Fernando Rubio-Marcos

List of Publications by Citations

116 papers	3,021 citations	31 h-index	49 g-index
123 ext. papers	3,474 ext. citations	5.6 avg, IF	5.36 L-index

#	Paper	IF	Citations
116	Sintering and properties of lead-free (K,Na,Li)(Nb,Ta,Sb)O3 ceramics. *Journal of the European Ceramic Society*, **2007**, 27, 4125-4129	6	165
115	Long lasting phosphors: SrAl2O4:Eu, Dy as the most studied material. *Renewable and Sustainable Energy Reviews*, **2018**, 81, 2759-2770	16.2	115
114	Effect of ZnO on the structure, microstructure and electrical properties of KNN-modified piezoceramics. *Journal of the European Ceramic Society*, **2009**, 29, 3045-3052	6	113
113	Lead-Free Piezoceramics: Revealing the Role of the Rhombohedral-Tetragonal Phase Coexistence in Enhancement of the Piezoelectric Properties. *ACS Applied Materials & Interfaces*, **2015**, 7, 23080-8	9.5	104
112	Novel hierarchical Co3O4/ZnO mixtures by dry nanodispersion and their catalytic application in the carbonylation of glycerol. *Journal of Catalysis*, **2010**, 275, 288-293	7.3	104
111	Ferroelectric domain wall motion induced by polarized light. *Nature Communications*, **2015**, 6, 6594	17.4	95
110	High spatial resolution structure of (K,Na)NbO3 lead-free ferroelectric domains. *Journal of Materials Chemistry*, **2012**, 22, 9714		89
109	Feasible integration in asphalt of piezoelectric cymbals for vibration energy harvesting. *Energy Conversion and Management*, **2016**, 112, 246-253	10.6	86
108	Correlation between the piezoelectric properties and the structure of lead-free KNN-modified ceramics, studied by Raman Spectroscopy. *Journal of Raman Spectroscopy*, **2011**, 42, 639-643	2.3	75
107	High Strain in (K,Na)NbO3-Based Lead-Free Piezoelectric Fibers. *Chemistry of Materials*, **2014**, 26, 3838-3848	9.46	72
106	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	4.4	69
105	Evolution of the intergranular phase during sintering of CaCu3Ti4O12 ceramics. *Journal of the European Ceramic Society*, **2010**, 30, 737-742	6	68
104	Effects of Poling Process on KNN-Modified Piezoceramic Properties. *Journal of the American Ceramic Society*, **2010**, 93, 318-321	3.8	64
103	Properties related phase evolution in porcelain ceramics. *Journal of the European Ceramic Society*, **2007**, 27, 4065-4069	6	61
102	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	6	60
101	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	6	59
100	Ferroelectric domain structure of lead-free potassium-sodium niobate ceramics. *Journal of the European Ceramic Society*, **2011**, 31, 1861-1864	6	58

99	Reversible optical control of macroscopic polarization in ferroelectrics. *Nature Photonics*, **2018**, 12, 29-32	33.9	57
98	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, 9896-907	5.1	46
97	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	5.7	40
96	Structure, microstructure and electrical properties of Cu2+ doped (K,Na,Li)(Nb,Ta,Sb)O3 piezoelectric ceramics. *Ceramics International*, **2013**, 39, 4139-4149	5.1	39
95	New concepts for process intensification in the conversion of glycerol carbonate to glycidol. *Applied Catalysis B: Environmental*, **2013**, 129, 575-579	21.8	39
94	Extrinsic contribution and non-linear response in lead-free KNN-modified piezoceramics. *Journal Physics D: Applied Physics*, **2009**, 42, 025402	3	39
93	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	6	37
92	Insights into the room temperature magnetism of ZnO□Co3O4 mixtures. *Journal of Applied Physics*, **2008**, 103, 083905	2.5	37
91	Energy Product Enhancement in Imperfectly Exchange-Coupled Nanocomposite Magnets. *Advanced Electronic Materials*, **2016**, 2, 1500365	6.4	37
90	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, 1835-42	3.2	36
89	Revealing the role of cationic displacement in potassium□sodium niobate lead-free piezoceramics by adding W6+ ions. *Journal of Materials Chemistry C*, **2015**, 3, 4168-4178	7.1	35
88	Sintering behaviour of nanostructured glass-ceramic glazes. *Ceramics International*, **2010**, 36, 1845-1850	5.1	35
87	Monitoring the catalytic synthesis of glycerol carbonate by real-time attenuated total reflection FTIR spectroscopy. *Applied Catalysis A: General*, **2011**, 409-410, 106-112	5.1	32
86	A Solid-State Electrochemical Reaction as the Origin of Magnetism at Oxide Nanoparticle Interfaces. *Journal of the Electrochemical Society*, **2010**, 157, E31	3.9	32
85	Graphene-encapsulated aluminium oxide nanofibers as a novel type of nanofillers for electroconductive ceramics. *Journal of the European Ceramic Society*, **2015**, 35, 4017-4021	6	31
84	Designing nanostructured strontium aluminate particles with high luminescence properties. *Journal of Materials Chemistry C*, **2015**, 3, 1268-1276	7.1	30
83	Nanostructured ZnO/sepiolite monolithic sorbents for H2S removal. *Journal of Materials Chemistry A*, **2015**, 3, 1306-1316	13	29
82	Exploring different sintering atmospheres to reduce nonlinear response of modified KNN piezoceramics. *Journal of the European Ceramic Society*, **2013**, 33, 825-831	6	29

