

Luis Esquivias

List of Publications by Year in descending order

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107
papers

2,056
citations

257450

24
h-index

289244

40
g-index

112
all docs

112
docs citations

112
times ranked

1660
citing authors

#	ARTICLE	IF	CITATIONS
1	Sol-gel processing of optical and electrooptical materials. <i>Advanced Materials</i> , 1995, 7, 120-129.	21.0	145
2	Procedure to use phosphogypsum industrial waste for mineral CO ₂ sequestration. <i>Journal of Hazardous Materials</i> , 2011, 196, 431-435.	12.4	99
3	Sonogels and derived materials. <i>Applied Organometallic Chemistry</i> , 1999, 13, 399-418.	3.5	91
4	Fractionation and fluxes of metals and radionuclides during the recycling process of phosphogypsum wastes applied to mineral CO ₂ sequestration. <i>Waste Management</i> , 2015, 45, 412-419.	7.4	90
5	Sol-gel synthesis of SiO ₂ -P ₂ O ₅ glasses. <i>Journal of Non-Crystalline Solids</i> , 1994, 176, 189-199.	3.1	88
6	Stress During Drying of Two Stone Consolidants Applied in Monumental Conservation. <i>Journal of Sol-Gel Science and Technology</i> , 2003, 26, 1227-1231.	2.4	72
7	New route for producing crack-free xerogels: Obtaining uniform pore size. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 645-650.	3.1	62
8	Chemically Active Silica Aerogel/Wollastonite Composites for CO ₂ Fixation by Carbonation Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 103-107.	3.7	49
9	Nanoindentation on hybrid organic/inorganic silica aerogels. <i>Journal of the European Ceramic Society</i> , 2007, 27, 3311-3316.	5.7	49
10	Larnite powders and larnite/silica aerogel composites as effective agents for CO ₂ sequestration by carbonation. <i>Journal of Hazardous Materials</i> , 2009, 168, 1397-1403.	12.4	47
11	Application of mercury porosimetry to the study of xerogels used as stone consolidants. <i>Journal of Non-Crystalline Solids</i> , 2002, 311, 185-194.	3.1	44
12	Structural study of silica sonogels. <i>Journal of Non-Crystalline Solids</i> , 1990, 121, 211-215.	3.1	43
13	Producing Crack-Free Colloid/Polymer Hybrid Gels by Tailoring Porosity. <i>Langmuir</i> , 2003, 19, 951-957.	3.5	43
14	Hydration and carbonation reactions of calcium oxide by weathering: Kinetics and changes in the nanostructure. <i>Chemical Engineering Journal</i> , 2015, 265, 194-200.	12.7	40
15	New method for carbon dioxide mineralization based on phosphogypsum and aluminium-rich industrial wastes resulting in valuable carbonated by-products. <i>Journal of CO₂ Utilization</i> , 2017, 18, 15-22.	6.8	34
16	Artificial weathering pools of calcium-rich industrial waste for CO ₂ sequestration. <i>Chemical Engineering Journal</i> , 2011, 166, 132-137.	12.7	33
17	Structural models of the amorphous alloy Ge _{0.20} As _{0.40} Se _{0.40} by a random technique. <i>Physical Review B</i> , 1986, 33, 4094-4099.	3.2	30
18	Kinetic study of gelation of solventless alkoxide-water mixtures. <i>Journal of Non-Crystalline Solids</i> , 1990, 121, 40-44.	3.1	30

