Sandra DirÃ¨

List of Publications by Year
in descending order

124 papers	2,694 citations	186265 28 h-index	233421 45 g-index
124 all docs	124 docs citations	124 times ranked	3168 citing authors

#	Article	IF	Citations
1	Electron and Energy Transfer Mechanisms: The Double Nature of TiO2 Heterogeneous Photocatalysis. Topics in Current Chemistry, 2022, 380, 2.	5.8	9
2	Features and application of coupled cold plasma and photocatalysis processes for decontamination of water. Chemosphere, 2021, 262, 128336.	8.2	15
3	In Situ 3D Printing: Opportunities with Silk Inks. Trends in Biotechnology, 2021, 39, 719-730.	9.3	54
4	A Bio-inspired Multifunctionalized Silk Fibroin. ACS Biomaterials Science and Engineering, 2021, 7, 507-516.	5.2	18
5	A novel and selective silk fibroin fragmentation method. Soft Matter, 2021, 17, 6863-6872.	2.7	4
6	Electrostatic bellow muscle actuators and energy harvesters that stack up. Science Robotics, 2021, 6, .	17.6	26
7	Merging the Solâ€“Gel Technique with the Pulsed Microplasma Cluster Source Deposition to Improve Control over the Memristive Response of TiO2 Thin Films. Coatings, 2021, 11, 348.	2.6	0
8	MoS2 Based Photodetectors: A Review. Sensors, 2021, 21, 2758.	3.8	77
9	Design of a Zn Single-Site Curing Activator for a More Sustainable Sulfur Cross-Link Formation in Rubber. Industrial & Engineering Chemistry Research, 2021, 60, 10180-10192.	3.7	17
10	Functionalization of TiO2 sol-gel derived films for cell confinement. Colloids and Surfaces B: Biointerfaces, 2021, 204, 111787.	5.0	2
11	Effect of Hydrothermal Treatment and Doping on the Microstructural Features of Sol-Gel Derived BaTiO3 Nanoparticles. Materials, 2021, 14, 4345.	2.9	9
12	Optical and radioluminescence properties of ZnO:Zn as a function of reduction degree and treatment temperature. Journal of Applied Physics, 2021, 130, 085104.	2.5	0
13	TiO2 containing hybrid nanocomposites with activeâ€“passive oxygen scavenging capability. Chemical Engineering Journal, 2021, 417, 129135.	12.7	9
14	Boosting sericin extraction through alternative silk sources. Polymer Journal, 2021, 53, 1425-1437.	2.7	7
15	Thin Films of Plasma-Polymerized n-Hexane and ZnO Nanoparticles Co-Deposited via Atmospheric Pressure Plasma Jet. Coatings, 2021, 11, 167.	2.6	6
16	Silica hairy nanoparticles: a promising material for self-assembling processes. Soft Matter, 2021, 17, 9434-9446.	2.7	7
17	Synthesis and characterization of Nd3+-Yb3+ doped hydroxyapatite nanoparticles. Optical Materials: X, 2021, 12, 100118.	0.8	0
18	Effect of functionalized graphene oxide concentration on the corrosion resistance properties provided by cataphoretic acrylic coatings. Materials Chemistry and Physics, 2020, 239, 121984.	4.0	29

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19	Super-adsorbent polyacrylate under swelling in water for passive solar control of building envelope. SN Applied Sciences, 2020, 2, 1.	2.9	9
20	Effects of Graphene-Based Fillers on Cathodic Delamination and Abrasion Resistance of Cataphoretic Organic Coatings. Coatings, 2020, 10, 602.	2.6	18
21	SiO2/Ladder-Like Polysilsesquioxanes Nanocomposite Coatings: Playing with the Hybrid Interface for Tuning Thermal Properties and Wettability. Coatings, 2020, 10, 913.	2.6	13
22	Graphene-Based Reinforcing Filler for Double-Layer Acrylic Coatings. Materials, 2020, 13, 4499.	2.9	14
23	Corrosion protection properties of functionalised grapheneâ€“acrylate coatings produced via cataphoretic deposition. Progress in Organic Coatings, 2019, 136, 105261.	3.9	14
24	Flash sintering of Mg-doped tricalcium phosphate (TCP) nanopowders. Journal of the European Ceramic Society, 2019, 39, 3883-3892.	5.7	12
25	Docosane-Organosilica Microcapsules for Structural Composites with Thermal Energy Storage/Release Capability. Materials, 2019, 12, 1286.	2.9	45
26	Effect of the Organic Functional Group on the Grafting Ability of Trialkoxysilanes onto Graphene Oxide: A Combined NMR, XRD, and ESR Study. Materials, 2019, 12, 3828.	2.9	16
27	Electrostatic actuator for tactile display based on hydraulically coupled dielectric fluids and soft structures. , 2019, , .		6
28	Size-controlled self-assembly of anisotropic sepiolite fibers in rubber nanocomposites. Applied Clay Science, 2018, 152, 51-64.	5.2	35
29	Unveiling the hybrid interface in polymer nanocomposites enclosing silsesquioxanes with tunable molecular structure: Spectroscopic, thermal and mechanical properties. Journal of Colloid and Interface Science, 2018, 512, 609-617.	9.4	20
30	Versatile and Scalable Strategy To Grow Solâ€“Gel Derived 2H-MoS₂ Thin Films with Superior Electronic Properties: A Memristive Case. ACS Applied Materials & Interfaces, 2018, 10, 34392-34400.	8.0	22
31	Properties of anion exchange membrane based on polyamine: Effect of functionalized silica particles prepared by solâ€“gel method. Solid State Ionics, 2018, 322, 85-92.	2.7	21
32	Silk Fibroin Porous Scaffolds Loaded with a Slow-Releasing Hydrogen Sulfide Agent (GYY4137) for Applications of Tissue Engineering. ACS Biomaterials Science and Engineering, 2018, 4, 2956-2966.	5.2	25
33	Tailoring the Dielectric and Mechanical Properties of Polybutadiene Nanocomposites by Using Designed Ladder-like Polysilsesquioxanes. ACS Applied Nano Materials, 2018, 1, 3817-3828.	5.0	15
34	Architecture of Silsesquioxanes. , 2018, , 3119-3151.		4
35	The development of solâ€“gel derived TiO₂ thin films and corresponding memristor architectures. RSC Advances, 2017, 7, 1654-1663.	3.6	24
36	Influence of Ce 3+ doping on molecular organization of Si-based organic/inorganic sol-gel layers for corrosion protection. Applied Surface Science, 2017, 414, 82-91.	6.1	42

