

# Ana Isabel Becerro

## List of Publications by Year in descending order

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96  
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201385

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97  
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97  
docs citations

97  
times ranked

2757  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rare earth based nanostructured materials: synthesis, functionalization, properties and bioimaging and biosensing applications. Nanophotonics, 2017, 6, 881-921.	2.9	137
2	Thermal Expansion of Rare-Earth Pyrosilicates. Journal of the American Ceramic Society, 2013, 96, 2298-2305.	1.9	134
3	Monoclinic-Tetragonal Heterostructured BiVO <sub>4</sub> by Yttrium Doping with Improved Photocatalytic Activity. Journal of Physical Chemistry C, 2013, 117, 24479-24484.	1.5	134
4	Synthesis and Properties of Multifunctional Tetragonal Eu:GdPO <sub>4</sub> Nanocubes for Optical and Magnetic Resonance Imaging Applications. Inorganic Chemistry, 2013, 52, 647-654.	1.9	98
5	Phase transitions in Ca <sub>1-x</sub> Sr <sub>x</sub> TiO <sub>3</sub> perovskites: effects of composition and temperature. Journal of Materials Chemistry, 2000, 10, 1609-1615.	6.7	90
6	Oxygen vacancy ordering in CaTiO <sub>3</sub> -CaFeO <sub>2.5</sub> perovskites: From isolated defects to infinite sheets. Phase Transitions, 1999, 69, 133-146.	0.6	71
7	Short-range ordering of oxygen vacancies in CaFe <sub>x</sub> Ti <sub>1-x</sub> O <sub>3-x/2</sub> perovskites (0 < x < 0.4). Journal of Physics Condensed Matter, 2000, 12, 2969-2984.	0.7	66
8	Pore structure analysis of the mesoporous titanasilicate molecular sieve MCM-41 by <sup>1</sup> H NMR and N <sub>2</sub> sorption. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 849.	1.7	60
9	Perfectly Transparent Sr <sub>3</sub> Al <sub>2</sub> O <sub>6</sub> Polycrystalline Ceramic Elaborated from Glass Crystallization. Chemistry of Materials, 2013, 25, 4017-4024.	3.2	60
10	Micro-Raman study of perovskites in the CaTiO <sub>3</sub> -SrTiO <sub>3</sub> system. Dalton Transactions RSC, 2002, , 3751-3755.	2.3	52
11	Revisiting Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> and Y <sub>2</sub> Si <sub>5</sub> O <sub>5</sub> polymorphic structures by 89Y MAS-NMR spectroscopy. Journal of Solid State Chemistry, 2004, 177, 2783-2789.	1.4	50
12	A Novel 3D Architecture of GdPO <sub>4</sub> Nanophosphors: Multicolored and White Light Emission. Crystal Growth and Design, 2013, 13, 526-535.	1.4	48
13	Bifunctional, Monodisperse BiPO <sub>4</sub> -Based Nanostars: Photocatalytic Activity and Luminescent Applications. Crystal Growth and Design, 2014, 14, 3319-3326.	1.4	45
14	Synthesis of MCM-22 zeolites of different Si/Al ratio and their structural, morphological and textural characterisation. Microporous and Mesoporous Materials, 2009, 118, 1-10.	2.2	42
15	Solid solubility of Yb <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> in <sup>2-</sup> , <sup>3-</sup> and <sup>1-</sup> Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> . Journal of Solid State Chemistry, 2011, 184, 1882-1889.	1.4	38
16	New Single-Phase, White-Light-Emitting Phosphors Based on <sup>2-</sup> Gd <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> for Solid-State Lighting. Journal of Physical Chemistry C, 2014, 118, 18035-18043.	1.5	38
17	HoF <sub>3</sub> and DyF <sub>3</sub> Nanoparticles as Contrast Agents for High-Field Magnetic Resonance Imaging. Particle and Particle Systems Characterization, 2017, 34, 1700116.	1.2	38
18	Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of Yttrium Disilicate. Journal of the American Ceramic Society, 2003, 86, 1592-1594.	1.9	36