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19	Preparation of rhodium catalysts dispersed on TiO ₂ /SiO ₂ aerogels. Journal of Non-Crystalline Solids, 1992, 147-148, 758-763.	3.1	30
20	Reinforced silica-carbon nanotube monolithic aerogels synthesised by rapid controlled gelation. Journal of Sol-Gel Science and Technology, 2018, 86, 391-399.	2.4	29
21	Effect of the method of preparation on the texture of TiO ₂ -SiO ₂ gels. Journal of Non-Crystalline Solids, 1990, 121, 84-89.	3.1	28
22	Phosphogypsum waste lime as a promising substitute of commercial limes: A rheological approach. Cement and Concrete Composites, 2019, 95, 205-216.	10.7	27
23	Silica aerogels with drying control chemical additives. Journal of Materials Science Letters, 1991, 10, 1237-1242.	0.5	26
24	Effect of Preparation Conditions on Phase Formation, Densification, and Microstructure Evolution in La ₂ O ₃ /Al ₂ O ₃ Composites. Journal of the American Ceramic Society, 1999, 82, 1318-1324.	3.8	26
25	Structural study of amorphous Al _{0.20} As _{0.50} Te _{0.30} , Al _{0.10} As _{0.40} Te _{0.50} and Al _{0.10} As _{0.20} Te _{0.70} by X-ray diffraction (II). Journal of Non-Crystalline Solids, 1985, 70, 221-232.	3.1	25
26	Removal of basic yellow cationic dye by an aqueous dispersion of Moroccan stevensite. Applied Clay Science, 2013, 80-81, 46-51.	5.2	25
27	Environmental Impact of Phosphogypsum-Derived Building Materials. International Journal of Environmental Research and Public Health, 2020, 17, 4248.	2.6	25
28	Fast CO ₂ sequestration by aerogel composites. Journal of Sol-Gel Science and Technology, 2008, 45, 291-297.	2.4	24
29	Structural models of dense aerogels. Journal of Non-Crystalline Solids, 1998, 225, 239-243.	3.1	21
30	The Cluster Model: A Simulation of the Aerogel Structure as a Hierarchically-Ordered Arrangement of Randomly Packed Spheres. Journal of Sol-Gel Science and Technology, 2005, 35, 203-210.	2.4	20
31	Structural characterization of nanosized silica spheres. Solid State Sciences, 2007, 9, 351-356.	3.2	20
32	Reactivity of CO ₂ traps in aerogel-wollastonite composites. Journal of Sol-Gel Science and Technology, 2008, 48, 224-230.	2.4	20
33	Mechanical characterization of sol-gel alumina-based ceramics with intragranular reinforcement of multiwalled carbon nanotubes. Ceramics International, 2020, 46, 19723-19730.	4.8	20
34	The Role of Precursor Concentration on the Characteristics of SiO ₂ -CaO Films. Journal of Sol-Gel Science and Technology, 2003, 26, 1179-1182.	2.4	19
35	SiO ₂ -CaO Vitreous Films Deposited onto Ti ₆ Al ₄ V Substrates. European Journal of Inorganic Chemistry, 2003, 2003, 1608-1613.	2.0	19
36	Bioactivity of wollastonite/aerogels composites obtained from a TEOS-MTES matrix. Journal of Materials Science: Materials in Medicine, 2008, 19, 2207-2213.	3.6	18

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37	Nanostructure and Bioactivity of Hybrid Aerogels. Chemistry of Materials, 2009, 21, 41-47.	6.7	18
38	The cluster model: A hierarchically-ordered assemblage of random-packing spheres for modelling microstructure of porous materials. Journal of Non-Crystalline Solids, 2008, 354, 193-198.	3.1	17
39	Technological Proposals for Recycling Industrial Wastes for Environmental Applications. Minerals (Basel, Switzerland), 2014, 4, 746-757.	2.0	17
40	Ultrastructural aspects of sonogels. Journal of Non-Crystalline Solids, 1992, 147-148, 194-200.	3.1	16
41	Ultrasound as a tool for the preparation of gels: effect on the textural properties of TiO ₂ -SiO ₂ aerogels. Journal of Materials Science, 1993, 28, 2191-2195.	3.7	16
42	Trapping copper phthalocyanine in a silica sono-xerogel. Journal of Sol-Gel Science and Technology, 1997, 8, 985-990.	2.4	15
43	Intragranular carbon nanotubes in alumina-based composites for reinforced ceramics. Journal of Sol-Gel Science and Technology, 2019, 90, 162-171.	2.4	15
44	Tetrahedral bonding in the glassy semiconductor Cu ₁₅ As ₃₄ Se ₅₁ . Materials Letters, 1986, 4, 481-484.	2.6	13
45	Ultrastructural evolution during gelation of TiO ₂ -SiO ₂ sols. Journal of Non-Crystalline Solids, 1992, 147-148, 206-212.	3.1	13
46	Structure of the Cu ₁₅ As ₃₄ Se ₅₁ amorphous alloy by extended X-ray absorption fine structure spectroscopy. Journal of Non-Crystalline Solids, 1994, 167, 59-64.	3.1	13
47	Control growth of PbS quantum dots doped sono-ormosil. Journal of Materials Research, 2001, 16, 2572-2578.	2.6	13
48	SANS study of hybrid silica aerogels under uniaxial compression. Journal of Sol-Gel Science and Technology, 2008, 45, 245-250.	2.4	13
49	A phase-separated model of Al _{0.23} Te _{0.77} amorphous alloy. Journal of Non-Crystalline Solids, 1985, 72, 165-169.	3.1	12
50	Mercury Porosimetry Applied to Sono-Aerogels. Journal of Sol-Gel Science and Technology, 2003, 26, 651-655.	2.4	12
51	Improvement of the bioactivity of organic-inorganic hybrid aerogels/wollastonite composites with TiO ₂ . Journal of Sol-Gel Science and Technology, 2008, 45, 261-267.	2.4	12
52	Aerogels con aplicaciones en biomedicina y medioambiente. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2007, 46, 138-144.	1.9	12
53	Processing of silica xerogels using sonocatalysis and an additive. Journal of Non-Crystalline Solids, 1992, 147-148, 296-302.	3.1	11
54	Modeling of the spatial structure by means of wide-angle x-ray scattering and extended x-ray-absorption fine structure for the Cu ₈ As ₂₆ Se ₆₆ and Cu ₂₆ As ₃₇ Se ₃₇ semiconductor alloys. Physical Review B, 1993, 48, 10110-10117.	3.2	11

