Fernando Rubio-Marcos

List of Publications by Year
in descending order

117	3,865	117625 34	149698 56
papers	citations	h-index	g-index

123	123	123	3769
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sintering and properties of lead-free (K,Na,Li)(Nb,Ta,Sb)O3 ceramics. Journal of the European Ceramic Society, 2007, 27, 4125-4129.	5.7	184
2	Long lasting phosphors: SrAl2O4:Eu, Dy as the most studied material. Renewable and Sustainable Energy Reviews, 2018, 81, 2759-2770.	16.4	181
3	Ferroelectric domain wall motion induced by polarized light. Nature Communications, 2015, 6, 6594.	12.8	138
4	Effect of ZnO on the structure, microstructure and electrical properties of KNN-modified piezoceramics. Journal of the European Ceramic Society, 2009, 29, 3045-3052.	5.7	127
5	Lead-Free Piezoceramics: Revealing the Role of the Rhombohedralâ€“Tetragonal Phase Coexistence in Enhancement of the Piezoelectric Properties. ACS Applied Materials & Interfaces, 2015, 7, 23080-23088.	8.0	122
6	Novel hierarchical Co3O4/ZnO mixtures by dry nanodispersion and their catalytic application in the carbonylation of glycerol. Journal of Catalysis, 2010, 275, 288-293.	6.2	120
7	Feasible integration in asphalt of piezoelectric cymbals for vibration energy harvesting. Energy Conversion and Management, 2016, 112, 246-253.	9.2	115
8	Correlation between the piezoelectric properties and the structure of leadâ€free KNNâ€modified ceramics, studied by Raman Spectroscopy. Journal of Raman Spectroscopy, 2011, 42, 639-643.	2.5	101
9	High spatial resolution structure of (K,Na)NbO3 lead-free ferroelectric domains. Journal of Materials Chemistry, 2012, 22, 9714.	6.7	97
10	Reversible optical control of macroscopic polarization in ferroelectrics. Nature Photonics, 2018, 12, 29-32.	31.4	97
11	Understanding the piezoelectric properties in potassium-sodium niobate-based lead-free piezoceramics: Interrelationship between intrinsic and extrinsic factors. Journal of the European Ceramic Society, 2017, 37, 3501-3509.	5.7	90
12	Role of sintering time, crystalline phases and symmetry in the piezoelectric properties of lead-free KNN-modified ceramics. Materials Chemistry and Physics, 2010, 123, 91-97.	4.0	82
13	Effect of stoichiometry and milling processes in the synthesis and the piezoelectric properties of modified KNN nanoparticles by solid state reaction. Journal of the European Ceramic Society, 2010, 30, 2763-2771.	5.7	79
14	High Strain in (K,Na)NbO₃-Based Lead-Free Piezoelectric Fibers. Chemistry of Materials, 2014, 26, 3838-3848.	6.7	79
15	Evolution of the intergranular phase during sintering of CaCu3Ti4O12 ceramics. Journal of the European Ceramic Society, 2010, 30, 737-742.	5.7	77
16	Effects of Poling Process on KNNâ€Modified Piezoceramic Properties. Journal of the American Ceramic Society, 2010, 93, 318-321.	3.8	73
17	Properties related phase evolution in porcelain ceramics. Journal of the European Ceramic Society, 2007, 27, 4065-4069.	5.7	70
18	Ferroelectric domain structure of lead-free potassium-sodium niobate ceramics. Journal of the European Ceramic Society, 2011, 31, 1861-1864.	5.7	68

