

# Carla Cannas

## List of Publications by Year in descending order

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110  
papers

4,499  
citations

76196

40  
h-index

114278

63  
g-index

111  
all docs

111  
docs citations

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times ranked

5865  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Magnetic Properties of Fe <sub>2</sub> O <sub>3</sub> Nanoparticles Dispersed over a Silica Matrix. Journal of Physical Chemistry B, 1998, 102, 7721-7726.	1.2	220
2	Studying the effect of Zn-substitution on the magnetic and hyperthermic properties of cobalt ferrite nanoparticles. Nanoscale, 2016, 8, 10124-10137.	2.8	176
3	Interparticle Interactions and Magnetic Anisotropy in Cobalt Ferrite Nanoparticles: Influence of Molecular Coating. Chemistry of Materials, 2012, 24, 1062-1071.	3.2	172
4	CoFe <sub>2</sub> O <sub>4</sub> and CoFe <sub>2</sub> O <sub>4</sub> /SiO <sub>2</sub> Core/Shell Nanoparticles: Magnetic and Spectroscopic Study. Chemistry of Materials, 2010, 22, 3353-3361.	3.2	160
5	Spin-glass-like freezing and enhanced magnetization in ultra-small CoFe <sub>2</sub> O <sub>4</sub> nanoparticles. Nanotechnology, 2010, 21, 125705.	1.3	157
6	Spin-Canting and Magnetic Anisotropy in Ultrasmall CoFe <sub>2</sub> O <sub>4</sub> Nanoparticles. Journal of Physical Chemistry B, 2008, 112, 8507-8513.	1.2	128
7	Cationic distribution and spin canting in CoFe <sub>2</sub> O <sub>4</sub> nanoparticles. Journal of Physics Condensed Matter, 2011, 23, 426004.	0.7	114
8	Beyond the Effect of Particle Size: Influence of CoFe <sub>2</sub> O <sub>4</sub> Nanoparticle Arrangements on Magnetic Properties. Chemistry of Materials, 2013, 25, 2005-2013.	3.2	112
9	Magnetic properties of cobalt ferrite-silica nanocomposites prepared by a sol-gel autocombustion technique. Journal of Chemical Physics, 2006, 125, 164714.	1.2	110
10	Synthesis and Characterization of CoFe <sub>2</sub> O <sub>4</sub> Nanoparticles Dispersed in a Silica Matrix by a Sol-Gel Autocombustion Method. Chemistry of Materials, 2006, 18, 3835-3842.	3.2	109
11	CoFe <sub>2</sub> O <sub>4</sub> nanocrystalline powders prepared by citrate-gel methods: Synthesis, structure and magnetic properties. Journal of Nanoparticle Research, 2006, 8, 255-267.	0.8	102
12	Nanostructured spinel cobalt ferrites: Fe and Co chemical state, cation distribution and size effects by X-ray photoelectron spectroscopy. RSC Advances, 2019, 9, 19171-19179.	1.7	100
13	Sol-Gel Pure and Mixed-Phase Titanium Dioxide for Photocatalytic Purposes: Relations between Phase Composition, Catalytic Activity, and Charge-Trapped Sites. Chemistry of Materials, 2008, 20, 4051-4061.	3.2	92
14	Spherical Nanoporous Assemblies of Iso-Oriented Cobalt Ferrite Nanoparticles: Synthesis, Microstructure, and Magnetic Properties. Chemistry of Materials, 2008, 20, 6364-6371.	3.2	88
15	Superparamagnetic behaviour of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> nanoparticles dispersed in a silica matrix. Physical Chemistry Chemical Physics, 2001, 3, 832-838.	1.3	74
16	Coexistence of Superparamagnetism and Spin-Glass Like Magnetic Ordering Phenomena in a CoFe <sub>2</sub> O <sub>4</sub> -SiO <sub>2</sub> Nanocomposite. Journal of Physical Chemistry C, 2008, 112, 5141-5147.	1.5	74
17	Magnetic properties of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> aerogel and xerogel nanocomposite materials. Journal of Materials Chemistry, 2001, 11, 3180-3187.	6.7	69
18	Optical and Structural Characterization of Terbium-Doped Y <sub>2</sub> SiO <sub>5</sub> Phosphor Particles. Journal of Physical Chemistry C, 2011, 115, 16630-16636.	1.5	68