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19	Ligand-Free Synthesis of Tunable Size Ln:BaGdF <sub>5</sub> (Ln = Eu <sup>3+</sup> and Nd <sup>3+</sup> ) Nanoparticles: Luminescence, Magnetic Properties, and Biocompatibility. <i>Langmuir</i> , 2016, 32, 411-420.	1.6	36
20	Morphology control of uniform CaMoO <sub>4</sub> microarchitectures and development of white light emitting phosphors by Ln doping (Ln = Dy <sup>3+</sup> , Eu <sup>3+</sup> ). <i>CrystEngComm</i> , 2017, 19, 1590-1600.	1.3	36
21	Revealing the substitution mechanism in Eu <sup>3+</sup> :CaMoO <sub>4</sub> and Eu <sup>3+</sup> :Na <sup>+</sup> :CaMoO <sub>4</sub> phosphors. <i>Journal of Materials Chemistry C</i> , 2018, 6, 12830-12840.	2.7	34
22	Revision of the crystallographic data of polymorphic Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> and Y <sub>2</sub> SiO <sub>5</sub> compounds. <i>Phase Transitions</i> , 2004, 77, 1093-1102.	0.6	33
23	Ionic and electronic conductivity in CaTi <sub>1-x</sub> FexO <sub>3</sub> (x=0.1-0.3). <i>Ionics</i> , 1999, 5, 385-392.	1.2	32
24	The transition from short-range to long-range ordering of oxygen vacancies in CaFexTi <sub>1-x</sub> O <sub>3-x/2</sub> perovskites. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 3933-3941.	1.3	30
25	High-resolution <sup>1</sup> H MAS NMR spectra of 2:1 phyllosilicates. <i>Chemical Communications</i> , 2000, , 37-38.	2.2	30
26	The hydrothermal conversion of kaolinite to kalsilite: Influence of time, temperature, and pH. <i>American Mineralogist</i> , 2009, 94, 1672-1678.	0.9	29
27	Chemical Behavior of Lithium Ions in Reexpanded Li <sup>+</sup> Montmorillonites. <i>Journal of Physical Chemistry B</i> , 1998, 102, 2207-2213.	1.2	27
28	Inherent Acidity of Aqua Metal Ions in Solids: An Assay in Layered Aluminosilicates. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3996-4001.	1.2	27
29	Structure-directing effect of phyllosilicates on the synthesis of γ-Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> . <i>Phase transitions in Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub></i> . <i>Journal of Materials Chemistry</i> , 2003, 13, 1835.	6.7	27
30	Polymorphism in the Sc <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> -Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> system. <i>Journal of Solid State Chemistry</i> , 2007, 180, 1436-1445.	1.4	26
31	Europium-doped NaGd(WO <sub>4</sub> ) <sub>2</sub> nanophosphors: synthesis, luminescence and their coating with fluorescein for pH sensing. <i>Dalton Transactions</i> , 2017, 46, 11575-11583.	1.6	26
32	Application of <sup>29</sup> Si and <sup>27</sup> Al MAS NMR Spectroscopy to the Study of the Reaction Mechanism of Kaolinite to Illite/Muscovite. <i>Clays and Clay Minerals</i> , 2009, 57, 302-310.	0.6	24
33	Transparent polycrystalline SrREGa <sub>3</sub> O <sub>7</sub> melilite ceramics: potential phosphors for tuneable solid state lighting. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3238-3247.	2.7	24
34	Local Disorder and Tunable Luminescence in Sr <sub>1-x</sub> /2Al <sub>2-x</sub> /Si <sub>x</sub> O <sub>4</sub> (0.2 ≤ x ≤ 1) Tj ETQq00 0 rgB14/Overlock	0.0	24
35	From structure to luminescence investigation of oxyfluoride transparent glasses and glass-ceramics doped with Eu <sup>3+</sup> /Dy <sup>3+</sup> ions. <i>Journal of Alloys and Compounds</i> , 2019, 806, 1410-1418.	2.8	24
36	Crystal Structure and Luminescent Properties of Eu <sup>3+</sup> -Doped A-La <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> Tetragonal Phase Stabilized by Spray Pyrolysis Synthesis. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20876-20886.	1.5	23

