25MnO3 CMR Manganites. Hyperfine Interactions, 2001, 133, 89-94.	0.5	8
47	Reactive infiltration processing of SiC/Feâ€“Si composites using preforms made of coked rice husks and SiC powder. Ceramics International, 2013, 39, 3831-3842.	4.8	8
48	Bonded ferrite-based exchange-coupled nanocomposite magnet produced by Warm compaction. Journal Physics D: Applied Physics, 2020, 53, 494003.	2.8	8
49	Carbothermal reduction and nitridation of silica: nuclei planar growth controlled by silicon monoxide diffusion on the reducer surface. Journal of Materials Processing Technology, 1999, 92-93, 112-117.	6.3	7
50	Thermochemistry of contacts between silicon nitride ceramics and steels. Acta Materialia, 2000, 48, 4659-4665.	7.9	7
51	On the half unit cell intergrowth of Bi2Sr2Ca3Cu4O12 with other superconducting phases in two-step annealed LFZ fibres. Physica C: Superconductivity and Its Applications, 2003, 398, 31-36.	1.2	7
52	Trapping control of phase development in zone melting of Biâ€“Srâ€“Caâ€“Cuâ€“O superconducting fibres. Superconductor Science and Technology, 2003, 16, 392-397.	3.5	7
53	The role of nitrogen in the intergranular glass phase of Si3N4 on high temperature applications and wear. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 168, 55-59.	5.6	6
54	Properties of epitaxial LaCaMnO laser ablated thin films on (1 0 0) and (1 1 0) SrTiO3 substrates. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 495-497.	2.3	6

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55	Structural and magnetic study of self-doped $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ . Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1753-1755.	2.3	6
56	The effect of current direction on superconducting properties of BSCCO fibres grown by an electrically assisted laser floating zone process. Superconductor Science and Technology, 2006, 19, 15-21.	3.5	6
57	$\text{Bi-Sr-Ca-Cu-O}$ superconducting fibres processed by the laser floating zone technique under different electrical current intensities. Superconductor Science and Technology, 2006, 19, 373-380.	3.5	6
58	Nanodomains Coupled to Ferroelectric Domains Induced by Lattice Distortion in Self-Doped $\text{LuMnO}_3$ Hexagonal Ceramics. Journal of Physical Chemistry C, 2016, 120, 21897-21904.	3.1	6
59	Crystallization process, phase chemistry and transport properties of superconducting fibers prepared by the LFZ method followed by isothermal annealing. Physica C: Superconductivity and Its Applications, 1994, 235-240, 513-514.	1.2	5
60	Grain growth in synthetic and natural dolomas. Ceramics International, 1998, 24, 163-173.	4.8	5
61	Annealing time effect on Bi-2223 phase development in LFZ and EALFZ grown superconducting fibres. Applied Surface Science, 2006, 252, 4957-4963.	6.1	5
62	Interaction of multiferroic properties and interfaces in hexagonal $\text{LuMnO}_3$ ceramics. Journal Physics D: Applied Physics, 2017, 50, 055304.	2.8	5
63	Development of ferroelectric domains and topological defects in vacancy doped ceramics of $\text{h-LuMnO}_3$ . Journal of Applied Physics, 2017, 122, .	2.5	5
64	High-Power Ultrasonic Synthesis and Magnetic-Field-Assisted Arrangement of Nanosized Crystallites of Cobalt-Containing Layered Double Hydroxides. ChemEngineering, 2019, 3, 62.	2.4	5
65	Phase Transitions in the Metastable Perovskite Multiferroics $\text{BiCrO}_3$ and $\text{BiCr}_{0.9}\text{Sc}_{0.1}\text{O}_3$ : A Comparative Study. Inorganic Chemistry, 2020, 59, 8727-8735.	4.0	5
66	Interplay of Magnetic Properties and Doping in Epitaxial Films of $\text{h-REFeO}_3$ Multiferroic Oxides. Small, 2021, 17, e2005700.	10.0	5
67	Preparation of superconductors of the $\text{BiSrCaCuO}$ system by glass crystallization. Journal of the Less Common Metals, 1989, 150, 305-310.	0.8	4
68	Non-linear conduction in $\text{LaCaMnO}_3$ thin films: interface tunneling effects. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 942-944.	2.3	4