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19	ZnO/SBA-15 composites for mid-temperature removal of H <sub>2</sub> S: Synthesis, performance and regeneration studies. <i>Fuel</i> , 2012, 102, 691-700.	3.4	66
20	Colloidal Bi <sub>2</sub> S <sub>3</sub> Nanocrystals: Quantum Size Effects and Midgap States. <i>Advanced Functional Materials</i> , 2014, 24, 3341-3350.	7.8	65
21	XRD, TEM and <sup>29</sup> Si MAS NMR study of sol-gel ZnO-SiO <sub>2</sub> nanocomposites. <i>Journal of Materials Chemistry</i> , 1999, 9, 1765-1769.	6.7	61
22	Magnetism in Nanoparticles: Beyond the Effect of Particle Size. <i>Chemistry - A European Journal</i> , 2009, 15, 7822-7829.	1.7	61
23	Evolution of the magnetic structure with chemical composition in spinel iron oxide nanoparticles. <i>Nanoscale</i> , 2015, 7, 13576-13585.	2.8	60
24	Spinel Ferrite Core-Shell Nanostructures by a Versatile Solvothermal Seed-Mediated Growth Approach and Study of Their Nanointerfaces. <i>ACS Nano</i> , 2017, 11, 7889-7900.	7.3	59
25	Magnetic Properties of Small Magnetite Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2013, 117, 23378-23384.	1.5	57
26	Highly active NiO-CeO <sub>2</sub> catalysts for synthetic natural gas production by CO <sub>2</sub> methanation. <i>Catalysis Today</i> , 2018, 299, 183-192.	2.2	55
27	The interplay between single particle anisotropy and interparticle interactions in ensembles of magnetic nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28634-28643.	1.3	54
28	Inversion degree and saturation magnetization of different nanocrystalline cobalt ferrites. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1893-1897.	1.0	51
29	CO <sub>2</sub> methanation on hard-templated NiO/CeO <sub>2</sub> mixed oxides. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 20689-20702.	3.8	51
30	MCM-41 support for ultras-small Fe <sub>2</sub> O <sub>3</sub> nanoparticles for H <sub>2</sub> S removal. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21688-21698.	5.2	51
31	How to tailor maghemite particle size in Fe <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> nanocomposites. <i>Journal of Materials Chemistry</i> , 2002, 12, 3141-3146.	6.7	50
32	Surfactant-assisted route to fabricate CoFe <sub>2</sub> O <sub>4</sub> individual nanoparticles and spherical assemblies. <i>Journal of Colloid and Interface Science</i> , 2010, 343, 415-422.	5.0	49
33	Synthesis and melting behaviour of Bi, Sn and Sn-Bi nanostructured alloy. <i>Journal of Alloys and Compounds</i> , 2015, 623, 7-14.	2.8	49
34	MeO <sub>x</sub> /SBA-15 (Me = Zn, Fe): highly efficient nanosorbents for mid-temperature H <sub>2</sub> S removal. <i>Journal of Materials Chemistry A</i> , 2014, 2, 19396-19406.	5.2	48
35	Modifications induced by pretreatments on Au/SBA-15 and their influence on the catalytic activity for low temperature CO oxidation. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 593-602.	1.3	46
36	Synthesis, characterisation and optical properties of nanocrystalline Y <sub>2</sub> O <sub>3</sub> -Eu <sup>3+</sup> dispersed in a silica matrix by a deposition-precipitation method. <i>Journal of Materials Chemistry</i> , 2003, 13, 3079-3084.	6.7	45