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37	XRD and $^{29}\text{Si}$ MAS-NMR spectroscopy across the $\text{Y}_2\text{-Lu}_2\text{Si}_2\text{O}_7\text{-Y}_2\text{-Y}_2\text{Si}_2\text{O}_7$ solid solution. Journal of Solid State Chemistry, 2005, 178, 1-7.	1.4	22
38	Structural study of the $\text{Lu}_2\text{Si}_2\text{O}_7\text{-Sc}_2\text{Si}_2\text{O}_7$ system. Journal of Physics and Chemistry of Solids, 2007, 68, 464-469.	1.9	22
39	Revealing Structural Detail in the High Temperature $\text{La}_{2-x}\text{Si}_{2-x}\text{O}_{7-x}\text{-Y}_{2-x}\text{Si}_{2-x}\text{O}_{7-x}$ Phase Diagram by Synchrotron Powder Diffraction and Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 21523-21535.	1.5	21
40	Photonic Tuning of the Emission Color of Nanophosphor Films Processed at High Temperature. Advanced Optical Materials, 2017, 5, 1700099.	3.6	21
41	The Structures of Complexes of a Vermiculite Intercalated by Cationic Surfactants, a Mixture of Cationic Surfactants, and a Mixture of Cationic and Nonionic Surfactants. Journal of Colloid and Interface Science, 2002, 256, 314-324.	5.0	20
42	Stability of phyllosilicates in $\text{Ca}(\text{OH})_2$ solution: Influence of layer nature, octahedral occupation, presence of tetrahedral Al and degree of crystallinity. Applied Geochemistry, 2009, 24, 1251-1260.	1.4	20
43	Persistent luminescent nanoparticles: Challenges and opportunities for a shimmering future. Journal of Applied Physics, 2021, 130, .	1.1	20
44	Persistent luminescence of transparent $\text{ZnGa}_2\text{O}_4\text{:Cr}^{3+}$ thin films from colloidal nanoparticles of tunable size. Journal of Materials Chemistry C, 2021, 9, 4474-4485.	2.7	19
45	Displacive phase transitions and spontaneous strains in oxygen deficient $\text{CaFe}_{1-x}\text{Ti}_x\text{O}_{3-x/2}$ perovskites ( $0 \leq x \leq 0.40$ ). Journal of Physics Condensed Matter, 2000, 12, 3661-3670.	0.7	18
46	Synthesis, functionalization and properties of uniform europium-doped sodium lanthanum tungstate and molybdate ( $\text{NaLa}(\text{XO}_4)_2$ , $\text{X} = \text{Mo, W}$ ) probes for luminescent and X-ray computed tomography bioimaging. Journal of Colloid and Interface Science, 2019, 554, 520-530.	5.0	18
47	Enhancing Luminescence and X-ray Absorption Capacity of $\text{Eu}^{3+}\text{:LaF}_3$ Nanoparticles by $\text{Bi}^{3+}$ Codoping. ACS Omega, 2019, 4, 765-774.	1.6	18
48	Displacive Phase Transitions in and Strain Analysis of Fe-Doped $\text{CaTiO}_3$ Perovskites at High Temperatures by Neutron Diffraction. Journal of Solid State Chemistry, 2002, 167, 459-471.	1.4	17
49	Mineralogical stability of phyllosilicates in hyperalkaline fluids: Influence of layer nature, octahedral occupation and presence of tetrahedral Al. American Mineralogist, 2009, 94, 1187-1197.	0.9	17
50	Hydrothermal Synthesis of Kalsilite: A Simple and Economical Method. Journal of the American Ceramic Society, 2009, 92, 2204-2206.	1.9	17
51	Phase Transitions in Lu-Doped $\text{Y}_2\text{Si}_2\text{O}_7$ at High Temperatures. Chemistry of Materials, 2005, 17, 112-117.	3.2	16
52	Polymorphism in the $\text{Lu}_2\text{-Y}_x\text{Si}_2\text{O}_7$ system at high temperatures. Journal of the European Ceramic Society, 2006, 26, 2293-2299.	2.8	16
53	Room temperature synthesis of water-dispersible $\text{Ln}^{3+}\text{:CeF}_3$ ( $\text{Ln} = \text{Nd, Tb}$ ) nanoparticles with different morphology as bimodal probes for fluorescence and CT imaging. Journal of Colloid and Interface Science, 2018, 520, 134-144.	5.0	16
54	Biocompatibility assessment of up-and down-converting nanoparticles: implications of interferences with <i>in vitro</i> assays. Methods and Applications in Fluorescence, 2019, 7, 014001.	1.1	16