81	A low-energy milling approach to reduce particle size maintains the luminescence of strontium aluminates. *RSC Advances*, **2015**, 5, 42559-42567	3.7	27
80	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	8.1	27
79	Some clues about the interphase reaction between ZnO and MnO2 oxides. *Journal of Solid State Chemistry*, **2009**, 182, 1211-1216	3.3	26
78	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	2.3	26
77	ZnO Nanoporous Spheres with Broad-Spectrum Antimicrobial Activity by Physicochemical Interactions. *ACS Applied Nano Materials*, **2018**, 1, 3214-3225	5.6	25
76	On the origin of remanence enhancement in exchange-uncoupled CoFe2O4-based composites. *Applied Physics Letters*, **2014**, 105, 202405	3.4	25
75	Modification of optical properties in ZnO particles by surface deposition and anchoring of NiO nanoparticles. *Journal of Alloys and Compounds*, **2011**, 509, 2891-2896	5.7	23
74	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	6	23
73	Electric field effect on the microstructure and properties of Ba0.9Ca0.1Ti0.9Zr0.1O3 (BCTZ) lead-free ceramics. *Journal of Materials Chemistry A*, **2018**, 6, 5419-5429	13	21
72	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	9.5	21
71	Mechanism of Ni1ZnxO Formation by Thermal Treatments on NiO Nanoparticles Dispersed over ZnO. *Journal of Physical Chemistry C*, **2011**, 115, 13577-13583	3.8	21
70	Intermediate phases formation during the synthesis of Bi4Ti3O12 by solid state reaction. *Ceramics International*, **2010**, 36, 1319-1325	5.1	21
69	Extrinsic response enhancement at the polymorphic phase boundary in piezoelectric materials. *Applied Physics Letters*, **2016**, 108, 142901	3.4	21
68	Control of the Interphases Formation Degree in Co3O4/ZnO Catalysts. *ChemCatChem*, **2013**, 5, 1431-1440	5.2	20
67	Resolution of the ferroelectric domains structure in (K,Na)NbO3-based lead-free ceramics by confocal Raman microscopy. *Journal of Applied Physics*, **2013**, 113, 187215	2.5	20
66	Experimental evidence of charged domain walls in lead-free ferroelectric ceramics: light-driven nanodomain switching. *Nanoscale*, **2018**, 10, 705-715	7.7	20
65	Effect of lanthanide doping on structural, microstructural and functional properties of K0.5Na0.5NbO3 lead-free piezoceramics. *Ceramics International*, **2016**, 42, 17530-17538	5.1	18
64	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	18