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37	New Synthesis of Ferrite-Silica Nanocomposites by a Sol-Gel Auto-Combustion. Journal of Nanoparticle Research, 2004, 6, 223-232.	0.8	44
38	Nanoparticle magnetization measurements by a high sensitive nano-superconducting quantum interference device. Applied Physics Letters, 2012, 101, .	1.5	44
39	CO oxidation and preferential oxidation of CO in the presence of hydrogen over SBA-15-templated CuO-Co <sub>3</sub> O <sub>4</sub> catalysts. Applied Catalysis A: General, 2012, 443-444, 161-170.	2.2	44
40	Mixed-1,10-phenanthroline-Cu(II) complexes: Synthesis, cytotoxic activity versus hematological and solid tumor cells and complex formation equilibria with glutathione. Journal of Inorganic Biochemistry, 2012, 114, 28-37.	1.5	41
41	Advances in the structure and microstructure determination of yttrium silicates using the Rietveld method. Journal of Solid State Chemistry, 2005, 178, 1526-1532.	1.4	39
42	Determination of Arsenic Speciation in Complex Environmental Samples by the Combined Use of TEM and XPS. Mikrochimica Acta, 2005, 151, 189-201.	2.5	37
43	ZnO/SiO <sub>2</sub> nanocomposites obtained by impregnation of mesoporous silica. Composites Science and Technology, 2003, 63, 1187-1191.	3.8	36
44	Nanocrystalline luminescent Eu <sup>3+</sup> -doped Y <sub>2</sub> SiO <sub>5</sub> prepared by sol-gel technique. Optical Materials, 2005, 27, 1506-1510.	1.7	36
45	Nanosheets of Two-Dimensional Neutral Coordination Polymers Based on Near-Infrared-Emitting Lanthanides and a Chlorocyananilate Ligand. Chemistry of Materials, 2018, 30, 6575-6586.	3.2	36
46	A one-step solvothermal route for the synthesis of nanocrystalline anatase TiO <sub>2</sub> doped with lanthanide ions. Journal of Solid State Chemistry, 2006, 179, 2452-2457.	1.4	35
47	Investigation of the precursors of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> in Fe <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> nanocomposites obtained through sol-gel. Journal of Non-Crystalline Solids, 2001, 286, 64-73.	1.5	32
48	High Yield Synthesis of Pure Alkanethiolate-Capped Silver Nanoparticles. Langmuir, 2010, 26, 15561-15566.	1.6	32
49	Coupled hard-soft spinel ferrite-based core-shell nanoarchitectures: magnetic properties and heating abilities. Nanoscale Advances, 2020, 2, 3191-3201.	2.2	32
50	Structural properties of biologically controlled hydrozincite: An HRTEM and NMR spectroscopic study. American Mineralogist, 2009, 94, 1698-1706.	0.9	31
51	Hierarchical Formation Mechanism of CoFe <sub>2</sub> O <sub>4</sub> Mesoporous Assemblies. ACS Nano, 2015, 9, 7277-7286.	7.3	30
52	Thermal hysteresis of Morin transition in hematite particles. Physical Chemistry Chemical Physics, 2010, 12, 6984.	1.3	29
53	Dialkylamide as Both Capping Agent and Surfactant in a Direct Solvothermal Synthesis of Magnetite and Titania Nanoparticles. Crystal Growth and Design, 2015, 15, 2364-2372.	1.4	29
54	Heteroleptic NIR-Emitting Yb <sup>III</sup> /Anilate-Based Neutral Coordination Polymer Nanosheets for Solvent Sensing. ACS Applied Nano Materials, 2020, 3, 94-104.	2.4	29