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55	Structural elucidation of $\text{Y}_2(\text{Y,Sc})_2\text{Si}_2\text{O}_7$ : combined use of $^89\text{Y}$ MAS NMR and powder diffraction. Journal of Applied Crystallography, 2011, 44, 846-852.	1.9	15
56	Crystal Structures and Photoluminescence across the $\text{La}_2\text{Si}_2\text{O}_7$ – $\text{Ho}_2\text{Si}_2\text{O}_7$ System. Inorganic Chemistry, 2013, 52, 13469-13479.	1.9	15
57	Holmium phosphate nanoparticles as negative contrast agents for high-field magnetic resonance imaging: Synthesis, magnetic relaxivity study and in vivo evaluation. Journal of Colloid and Interface Science, 2021, 587, 131-140.	5.0	15
58	Structural and kinetic study of phase transitions in $\text{LaYSi}_2\text{O}_7$ . Journal of the European Ceramic Society, 2012, 32, 2477-2486.	2.8	14
59	Ionic and electronic conductivity in $\text{CaTi}_{0.9}\text{Fe}_{0.1}\text{O}_{3-\delta}$ . Phase Transitions, 1999, 69, 157-168.	0.6	12
60	Hard mode infrared spectroscopy of $\text{CaTiO}_3$ – $\text{CaFeO}_{2.5}$ perovskites. Phase Transitions, 2000, 71, 161-172.	0.6	12
61	Quick synthesis, functionalization and properties of uniform, luminescent $\text{LuPO}_4$ -based nanoparticles. RSC Advances, 2015, 5, 34517-34524.	1.7	12
62	Uniform, luminescent $\text{Eu:LuF}_3$ nanoparticles. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	11
63	Stability of the low temperature polymorphs ( $\gamma$ and $\delta$ ) of Lu-doped $\text{Y}_2\text{Si}_2\text{O}_7$ . Journal of Physics and Chemistry of Solids, 2007, 68, 1348-1353.	1.9	10
64	Effect of pressure on kaolinite illitization. Applied Clay Science, 2010, 50, 342-347.	2.6	10
65	Morphological and structural behavior of $\text{TiO}_2$ nanoparticles in the presence of $\text{WO}_3$ : crystallization of the oxide composite system. Physical Chemistry Chemical Physics, 2014, 16, 19540-19549.	1.3	10
66	Highly Versatile Upconverting Oxyfluoride-Based Nanophosphor Films. ACS Applied Materials & Interfaces, 2021, 13, 30051-30060.	4.0	10
67	Cubic–tetragonal phase transition in $\text{Ca}_{0.04}\text{Sr}_{0.96}\text{TiO}_3$ : a combined specific heat and neutron diffraction study. Journal of Physics Condensed Matter, 2003, 15, 91-100.	0.7	9
68	Synthesis and functionalization of biocompatible $\text{Tb:CePO}_4$ nanophosphors with spindle-like shape. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	9
69	Crystal structure, NIR luminescence and X-ray computed tomography of $\text{Nd}^{3+}:\text{Ba}_{0.3}\text{Lu}_{0.7}\text{F}_2$ nanospheres. Dalton Transactions, 2017, 46, 6580-6587.	1.6	9
70	Formation of High-Temperature Lutetium Disilicate from Lutetium-Saturated Aluminosilicates in Mild Conditions. Incorporation of Si and Al XAS Techniques to the Study of These Systems. The Journal of Physical Chemistry, 1996, 100, 19559-19567.	2.9	8
71	Liquid-phase thiophene adsorption on MCM-22 zeolites. Acidity, adsorption behaviour and nature of the adsorbed products. Microporous and Mesoporous Materials, 2009, 118, 11-20.	2.2	8
72	$\text{BaGa}_4\text{O}_7$ , a new $\text{A}_3\text{BC}_{10}\text{O}_{20}$ crystalline phase: synthesis, structural determination and luminescence properties. CrystEngComm, 2015, 17, 6127-6135.	1.3	8