69	The reaction rate at $\text{Si}_3\text{N}_4/\text{steel}$ interfaces as a function of sintering aids. Journal of the European Ceramic Society, 2002, 22, 2561-2570.	5.7	4
70	Tuning of Magnetocaloric Effect in Ferromagnetic La-Sr Manganites through Er and Eu Doping. Materials Science Forum, 2006, 514-516, 299-303.	0.3	4
71	Study of multi-carbide $\text{B}_4\text{C-SiC}/(\text{Al, Si})$ reaction infiltrated composites by SEM with EBSD. IOP Conference Series: Materials Science and Engineering, 2014, 55, 012001.	0.6	4
72	Deposition of Magnetoresistive $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ Thin Films by Aerosol-Assisted MOCVD. Key Engineering Materials, 1997, 132-136, 1416-1419.	0.4	3

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73	Growth of the Bi-2223 phase after a short nucleation stage at high temperature. <i>Physica B: Condensed Matter</i> , 2001, 294-295, 700-704.	2.7	3
74	Microstructural characteristics of NiAl/TiC composites with high TiC content prepared by pressureless melt infiltration. <i>Journal of Materials Science</i> , 2004, 39, 6385-6387.	3.7	3
75	Enhancement of Bi-2223 phase formation by electrical assisted laser floating zone technique. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 416-418.	4.0	3
76	The Oxidation Behaviour of TiC Matrix Ni <sub>3</sub> Al and Fe <sub>40</sub> Al Toughened Composites at High Temperatures. <i>Materials Science Forum</i> , 2006, 514-516, 657-661.	0.3	3
77	Diffusion, Intrusion and Reaction between Al-Containing Intermetallics and TiC Sintered Body during Thermal Pressure Holding. <i>Rare Metal Materials and Engineering</i> , 2012, 41, 203-207.	0.8	3
78	Interdiffusion Processes in High-Coercivity RF-Sputtered Alnico Thin Films on Si Substrates. <i>Jom</i> , 2017, 69, 1427-1431.	1.9	3
79	Processing and Mechanical Properties of Dual-Carbide (B <sub>4</sub> C, SiC), Dual-Metallic Phases (Al, Si) Infiltrated Composites. <i>Materials Today: Proceedings</i> , 2019, 16, 374-383.	1.8	3
80	The orthorhombic-tetragonal morphotropic phase boundary in high-pressure synthesized BiMg <sub>0.5</sub> Ti <sub>0.5</sub> O <sub>3</sub> –BiZn <sub>0.5</sub> Ti <sub>0.5</sub> O <sub>3</sub> perovskite solid solutions. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 161, 110392.	4.0	3
81	Magnetic Behaviour of Perovskite Compositions Derived from BiFeO <sub>3</sub> . <i>Magnetochemistry</i> , 2021, 7, 151.	2.4	3
82	Bi-Ca-Sr-Cu-O superconductors obtained by glass crystallisation; Effect of potassium doping. <i>Physica C: Superconductivity and Its Applications</i> , 1989, 159, 273-276.	1.2	2
83	Densification and Microstructural Evolution in a Reactive Silicon Nitride/Alumina Platelet System. <i>Key Engineering Materials</i> , 1996, 127-131, 377-384.	0.4	2
84	Mechanical Properties and Microstructure of Fe <sub>40</sub> Al/TiC Composites with Low Content of Intermetallic. <i>Materials Science Forum</i> , 2004, 455-456, 239-243.	0.3	2
85	The Effects of Ca and Mn Excess Co-Doping in CMR Manganites Solid Solution Structures. <i>Materials Science Forum</i> , 2006, 514-516, 294-298.	0.3	2
86	Phase Separation of La <sub>0.70-x</sub> Er <sub>x</sub> Sr <sub>0.30</sub> MnO <sub>3</sub> and its Effect on Magnetic and Magnetocaloric Properties. <i>Materials Science Forum</i> , 0, 587-588, 338-342.		2
87	Nanoscale analysis of dispersive ferroelectric domains in bulk of hexagonal multiferroic ceramics. <i>Materials Characterization</i> , 2018, 145, 347-352.	4.4	2
88	Link of Weak Ferromagnetism to Emergence of Topological Vortices in Bulk Ceramics of h-LuMnxO <sub>3</sub> Manganite. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6158-6166.	3.1	2
89	Magnetic-field-assisted deposition of self-assembling crystallite layers of Co <sup>2+</sup> -containing layered double hydroxides. <i>Chemical Communications</i> , 2021, 57, 6899-6902.	4.1	2