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55	Aggregation process in silica aerogels on sintering. Journal of Non-Crystalline Solids, 1995, 192-193, 534-538.	3.1	11
56	Ellipsometric characterization of an AISI 304 stainless steel protective coating. Thin Solid Films, 1997, 301, 12-16.	1.8	11
57	Structure of Hybrid Colloid-Polymer Xerogels. Langmuir, 2004, 20, 3416-3423.	3.5	11
58	Creep and Stress Relaxation of Hybrid Organic-Inorganic Aerogels. Key Engineering Materials, 0, 423, 167-172.	0.4	11
59	CdS semiconductor nanoparticles in silica sonogel matrices. Journal of Sol-Gel Science and Technology, 1994, 2, 689-694.	2.4	10
60	Short-range order of titania doped silica sono-aerogel. Journal of Non-Crystalline Solids, 1997, 220, 45-51.	3.1	10
61	Photoluminescence from CdS Quantum Dots in Silica Gel. Journal of Sol-Gel Science and Technology, 2003, 26, 947-951.	2.4	10
62	Percolation of the organic phase in hybrid organic-inorganic aerogels. Journal of Sol-Gel Science and Technology, 2009, 50, 170-175.	2.4	10
63	Aerogels Synthesis by Sonocatalysis: Sonogels. , 2011, , 419-445.		10
64	Absorption capacity, kinetics and mechanical behaviour in dry and wet states of hydrophobic DEDMS/TEOS-based silica aerogels. Journal of Sol-Gel Science and Technology, 2017, 81, 600-610.	2.4	10
65	Electrode-holding devices with an incorporated contact pressure regulating system, designed for the switching effect in amorphous materials. Review of Scientific Instruments, 1985, 56, 1262-1264.	1.3	9
66	Short-range order of yttria doped zirconia powders study by X-ray absorption (I). Journal of Alloys and Compounds, 1995, 228, 188-194.	5.5	9
67	Structural study of amorphous Al _{0.20} As _{0.50} Te _{0.30} , Al _{0.10} As _{0.40} Te _{0.50} and Al _{0.10} As _{0.20} Te _{0.70} by x-ray diffraction (I). Journal of Non-Crystalline Solids, 1985, 70, 211-219.	3.1	8
68	CdS-silica xerogel nanocomposites: Processing-induced textural changes. Journal of Materials Research, 1994, 9, 2873-2877.	2.6	8
69	Short-range order of yttria doped zirconia powders studied by X-ray absorption (II). Journal of Alloys and Compounds, 1996, 239, 71-76.	5.5	8
70	Bioactive organic-inorganic hybrid aerogels. Materials Research Society Symposia Proceedings, 2004, 847, 97.	0.1	8
71	Flue gas adsorption by single-wall carbon nanotubes: A Monte Carlo study. Journal of Chemical Physics, 2016, 145, 074701.	3.0	8
72	Comments on the formation process and the electrical nature of lock-on filament in Ge _{0.9} As ₂₀ Te ₇₁ glass. Journal of Non-Crystalline Solids, 1986, 81, 255-259.	3.1	7