63	High chemical stability of stoneware tiles containing waste metals. *Journal of the European Ceramic Society*, **2010**, 30, 2997-3004	6	18
62	Precise Tuning of the Nanostructured Surface leading to the Luminescence Enhancement in SrAlO Based Core/Shell Structure. *Scientific Reports*, **2017**, 7, 462	4.9	17
61	Light-Induced Capacitance Tunability in Ferroelectric Crystals. *ACS Applied Materials & Interfaces*, **2018**, 10, 21804-21807	9.5	17
60	Effect of Processing on the Sintering of High Dielectric constant CaCu3Ti4O12 Ceramics. *International Journal of Applied Ceramic Technology*, **2011**, 8, 1201-1207	2	17
59	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	1.6	17
58	New insights into the properties of KxNa(1⊠)NbO3 ceramics obtained by hydrothermal synthesis. *Ceramics International*, **2014**, 40, 14701-14712	5.1	16
57	Self-Forming 3D Core-Shell Ceramic Nanostructures for Halogen-Free Flame Retardant Materials. *ACS Applied Materials & Interfaces*, **2016**, 8, 9462-71	9.5	15
56	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	6	15
55	In situ formation of Mn-doped ZnO aligned structures by rapid heating method. *Materials Letters*, **2009**, 63, 212-214	3.3	15
54	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	6	15
53	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	5.7	14
52	Influences of secondary phases on ferroelectric properties of Bi(Na,K)TiO3 ceramics. *Ceramics International*, **2015**, 41, 5380-5386	5.1	14
51	Electroconductive composite of zirconia and hybrid graphene/alumina nanofibers. *Journal of the European Ceramic Society*, **2017**, 37, 3713-3719	6	13
50	Characterization of Carbon Nanoparticles in Thin-Film Nanocomposites by Confocal Raman Microscopy. *Journal of Physical Chemistry C*, **2014**, 118, 10488-10494	3.8	13
49	The fight against multidrug-resistant organisms: The role of ZnO crystalline defects. *Materials Science and Engineering C*, **2019**, 99, 575-581	8.3	12
48	Exploring New Mechanisms for Effective Antimicrobial Materials: Electric Contact-Killing Based on Multiple Schottky Barriers. *ACS Applied Materials & Interfaces*, **2017**, 9, 26219-26225	9.5	12
47	Mechanical Properties and Dimensional Effects of ZnO- and SnO2-Based Varistors. *Journal of the American Ceramic Society*, **2008**, 91, 3105-3108	3.8	12
46	Functionalization of gamma-alumina nanofibers by alpha-alumina via solution combustion synthesis. *Ceramics International*, **2014**, 40, 12603-12607	5.1	11

45	Insights into the dielectric and luminescent properties of Na(0.5)Pr(0.003)Bi(0.497-x)La(x)TiO3 synthesized by the Pechini method. *Dalton Transactions*, **2013**, 42, 6879-85	4.3	11
44	Tuning of Active Sites in Ni?Nb?O Catalysts for the Direct Conversion of Ethane to Acetonitrile or Ethylene. *ChemCatChem*, **2011**, 3, 1637-1645	5.2	11
43	Photo-Controlled Ferroelectric-Based Nanoactuators. *ACS Applied Materials & Interfaces*, **2019**, 11, 13921-13926	9.5	10
42	Polymorphic phase boundary in piezoelectric oxides. *Journal of Applied Physics*, **2020**, 127, 131102	2.5	10
41	Towards Blue Long-Lasting Luminescence of Eu/Nd-Doped Calcium-Aluminate Nanostructured Platelets via the Molten Salt Route. *Nanomaterials*, **2019**, 9,	5.4	10
40	Evaluation of the performance of a lead-free piezoelectric material for energy harvesting. *Smart Materials and Structures*, **2015**, 24, 115011	3.4	10
39	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	2.1	10
38	Nanostructural evolution in mesoporous networks using in situ High-Speed Temperature Scanner. *Ceramics International*, **2018**, 44, 12265-12272	5.1	9
37	One more step against nanotoxicity: Hierarchical particles designed to antifungal properties. *Materials and Design*, **2017**, 134, 188-195	8.1	9
36	Accelerated disintegration of compostable Ecovio polymer by using ZnO particles as filler. *Polymer Degradation and Stability*, **2021**, 185, 109501	4.7	9
35	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	6	9
34	Ag-AgO nanostructures on glass substrates by solid-state dewetting: From extended to localized surface plasmons. *Journal of Applied Physics*, **2018**, 124, 133103	2.5	9
33	The Benefits of the ZnO/Clay Composite Formation as a Promising Antifungal Coating for Paint Applications. *Applied Sciences (Switzerland)*, **2020**, 10, 1322	2.6	8
32	Ferroelectric Properties of Bi0.5(Na0.8K0.2)0.5TiO3 Ceramics. *Advanced Materials Research*, **2014**, 975, 3-8	0.5	8
31	Pt mechanical dispersion on non-porous alumina for soot oxidation. *Catalysis Communications*, **2020** , 140, 105999	3.2	7
30	Unveiling the role of the hexagonal polymorph on SrAlO-based phosphors.. *RSC Advances*, **2018**, 8, 28918-28927	3.7	7
29	Pt-free CoAl2O4 catalyst for soot combustion with NOx/O2. *Applied Catalysis A: General*, **2020**, 591, 117404	5.1	7
28	Influence of surface modifiers on hydrothermal synthesis of K x Na(1−x)NbO3. *Journal of Materials Science: Materials in Electronics*, **2015**, 26, 9402-9408	2.1	6