90	Giant Magnetoresistance in La <sub>1-x</sub> Ca <sub>x</sub> MnO <sub>3</sub> Ceramics and Thin Films. <i>Key Engineering Materials</i> , 1997, 132-136, 1412-1415.	0.4	1

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91	Deposition of LaCaMnO <sub>3</sub> thin films using aerosol-assisted metalorganic chemical vapor deposition (MOCVD) substrate and annealing effects. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 490-492.	2.3	1
92	The Effect of Annealing Temperature on the Transport Properties of BSCCO Fibres Grown by LFZ and EALFZ. Materials Science Forum, 2006, 514-516, 338-342.	0.3	1
93	The Growth of SiC Crystals from CoSi Molten Alloy Fluxes. Materials Science Forum, 2006, 514-516, 343-347.	0.3	1
94	Correlation between Ionic Radius of Substituting Element and Magnetic Properties of Bi <sub>1-x</sub> A <sub>x</sub> FeO <sub>3-2x/2</sub> (A= Ca, Sr, Pb, Ba) Multiferroics. Solid State Phenomena, 0, 152-153, 131-134.	0.3	1
95	EMAS 2013 Workshop: 13th European Workshop on Modern Developments and Applications in Microbeam Analysis. IOP Conference Series: Materials Science and Engineering, 2014, 55, 011001.	0.6	1
96	Assessing Segregation Effects on Multiferroic Properties of Antiferromagnetic-Weak Ferromagnetic Coupled Systems by Analytical HRTEM. Microscopy and Microanalysis, 2016, 22, 58-59.	0.4	1
97	DEPENDENCE OF THE DENSIFICATION ON GRAIN GROWTH AND ON AGGLOMERATION IN SINTERING OF DOLOMITE. Journal De Physique Colloque, 1986, 47, C1-435-C1-440.	0.2	1
98	Metastable Superstructures in RuSr <sub>2</sub> Gd <sub>1.4</sub> Ce <sub>0.6</sub> Cu <sub>2</sub> O <sub>10-<math>\delta</math></sub> Superconductor Based on TEM Observation at Room Temperature. Materials Research Society Symposia Proceedings, 2001, 689, 1.	0.1	0
99	Towards the Preparation of Superconductor Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8+<math>\delta</math></sub> Films by Electrodeposition. Key Engineering Materials, 2002, 230-232, 144-147.	0.4	0
100	Subsurface Damage in Abrasive Machining of Self-Reinforced Si <sub>3</sub> N <sub>4</sub> Composites. Key Engineering Materials, 2002, 230-232, 263-266.	0.4	0
101	Substrate and Composition Effects on BSCCO Thin Films Deposited by Aerosol MOCVD. Key Engineering Materials, 2002, 230-232, 173-176.	0.4	0
102	On the Half Unit Cell Intergrowth of Bi <sub>2</sub> Sr <sub>2</sub> Ca <sub>3</sub> Cu <sub>4</sub> O <sub>x</sub> with Other Superconducting Phases in Two-step Annealed LFZ Fibers. Microscopy and Microanalysis, 2002, 8, 1352-1353.	0.4	0
103	Ion beam studies of single crystalline manganite thin films. Nuclear Instruments & Methods in Physics Research B, 2004, 219-220, 933-937.	1.4	0
104	Preparation and Properties of New Superconductor Material MgB <sub>2</sub> . Materials Science Forum, 2006, 514-516, 333-337.	0.3	0
105	Effect of Diamagnetic A <sup>2+</sup> Substitution on the Magnetic and Ferroelectric Properties of the Bi <sup>1-x</sup> A <sup>x</sup> FeO <sub>3</sub> Multiferroics. Materials Research Society Symposia Proceedings, 2007, 1034, 182.	0.1	0
106	XRD, SEM and Petrologic Characterization of a L4-L5 Ordinary Chondrite Meteorite. Materials Science Forum, 2012, 730-732, 170-175.	0.3	0
107	Dielectric and Infrared Spectroscopy Characterization of Co <sup>Al</sup> Layered Double Hydroxides. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100106.	1.8	0
108	Comparative Optic Studies of Cobalt-Based Layered Double Hydroxides with Nitrate and Carbonate Anions and Co/Al ratio n = 2, 3, 4, ., 2021, ., .		0

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109	Whiskerâ€”Reinforced Composites. , 1991, , 132-156.		0
110	Phase Transformation During Hot-Pressing of Si <sub>3</sub> N <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub> (P) Composite Materials. , 1997, , 229-237.		0
111	SYNTHESIS, CRYSTAL STRUCTURE, AND MAGNETIC PROPERTIES OF LANTHANUM-STRONTIUM MANGANITES CONTAINING NICKEL IONS. High Temperature Material Processes, 2019, 23, 337-344.	0.6	0