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19	Original Synthetic Route To Obtain a SrAl₂O₄ Phosphor by the Molten Salt Method: Insights into the Reaction Mechanism and Enhancement of the Persistent Luminescence. Inorganic Chemistry, 2015, 54, 9896-9907.	4.0	59
20	Energy Product Enhancement in Imperfectly Exchangeâ€Coupled Nanocomposite Magnets. Advanced Electronic Materials, 2016, 2, 1500365.	5.1	47
21	Effect of MnO doping on the structure, microstructure and electrical properties of the (K,Na,Li)(Nb,Ta,Sb)O3 lead-free piezoceramics. Journal of Alloys and Compounds, 2011, 509, 8804-8811.	5.5	43
22	Structure, microstructure and electrical properties of Cu2+ doped (K,Na,Li)(Nb,Ta,Sb)O3 piezoelectric ceramics. Ceramics International, 2013, 39, 4139-4149.	4.8	43
23	Structural, microstructural and electrical properties evolution of (K,Na,Li)(Nb,Ta,Sb)O3 lead-free piezoceramics through NiO doping. Journal of the European Ceramic Society, 2011, 31, 2309-2317.	5.7	42
24	New concepts for process intensification in the conversion of glycerol carbonate to glycidol. Applied Catalysis B: Environmental, 2013, 129, 575-579.	20.2	42
25	Extrinsic contribution and non-linear response in lead-free KNN-modified piezoceramics. Journal Physics D: Applied Physics, 2009, 42, 025402.	2.8	41
26	Graphene-encapsulated aluminium oxide nanofibers as a novel type of nanofillers for electroconductive ceramics. Journal of the European Ceramic Society, 2015, 35, 4017-4021.	5.7	41
27	Insights into the room temperature magnetism of ZnOâˆ•Co3O4 mixtures. Journal of Applied Physics, 2008, 103, 083905.	2.5	40
28	Piezoceramics properties as a function of the structure in the system (K,Na,Li)(Nb,Ta,Sb)O₃. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1835-1842.	3.0	40
29	ZnO Nanoporous Spheres with Broad-Spectrum Antimicrobial Activity by Physicochemical Interactions. ACS Applied Nano Materials, 2018, 1, 3214-3225.	5.0	39
30	Sintering behaviour of nanostructured glass-ceramic glazes. Ceramics International, 2010, 36, 1845-1850.	4.8	38
31	Monitoring the catalytic synthesis of glycerol carbonate by real-time attenuated total reflection FTIR spectroscopy. Applied Catalysis A: General, 2011, 409-410, 106-112.	4.3	38
32	Exploring different sintering atmospheres to reduce nonlinear response of modified KNN piezoceramics. Journal of the European Ceramic Society, 2013, 33, 825-831.	5.7	38
33	Some clues about the interphase reaction between ZnO and MnO2 oxides. Journal of Solid State Chemistry, 2009, 182, 1211-1216.	2.9	37
34	Revealing the role of cationic displacement in potassiumâ€“sodium niobate lead-free piezoceramics by adding W⁶⁺ ions. Journal of Materials Chemistry C, 2015, 3, 4168-4178.	5.5	36
35	Designing nanostructured strontium aluminate particles with high luminescence properties. Journal of Materials Chemistry C, 2015, 3, 1268-1276.	5.5	35
36	Intermediate phases formation during the synthesis of Bi4Ti3O12 by solid state reaction. Ceramics International, 2010, 36, 1319-1325.	4.8	34

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37	Extensive domain wall contribution to strain in a (K,Na)NbO3-based lead-free piezoceramics quantified from high energy X-ray diffraction. Journal of the European Ceramic Society, 2016, 36, 2489-2494.	5.7	34
38	A Solid-State Electrochemical Reaction as the Origin of Magnetism at Oxide Nanoparticle Interfaces. Journal of the Electrochemical Society, 2010, 157, E31.	2.9	33
39	Nanostructured ZnO/sepiolite monolithic sorbents for H₂S removal. Journal of Materials Chemistry A, 2015, 3, 1306-1316.	10.3	33
40	The impact of the synthesis conditions on SrAl 2 O 4 :Eu, Dy formation for a persistent afterglow. Materials and Design, 2016, 108, 354-363.	7.0	33
41	Effect of the temperature on the synthesis of (K,Na)NbO3-modified nanoparticles by a solid state reaction route. Journal of Nanoparticle Research, 2010, 12, 2495-2502.	1.9	31
42	On the origin of remanence enhancement in exchange-uncoupled CoFe2O4-based composites. Applied Physics Letters, 2014, 105, .	3.3	30
43	A low-energy milling approach to reduce particle size maintains the luminescence of strontium aluminates. RSC Advances, 2015, 5, 42559-42567.	3.6	30
44	Experimental evidence of charged domain walls in lead-free ferroelectric ceramics: light-driven nanodomain switching. Nanoscale, 2018, 10, 705-715.	5.6	29
45	Control of the Interphases Formation Degree in Co₃O₄/ZnO Catalysts. ChemCatChem, 2013, 5, 1431-1440.	3.7	28
46	Template-Assisted Wet-Combustion Synthesis of Fibrous Nickel-Based Catalyst for Carbon Dioxide Methanation and Methane Steam Reforming. ACS Applied Materials & Interfaces, 2017, 9, 43553-43562.	8.0	28
47	Light-Induced Capacitance Tunability in Ferroelectric Crystals. ACS Applied Materials & Interfaces, 2018, 10, 21804-21807.	8.0	28
48	Polymorphic phase boundary in piezoelectric oxides. Journal of Applied Physics, 2020, 127, .	2.5	26
49	Modification of optical properties in ZnO particles by surface deposition and anchoring of NiO nanoparticles. Journal of Alloys and Compounds, 2011, 509, 2891-2896.	5.5	25
50	Resolution of the ferroelectric domains structure in (K,Na)NbO3-based lead-free ceramics by confocal Raman microscopy. Journal of Applied Physics, 2013, 113, .	2.5	25
51	Extrinsic response enhancement at the polymorphic phase boundary in piezoelectric materials. Applied Physics Letters, 2016, 108, .	3.3	24
52	Effect of lanthanide doping on structural, microstructural and functional properties of K0.5Na0.5NbO3 lead-free piezoceramics. Ceramics International, 2016, 42, 17530-17538.	4.8	24
53	Electric field effect on the microstructure and properties of Ba_{0.9}Ca_{0.1}Ti_{0.9}Zr_{0.1}O₃ (BCTZ) lead-free ceramics. Journal of Materials Chemistry A, 2018, 6, 5419-5429.	10.3	24
54	Accelerated disintegration of compostable Ecovio polymer by using ZnO particles as filler. Polymer Degradation and Stability, 2021, 185, 109501.	5.8	24