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73	Illitization of Kaolinite: The Effect of Pressure on the Reaction Rate. <i>Clays and Clay Minerals</i> , 2010, 58, 766-771.	0.6	7
74	Design of a nanoprobe for high field magnetic resonance imaging, dual energy X-ray computed tomography and luminescent imaging. <i>Journal of Colloid and Interface Science</i> , 2020, 573, 278-286.	5.0	7
75	Structure of Lu <sup>3+</sup> and La <sup>3+</sup> ions intercalated within layered clays as determined by EXAFS. <i>Physica B: Condensed Matter</i> , 1995, 208-209, 622-624.	1.3	6
76	Study of the reversibility on the local La <sup>3+</sup> environment after thermal and drying treatments in lanthanum-exchanged smectites. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1997, 133, 34-38.	0.6	6
77	Solubilization of toluene in surfactant bilayers formed in the interlayer space of vermiculite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1996, 119, 189-194.	2.3	5
78	Two-dimensional heteronuclear <sup>1</sup> H â†” <sup>27</sup> Al-correlated MAS NMR spectra of layered silicates. <i>Chemical Communications</i> , 2001, , 249-250.	2.2	5
79	The distribution of toluene in intercalation complexes of a vermiculite and alkyl trimethylammonium bromides. <i>Journal of Colloid and Interface Science</i> , 2003, 267, 265-271.	5.0	5
80	Microemulsionâ€”Mediated Synthesis and Properties of Uniform Ln:CaWO <sub>4</sub> (Ln = Eu, Dy) Nanophosphors with Multicolor Luminescence for Optical and CT Imaging. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 5158-5168.	1.0	5
81	NaY(MoO <sub>4</sub> ) <sub>2</sub> -based nanoparticles: synthesis, luminescence and photocatalytic properties. <i>Dalton Transactions</i> , 2021, 50, 16539-16547.	1.6	5
82	Highly uniform Y <sub>3</sub> Al <sub>2</sub> Ga <sub>3</sub> O <sub>12</sub> -based nanophosphors for persistent luminescence bioimaging in the visible and NIR regions. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 2454-2461.	3.0	5
83	Luminescence and X-ray Absorption Properties of Uniform Eu <sup>3+</sup> :(H <sub>3</sub> O)Lu <sub>3</sub> F <sub>10</sub> Nanoprobes. <i>Nanomaterials</i> , 2019, 9, 1153.	1.9	4
84	Encapsulation of Upconversion Nanoparticles in Periodic Mesoporous Organosilicas. <i>Molecules</i> , 2019, 24, 4054.	1.7	3
85	EXAFS study of the interaction of lanthanide cations with layered clays upon hydrothermal treatments. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1995, 97, 142-144.	0.6	2
86	Formation at 300Â°C of a high-temperature disilicate from hydrated lutetium in a layered aluminosilicate. <i>Clay Minerals</i> , 1996, 31, 507-512.	0.2	2
87	Arrangement of surfactant molecules in the internal surfaces of layered materials. <i>Physica B: Condensed Matter</i> , 1997, 234-236, 1096-1098.	1.3	2
88	Getting more out of X <sub>2</sub> T <sub>2</sub> O <sub>7</sub> compounds with thortveitite structure: The bond-valence model. <i>Journal of Solid State Chemistry</i> , 2008, 181, 340-344.	1.4	2
89	Influence of OHâ†” concentration on the illitization of kaolinite at high pressure. <i>Applied Clay Science</i> , 2011, 51, 220-225.	2.6	2
90	Structural, optical and X-ray attenuation properties of Tb <sup>3+</sup> :Ba <sub>x</sub> Ce <sub>1-x</sub> F <sub>3</sub> (x = 0.18â€”0.48) nanospheres synthesized in polyol medium. <i>Dalton Transactions</i> , 2018, 47, 8382-8391.		2

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91	Oxygen Vacancies in Perovskite and Related Structures: Implications for the Lower Mantle. Materials Research Society Symposia Proceedings, 2002, 718, 1.	0.1	1
92	Neodymium doped lanthanide fluoride nanoparticles as contrast agents for luminescent bioimaging and X-ray computed tomography. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2021, , .	0.9	1
93	Inherent Acidity of Aqua Metal Ions in Solids: An Assay in Layered Aluminosilicates.. ChemInform, 2003, 34, no.	0.1	0
94	Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of $\gamma$ -Yttrium Disilicate.. ChemInform, 2003, 34, no.	0.1	0
95	Experimental Study of the Ca Effect in the Cubic-Tetragonal Phase Transition of $\text{Ca}_{1-x}\text{Sr}_x\text{TiO}_3$ . Ferroelectrics, 2004, 301, 145-149.	0.3	0
96	XAFS Study of the Main Constituent Elements of Layered Aluminosilicates. European Physical Journal Special Topics, 1997, 7, C2-827-C2-828.	0.2	0