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73	Carbon dioxide sequestration by phosphogypsum based procedure. , 2018, , 199-223.		7
74	Characterization and Analysis of the Carbonation Process of a Lime Mortar Obtained from Phosphogypsum Waste. International Journal of Environmental Research and Public Health, 2021, 18, 6664.	2.6	7
75	Propiedades mecánicas de aerogeles híbridos de sílice. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2005, 44, 291-293.	1.9	7
76	Ultrastructural evolution during sintering of mixed sonogels. Journal of Sol-Gel Science and Technology, 1994, 3, 41-46.	2.4	6
77	CdS nanocrystals embedded in silica sonogel. Scripta Materialia, 1995, 5, 363-372.	0.5	6
78	5YSZ powders from gels: Densification and microstructure characterization. Journal of the European Ceramic Society, 1998, 18, 1429-1438.	5.7	6
79	Recent insights into xerogel and aerogel mineral composites for CO ₂ mineral sequestration. Journal of Sol-Gel Science and Technology, 2011, 59, 417-423.	2.4	6
80	Rietveld analysis and mechanical properties of in situ formed La ¹² -Al ₂ O ₃ /Al ₂ O ₃ composites prepared by sol-gel method. Ceramics International, 2022, 48, 24462-24470.	4.8	6
81	EXAFS Study of the Cu ₁₅ As ₃₄ Se Amorphous Alloys. Physica Status Solidi (B): Basic Research, 1992, 169, 303-311.	1.5	5
82	SANS Study of CdS and CdSe Quantum Dot Crystal Growth in a Silica Matrix by Sol-Gel. Journal of Sol-Gel Science and Technology, 1998, 13, 629-633.	2.4	5
83	Small Angle Neutron Scattering Study of PbS Quantum Dots Synthetic Routes via Sol-Gel. Journal of Sol-Gel Science and Technology, 2003, 26, 527-531.	2.4	5
84	THE RISE OF THE GOSSIP PRESS IN SPAIN. Journalism Studies, 2007, 8, 621-633.	2.1	5
85	Changes in the structure of composite colloid-polymer xerogels after cold isostatic pressing. Journal of Sol-Gel Science and Technology, 2008, 47, 194-202.	2.4	5
86	Topological features of Cu ₁₅ As ₃₄ Se ₅₁ glassy semiconductor. Journal of Materials Science Letters, 1988, 7, 105-107.	0.5	4
87	Obtaining and sintering yttria stabilized zirconia (YSZ) powders from alkoxides. Journal of Sol-Gel Science and Technology, 1994, 2, 347-352.	2.4	4
88	CdSe Nanocrystals Formation in Silica Sonogels. Materials Research Society Symposia Proceedings, 1994, 346, 673.	0.1	4
89	Structural models of dense gels. Journal of Sol-Gel Science and Technology, 1997, 8, 117-123.	2.4	4
90	Calcium silicates synthesised from industrial residues with the ability for CO ₂ sequestration. Waste Management and Research, 2014, 32, 1178-1185.	3.9	4

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91	Atomic arrangement in the glassy semiconductor Ge ₃₀ As ₂₀ Se ₅₀ . Materials Research Bulletin, 1986, 21, 1167-1174.	5.2	3
92	Ultrasound-processed silica xerogels behavior during heating. Materials Letters, 1995, 22, 265-270.	2.6	3
93	Structure of CdS/SiO ₂ Nanocomposites: Influence of the Precursor and Cd Concentration. Journal of Sol-Gel Science and Technology, 1998, 11, 217-227.	2.4	3
94	Controlled size of PbS nanocrystals doped ORMOSIL. Optical Materials, 2003, 22, 1-6.	3.6	3
95	Structure of bioactive mixed polymer/colloid aerogels. Journal of Non-Crystalline Solids, 2005, 351, 3347-3355.	3.1	3
96	Mechanical Properties of Bioactive Hybrid Organic/Inorganic Aerogels. Key Engineering Materials, 0, 423, 155-160.	0.4	3
97	Xerogels, Aerogels, and Aerogel/Mineral Composites for CO ₂ Sequestration. , 2016, , 1-20.		2
98	Mechanical Properties of Organic-Inorganic Hybrid Black Coating of Silica and Polyurethane. Key Engineering Materials, 0, 423, 161-165.	0.4	1
99	Hybrid aerogels and bioactive aerogels under uniaxial compression: an in situ SAXS study. Revista De Metalurgia, 2010, 46, 143-148.	0.5	1
100	The medium-range order and the interference functions of structural models of Ge ₂₀ As ₄₀ Se ₄₀ and Ge ₃₀ As ₂₀ Se ₅₀ amorphous alloys. Journal of Non-Crystalline Solids, 1986, 85, 239-243.	3.1	0
101	Aggregation model of sonogels on sintering. Journal of Non-Crystalline Solids, 1996, 196, 297-303.	3.1	0
102	Behaviour of sonogels under isotropic pressure. Comptes Rendus Chimie, 2010, 13, 282-289.	0.5	0
103	Advances in Aerogels made by Sonocatalysis. Transactions of the Indian Ceramic Society, 2010, 69, 125-130.	1.0	0
104	Nano-scale Creep Compliance of Hybrid Aerogels. Materials Research Society Symposia Proceedings, 2011, 1306, 1.	0.1	0
105	Caracterizaci3n de capas coloreadas sobre AISI 304. Revista De Metalurgia, 1998, 34, 105-108.	0.5	0
106	Xerogels, Aerogels, and Aerogel/Mineral Composites for CO ₂ Sequestration. , 2018, , 2535-2554.		0
107	TEXTURAL CHARACTERISTICS OF AEROGELS OBTAINED FROM SONOGELS. Journal De Physique Colloque, 1989, 24, C4-233-C4-238.	0.2	0