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55	High chemical stability of stoneware tiles containing waste metals. Journal of the European Ceramic Society, 2010, 30, 2997-3004.	5.7	23
56	Mechanism of Ni_{1â€“x}Zn_xO Formation by Thermal Treatments on NiO Nanoparticles Dispersed over ZnO. Journal of Physical Chemistry C, 2011, 115, 13577-13583.	3.1	23
57	Photo-Controlled Ferroelectric-Based Nanoactuators. ACS Applied Materials & Interfaces, 2019, 11, 13921-13926.	8.0	23
58	Precise Tuning of the Nanostructured Surface leading to the Luminescence Enhancement in SrAl2O4 Based Core/Shell Structure. Scientific Reports, 2017, 7, 462.	3.3	22
59	Exploring new methodologies for the identification of the morphotropic phase boundary region in the (BiNa)TiO3-BaTiO3 lead free piezoceramics: Confocal Raman Microscopy. Journal of Alloys and Compounds, 2018, 739, 799-805.	5.5	22
60	Control of the Crystalline Structure and Piezoelectric Properties of (K,Na,Li)(Nb,Ta,Sb)O$_{3}$ Ceramics through Transition Metal Oxide Doping. Applied Physics Express, 2011, 4, 101501.	2.4	21
61	Self-Forming 3D Coreâ€“Shell Ceramic Nanostructures for Halogen-Free Flame Retardant Materials. ACS Applied Materials & Interfaces, 2016, 8, 9462-9471.	8.0	21
62	The Benefits of the ZnO/Clay Composite Formation as a Promising Antifungal Coating for Paint Applications. Applied Sciences (Switzerland), 2020, 10, 1322.	2.5	21
63	New insights into the properties of KxNa(1â^'x)NbO3 ceramics obtained by hydrothermal synthesis. Ceramics International, 2014, 40, 14701-14712.	4.8	20
64	Effect of Processing on the Sintering of High Dielectric constant CaCu3Ti4O12 Ceramics. International Journal of Applied Ceramic Technology, 2011, 8, 1201-1207.	2.1	19
65	Influences of secondary phases on ferroelectric properties of Bi(Na,K)TiO3 ceramics. Ceramics International, 2015, 41, 5380-5386.	4.8	18
66	Towards Blue Long-Lasting Luminescence of Eu/Nd-Doped Calcium-Aluminate Nanostructured Platelets via the Molten Salt Route. Nanomaterials, 2019, 9, 1473.	4.1	18
67	Evolution of structural and electrical properties of (K,Na,Li)(Nb,Ta,Sb)O3 lead-free piezoceramics through CoO doping. Solid State Communications, 2011, 151, 1463-1466.	1.9	17
68	Electroconductive composite of zirconia and hybrid graphene/alumina nanofibers. Journal of the European Ceramic Society, 2017, 37, 3713-3719.	5.7	17
69	The fight against multidrug-resistant organisms: The role of ZnO crystalline defects. Materials Science and Engineering C, 2019, 99, 575-581.	7.3	17
70	Influence of the BaTiO3 addition to K0.5Na0.5NbO3 lead-free ceramics on the vacancy-like defect structure and dielectric properties. Journal of the European Ceramic Society, 2021, 41, 1288-1298.	5.7	17
71	Influence of B-site compositional homogeneity on properties of (K0.44Na0.52Li0.04)(Nb0.86Ta0.10Sb0.04)O3-based piezoelectric ceramics. Journal of the European Ceramic Society, 2014, 34, 2249-2257.	5.7	16
72	Characterization of Carbon Nanoparticles in Thin-Film Nanocomposites by Confocal Raman Microscopy. Journal of Physical Chemistry C, 2014, 118, 10488-10494.	3.1	16