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55	Bifunctional FePt@MWCNTs/Ru Nanoarchitectures: Synthesis and Characterization. Chemistry of Materials, 2012, 24, 3393-3400.	3.2	28
56	Liquid Phase Synthesis of Nanostructured Spinel Ferrites—A Review. Journal of Nanoscience and Nanotechnology, 2019, 19, 4857-4887.	0.9	28
57	Physico-chemical characterization of IrO <sub>2</sub> @SnO <sub>2</sub> sol-gel nanopowders for electrochemical applications. Journal of Applied Electrochemistry, 2009, 39, 2093-2105.	1.5	27
58	SPION@liposomes hybrid nanoarchitectures with high density SPION association. Soft Matter, 2011, 7, 6239.	1.2	26
59	Synthesis, characterization and optical spectroscopy of a Y <sub>2</sub> O <sub>3</sub> @SiO <sub>2</sub> nanocomposite doped with Eu <sup>3+</sup> . Journal of Non-Crystalline Solids, 2002, 306, 193-199.	1.5	25
60	<sup>29</sup> Si CPMAS NMR and near-IR study of sol-gel microporous silica with tunable surface area. Journal of Non-Crystalline Solids, 2005, 351, 3476-3482.	1.5	25
61	Study of the nanoparticle/matrix interactions in Y <sub>2</sub> O <sub>3</sub> @SiO <sub>2</sub> samples. Physical Chemistry Chemical Physics, 2002, 4, 2286-2292.	1.3	24
62	Effect of red mud added to zeolite LTA synthesis: Where is Fe in the newly-formed material?. Microporous and Mesoporous Materials, 2020, 298, 110058.	2.2	24
63	Optical and structural characterization of cerium doped LYSO sol-gel polycrystal films: potential application as scintillator panel for X-ray imaging. Journal of Materials Chemistry, 2011, 21, 7771.	6.7	23
64	Monitoring early stages of silver particle formation in a polymer solution by in situ and time resolved small angle X-ray scattering. Nanoscale, 2010, 2, 2447.	2.8	22
65	Simple and fast preparation of pure maghemite nanopowders through sol-gel self-combustion. Journal of Sol-Gel Science and Technology, 2011, 60, 266-274.	1.1	22
66	Surface Effects Under Visible Irradiation and Heat Treatment on the Phase Stability of $\text{Fe}_2\text{O}_3$ Nanoparticles and $\text{Fe}_2\text{O}_3$ @SiO <sub>2</sub> Core-Shell Nanostructures. Journal of Physical Chemistry C, 2014, 118, 2857-2866.	1.5	22
67	Magnetic Interactions Versus Magnetic Anisotropy in Spinel Ferrite Nanoparticles. IEEE Magnetics Letters, 2019, 10, 1-5.	0.6	22
68	Magnetocrystalline and Surface Anisotropy in CoFe <sub>2</sub> O <sub>4</sub> Nanoparticles. Nanomaterials, 2020, 10, 1288.	1.9	22
69	Structural investigations and luminescence properties of nanocrystalline europium-doped yttrium silicates prepared by a sol-gel technique. Optical Materials, 2007, 29, 585-592.	1.7	21
70	Much More Than a Glass: The Complex Magnetic and Microstructural Properties of Obsidian. Journal of Physical Chemistry C, 2016, 120, 27635-27645.	1.5	21
71	Luminescence enhancement by energy transfer in melamine-Y <sub>2</sub> O <sub>3</sub> :Tb <sup>3+</sup> nanohybrids. Journal of Applied Physics, 2015, 118, .	1.1	20
72	$\text{Fe}_2\text{O}_3$ -M41S Sorbents for H <sub>2</sub> S Removal: Effect of Different Porous Structures and Silica Wall Thickness. Journal of Physical Chemistry C, 2018, 122, 12231-12242.	1.5	20