27	Investigating Raman spectra and density functional theory calculations on SrAl2O4 polymorphs. *Journal of Raman Spectroscopy*, **2019**, 50, 91-101	2.3	6
26	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	2.1	5
25	Large coincidence lattice on Au/Fe 3 O 4 incommensurate structure for spintronic applications. *Applied Surface Science*, **2015**, 355, 698-701	6.7	5
24	Performance and Stability of Wet-Milled CoAl2O4, Ni/CoAl2O4, and Pt,Ni/CoAl2O4 for Soot Combustion. *Catalysts*, **2020**, 10, 406	4	5
23	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	8.3	5
22	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	6	5
21	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	7.1	5
20	Thermal and microstructural analysis of doped alumina nanofibers. *Thermochimica Acta*, **2015**, 602, 43-48	2.9	4
19	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, 1826-34	3.2	4
18	Effect of fugitive phase addition on porosity evolution and properties of stoneware tiles. *Advances in Applied Ceramics*, **2010**, 109, 219-224	2.3	4
17	Boosting phosphorescence efficiency by crystal anisotropy in SrAl2O4:Eu,Dy textured ceramic layers. *Journal of the European Ceramic Society*, **2020**, 40, 1677-1683	6	4
16	Stabilization of the morphotropic phase boundary in (1 □k)Bi0.5Na0.5TiO3□BaTiO3 ceramics through two alternative synthesis pathways. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 18405-18412	2.1	3
15	Respuesta Ferro-Piezoel□trica 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
14	Photocontrolled Strain in Polycrystalline Ferroelectrics via Domain Engineering Strategy. *ACS Applied Materials & Interfaces*, **2021**, 13, 20858-20864	9.5	3
13	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	6	3
12	Confocal Raman Microscopy, Synchrotron X-ray Diffraction, and Photoacoustic Study of Ba0.85Ca0.15Ti0.90Zr0.10O3: Understanding Structural and Microstructural Response to the Electric Field. *ACS Applied Electronic Materials*, **2021**, 3, 2966-2976	4	3
11	Confocal Raman Microscopy Can Make a Large Difference: Resolving and Manipulating Ferroelectric Domains for Piezoelectric Engineering. *Springer Series in Surface Sciences*, **2018**, 531-556	0.4	2
10	Estudio de las condiciones de procesamiento de Bi0.5(Na0.8K0.2)0.5TiO3. *Boletin De La Sociedad Espanola De Ceramica Y Vidrio*, **2014**, 53, 27-31	1.9	2

9	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	1.5	2
8	Anomalous local lattice disorder and distortion in A2Mo2O7 pyrochlores. *Journal of Alloys and Compounds*, **2017**, 723, 327-332	5.7	1
7	Tape Casting of Graphite Material: A New Electrochemical Sensor. *Electroanalysis*, **2006**, 18, 1614-1619	3	1
6	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	2.1	1
5	Enhancement of piezoelectric properties stability of submicron-structured piezoceramics obtained by spark plasma sintering. *Journal of the European Ceramic Society*, **2018**, 38, 4659-4663	6	1
4	Aluminate-Based Nanostructured Luminescent Materials: Design of Processing and Functional Properties. *Materials*, **2021**, 14,	3.5	1
3	Dielectric and ferroelectric properties evolution of (1)(Bi0.5Na0.5TiO3)K0.5Na0.5NbO3 piezoceramics. *Bulletin of Materials Science*, **2020**, 43, 1	1.7	0
2	XANES experimental evidence of double exchange in ferromagnetic MnZnO. *Advances in Applied Ceramics*, **2009**, 108, 263-266	2.3	
1	Local disorder and structure relation induced by magnetic exchange interactions in A2(Mo1Mny)2O7 pyrochlores. *Journal of Alloys and Compounds*, **2021**, 865, 158958	5.7	