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73	Exploring New Mechanisms for Effective Antimicrobial Materials: Electric Contact-Killing Based on Multiple Schottky Barriers. ACS Applied Materials & Interfaces, 2017, 9, 26219-26225.	8.0	16
74	Ag-AgO nanostructures on glass substrates by solid-state dewetting: From extended to localized surface plasmons. Journal of Applied Physics, 2018, 124, .	2.5	16
75	Improved non-linear behaviour of ZnO-based varistor thick films prepared by tape casting and screen printing. Journal of the European Ceramic Society, 2007, 27, 3887-3891.	5.7	15
76	Mechanical Properties and Dimensional Effects of ZnO- and SnO2-Based Varistors. Journal of the American Ceramic Society, 2008, 91, 3105-3108.	3.8	15
77	In situ formation of Mn-doped ZnO aligned structures by rapid heating method. Materials Letters, 2009, 63, 212-214.	2.6	15
78	Poling and depoling influence on the micro-stress states and phase coexistence in KNN-based piezoelectric ceramics. Journal of the European Ceramic Society, 2019, 39, 1011-1019.	5.7	15
79	Photocontrolled Strain in Polycrystalline Ferroelectrics via Domain Engineering Strategy. ACS Applied Materials & Interfaces, 2021, 13, 20858-20864.	8.0	15
80	Tuning of Active Sites in Nïï£¿Nbï£¿O Catalysts for the Direct Conversion of Ethane to Acetonitrile or Ethylene. ChemCatChem, 2011, 3, 1637-1645.	3.7	14
81	Functionalization of gamma-alumina nanofibers by alpha-alumina via solution combustion synthesis. Ceramics International, 2014, 40, 12603-12607.	4.8	14
82	Evaluation of the performance of a lead-free piezoelectric material for energy harvesting. Smart Materials and Structures, 2015, 24, 115011.	3.5	14
83	Performance and Stability of Wet-Milled CoAl2O4, Ni/CoAl2O4, and Pt,Ni/CoAl2O4 for Soot Combustion. Catalysts, 2020, 10, 406.	3.5	14
84	One more step against nanotoxicity: Hierarchical particles designed to antifungal properties. Materials and Design, 2017, 134, 188-195.	7.0	13
85	Pt-free CoAl2O4 catalyst for soot combustion with NOx/O2. Applied Catalysis A: General, 2020, 591, 117404.	4.3	13
86	Enhancing NIR emission in ZnAl₂O₄:Nd,Ce nanofibers by co-doping with Ce and Nd: a promising biomarker material with low cytotoxicity. Journal of Materials Chemistry C, 2021, 9, 657-670.	5.5	13
87	Insights into the dielectric and luminescent properties of Na0.5Pr0.003Bi0.497â^'xLaxTiO3 synthesized by the Pechini method. Dalton Transactions, 2013, 42, 6879.	3.3	12
88	Influence of MoO3 on electrical and microstructural properties of (K0.44Na0.52Li0.04)(Nb0.86Ta0.10Sb0.04)O3. Journal of Materials Science: Materials in Electronics, 2013, 24, 3587-3593.	2.2	10
89	Ferroelectric Properties of Bi_{0.5}(Na_{0.8}K_{0.2})_{0.5}TiO₃ Ceramics. Advanced Materials Research, 2014, 975, 3-8.	0.3	10
90	Unveiling the role of the hexagonal polymorph on SrAl₂O₄-based phosphors. RSC Advances, 2018, 8, 28918-28927.	3.6	10