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73	High efficient fluorescent stable colloidal sealed dye-doped mesostructured silica nanoparticles. Microporous and Mesoporous Materials, 2016, 225, 432-439.	2.2	19
74	Mössbauer Spectroscopic Study of Fe <sub>2</sub> O <sub>3</sub> Nanoparticles Dispersed over a Silica Matrix. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1999, 54, 513-518.	0.7	18
75	Non-linear niobate nanocrystals for two-photon imaging. Optical Materials, 2011, 33, 258-266.	1.7	17
76	Gold-assisted E <sub>2</sub> centres formation on the silica surface of Au/SBA-15 catalysts for low temperature CO oxidation. Physical Chemistry Chemical Physics, 2012, 14, 6889.	1.3	15
77	Mesoporous hard-templated Me <sup>2+</sup> Co [Me = Cu, Fe] spinel oxides for water gas shift reaction. Journal of Porous Materials, 2014, 21, 539-549.	1.3	15
78	Hexafluorosilicic Acid (FSA): from Hazardous Waste to Precious Resource in Obtaining High Value-Added Mesostructured Silica. ACS Sustainable Chemistry and Engineering, 2020, 8, 14286-14300.	3.2	15
79	Exchange Bias in CoFe <sub>2</sub> O <sub>4</sub> /NiO nanocomposites. Superlattices and Microstructures, 2009, 46, 125-129.	1.4	14
80	Structural investigation and luminescence of nanocrystalline lanthanide doped NaNbO <sub>3</sub> and Na <sub>0.5</sub> K <sub>0.5</sub> NbO <sub>3</sub> . Journal of Solid State Chemistry, 2012, 196, 1-10.	1.4	14
81	Anchoring ultrasmall Fe <sup>III</sup> -based nanoparticles on silica and titania mesostructures for syngas H <sub>2</sub> S purification. Microporous and Mesoporous Materials, 2020, 298, 110062.	2.2	14
82	Core-shell nano-architectures: The incorporation mechanism of hydrophobic nanoparticles into the aqueous core of a microemulsion. Journal of Colloid and Interface Science, 2013, 407, 67-75.	5.0	13
83	Designing Magnetic NanoMOFs for Biomedicine: Current Trends and Applications. Magnetochemistry, 2020, 6, 39.	1.0	13
84	Mössbauer Investigation of <sup>57</sup> Fe-Fe <sub>2</sub> O <sub>3</sub> Nanocrystals in Silica Matrix Prepared by the Sol-gel Method. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2002, 57, 154-158.	0.7	12
85	A catalyst-free, waste-less ethanol-based solvothermal synthesis of amides. Green Chemistry, 2018, 20, 375-381.	4.6	12
86	Evolution of the Magnetic and Structural Properties with the Chemical Composition in Oleate-Capped Mn <sub>x</sub> Co <sub>1-x</sub> Fe <sub>2</sub> O <sub>4</sub> Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 20626-20638.	1.5	12
87	On the design of mesostructured acidic catalysts for the one-pot dimethyl ether production from CO <sub>2</sub> . Journal of CO <sub>2</sub> Utilization, 2022, 62, 102066.	3.3	12
88	Synthesis of L10 alloy nanoparticles. Potential and versatility of the pre-ordered Precursor Reduction strategy. Journal of Alloys and Compounds, 2020, 846, 156156.	2.8	11
89	Surface reactivity of Etna volcanic ash and evaluation of health risks. Science of the Total Environment, 2021, 761, 143248.	3.9	11
90	Meso- and macroporous silica-based arsenic adsorbents: effect of pore size, nature of the active phase, and silicon release. Nanoscale Advances, 2021, 3, 6100-6113.	2.2	11



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109	Nanoscaled Metal-Organic Frameworks: Challenges Towards Biomedical Applications. Journal of Nanoscience and Nanotechnology, 2021, 21, 2922-2929.	0.9	0
110	Technological insights on the Early-Middle Bronze Age pottery of Monte Meana cave (Sardinia, Italy). Heliyon, 2022, 8, e09171.	1.4	0