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91	Pt mechanical dispersion on non-porous alumina for soot oxidation. Catalysis Communications, 2020, 140, 105999.	3.3	10
92	Nanostructural evolution in mesoporous networks using in situ High-Speed Temperature Scanner. Ceramics International, 2018, 44, 12265-12272.	4.8	9
93	Investigating Raman spectra and density functional theory calculations on SrAl₂O₄ polymorphs. Journal of Raman Spectroscopy, 2019, 50, 91-101.	2.5	9
94	Boosting phosphorescence efficiency by crystal anisotropy in SrAl2O4:Eu,Dy textured ceramic layers. Journal of the European Ceramic Society, 2020, 40, 1677-1683.	5.7	9
95	Effect of fugitive phase addition on porosity evolution and properties of stoneware tiles. Advances in Applied Ceramics, 2010, 109, 219-224.	1.1	8
96	The impact of microstructure in (K,Na)NbO3-based lead-Free piezoelectric fibers: From processing to device production for structural health monitoring. Journal of the European Ceramic Society, 2016, 36, 2745-2754.	5.7	8
97	Stabilization of the morphotropic phase boundary in (1â€‰â^'â€‰x)Bi0.5Na0.5TiO3â€“xBaTiO3 ceramics through two alternative synthesis pathways. Journal of Materials Science: Materials in Electronics, 2019, 30, 18405-18412.	2.2	8
98	Confocal Raman Microscopy, Synchrotron X-ray Diffraction, and Photoacoustic Study of Ba_{0.85}Ca_{0.15}Ti_{0.90}Zr_{0.10}O₃: Understanding Structural and Microstructural Response to the Electric Field. ACS Applied Electronic Materials, 2021, 3, 2966-2976.	4.3	7
99	Influence of surface modifiers on hydrothermal synthesis of K x Na(1â^'x)NbO3. Journal of Materials Science: Materials in Electronics, 2015, 26, 9402-9408.	2.2	6
100	Thermal and microstructural analysis of doped alumina nanofibers. Thermochimica Acta, 2015, 602, 43-48.	2.7	6
101	Large coincidence lattice on Au/Fe 3 O 4 incommensurate structure for spintronic applications. Applied Surface Science, 2015, 355, 698-701.	6.1	5
102	Mechanical properties enhancement in potassium-sodium niobate lead-free piezoceramics: the impact of chemical modifications. Journal of Materials Science: Materials in Electronics, 2017, 28, 5128-5134.	2.2	5
103	Opening a New Gate to Glass Preservative with Long-Lasting Antimicrobial Activity as Replacement of Parabens. ACS Sustainable Chemistry and Engineering, 2017, 5, 294-302.	6.7	5
104	Enhancement of piezoelectric properties stability of submicron-structured piezoceramics obtained by spark plasma sintering. Journal of the European Ceramic Society, 2018, 38, 4659-4663.	5.7	5
105	Correlation between the structure and the piezoelectric properties of lead-free (K,Na,Li)(Nb,Ta,Sb)O3 ceramics studied by XRD and Raman spectroscopy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1826-1834.	3.0	4
106	Dielectric and ferroelectric properties evolution of (1â^'x)(Bi0.5Na0.5TiO3)â€“xK0.5Na0.5NbO3 piezoceramics. Bulletin of Materials Science, 2020, 43, 1.	1.7	4
107	Piezoelectric and structural properties of bismuth sodium potassium titanate lead-free ceramics for energy harvesting. Journal of Materials Science: Materials in Electronics, 2021, 32, 19117-19125.	2.2	4
108	Confocal Raman Microscopy Can Make a Large Difference: Resolving and Manipulating Ferroelectric Domains forÂPiezoelectric Engineering. Springer Series in Surface Sciences, 2018, , 531-556.	0.3	3

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109	Aluminate-Based Nanostructured Luminescent Materials: Design of Processing and Functional Properties. Materials, 2021, 14, 4591.	2.9	3
110	Respuesta Ferro-PiezoelÃ©ctrica de (K,Na,Li)(Nb,Ta,Sb)O₃ Poroso. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 48-52.	1.9	3
111	Anomalous local lattice disorder and distortion in A2Mo2O7 pyrochlores. Journal of Alloys and Compounds, 2017, 723, 327-332.	5.5	2
112	Viability Study of a Safe Method for Health to Prepare Cement Pastes with Simultaneous Nanometric Functional Additions. Advances in Materials Science and Engineering, 2018, 2018, 1-13.	1.8	2
113	Estudio de las condiciones de procesamiento de Bi_{0.5}(Na_{0.8}K_{0.2})_{0.5}TiO₃. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 27-31.	1.9	2
114	Tape Casting of Graphite Material: A New Electrochemical Sensor. Electroanalysis, 2006, 18, 1614-1619.	2.9	1
115	XANES experimental evidence of double exchange in ferromagnetic Mnâ€“Znâ€“O. Advances in Applied Ceramics, 2009, 108, 263-266.	1.1	0
116	Influence of MoO<inf>3</inf> on electrical and microstructural properties of (K<inf>0.44</inf>Na<inf>0.52</inf>Li<inf>0.04</inf>)(Nb<inf>0.86</inf>Ta<inf>0.10< , 2012, , .		
117	Local disorder and structure relation induced by magnetic exchange interactions in A2(Mo1â^'yMny)2O7 pyrochlores. Journal of Alloys and Compounds, 2021, 865, 158958.	5.5	0