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37	Hybrid SiO₂@POSS nanofiller: a promising reinforcing system for rubber nanocomposites. Materials Chemistry Frontiers, 2017, 1, 1441-1452.	5.9	26
38	Filler-matrix interaction in sodium montmorillonite-organosilica nanocomposite coatings for corrosion protection. Applied Clay Science, 2017, 150, 81-88.	5.2	13
39	Chemical modification and structural rearrangements of polyketoneâ€based polymer membrane. Journal of Applied Polymer Science, 2017, 134, 45485.	2.6	17
40	Synthesis and characterization of strontium-substituted hydroxyapatite nanoparticles for bone regeneration. Materials Science and Engineering C, 2017, 71, 653-662.	7.3	117
41	Hybrid Coatings Enriched with Tetraethoxysilane for Corrosion Mitigation of Hot-Dip Galvanized Steel in Chloride Contaminated Simulated Concrete Pore Solutions. Materials, 2017, 10, 306.	2.9	13
42	Hydrophobic Coatings by Thiol-Ene Click Functionalization of Silsesquioxanes with Tunable Architecture. Materials, 2017, 10, 913.	2.9	4
43	Smart and Covalently Crossâ€Linked: Hybrid Shape Memory Materials Reinforced through Covalent Bonds by Zirconium Oxoclusters. ChemPlusChem, 2016, 81, 338-350.	2.8	4
44	Mechanism and Kinetics of Oligosilsesquioxane Growth in the In Situ Water Production Solâ€“Gel Route: Dependence on Water Availability. European Journal of Inorganic Chemistry, 2016, 2016, 2166-2174.	2.0	13
45	Sol-gel synthesis and characterization of undoped and Al-doped ZnO thin films for memristive application. AIP Advances, 2016, 6, .	1.3	16
46	Processing Influence on Molecular Assembling and Structural Conformations in Silk Fibroin: Elucidation by Solid-State NMR. ACS Biomaterials Science and Engineering, 2016, 2, 758-767.	5.2	29
47	Towards low voltage resistive switch in sol-gel derived TiO2/Ta2O5 stack thin films. Materials and Design, 2016, 105, 359-365.	7.0	13
48	Sol-gel derived oriented multilayer ZnO thin films with memristive response. Thin Solid Films, 2016, 615, 427-436.	1.8	11
49	Architecture of Silsesquioxanes. , 2016, , 1-34.		0
50	Influence of Solâ€“Gel Conditions on the Growth of Thiol-Functionalized Silsesquioxanes Prepared by <I>In Situ</I> Water Production. Journal of Nanoscience and Nanotechnology, 2016, 16, 3030-3038.	0.9	8
51	Optimisation and memristive response of sol-gel derived TiO<inf>2</inf> thin films. , 2015, , .		2
52	Morphologic, structural, and optical characterization of sol-gel derived TiO2 thin films for memristive devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 192-196.	0.8	15
53	ZnO nanoparticles anchored to silica filler. A curing accelerator for isoprene rubber composites. Chemical Engineering Journal, 2015, 275, 245-252.	12.7	55
54	Structural characterization of sol-gel ZnO thin films on different substrates for memristive application. , 2015, , .		2

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55	Synthesis and characterization of the first transparent silicon oxycarbide aerogel obtained through H2decarbonization. Journal of Materials Chemistry A, 2015, 3, 24405-24413.	10.3	23
56	Silicification of wood adopted for barrel production using pure silicon alkoxides in gas phase to avoid microbial colonisation. Food Microbiology, 2015, 45, 135-146.	4.2	4
57	Solid state NMR and IR characterization of wood polymer structure in relation to tree provenance. Carbohydrate Polymers, 2015, 117, 710-721.	10.2	78
58	Micro- and nano-hydroxyapatite as active reinforcement for soft biocomposites. International Journal of Biological Macromolecules, 2015, 72, 199-209.	7.5	41
59	Effect of Na-Montmorillonite sonication on the protective properties of hybrid silica coatings. Electrochimica Acta, 2014, 124, 90-99.	5.2	58
60	Adsorptive properties of solâ€“gel derived hybrid organic/inorganic coatings. Materials Chemistry and Physics, 2014, 147, 954-962.	4.0	13
61	A novel non-aqueous solâ€“gel route for the in situ synthesis of high loaded silicaâ€“rubber nanocomposites. Soft Matter, 2014, 10, 2234-2244.	2.7	15
62	Structureâ€related behavior of hybrid organicâ€“inorganic materials prepared in different synthesis conditions from Zrâ€based NBBs and 3â€methacryloxypropyl trimethoxysilane. Journal of Applied Polymer Science, 2012, 125, 1713-1723.	2.6	10
63	Hydrophobic siloxane paper coatings: the effect of increasing methyl substitution. Journal of Sol-Gel Science and Technology, 2012, 62, 441-452.	2.4	30
64	Comparison of open volumes in silica based thin films produced by different precursors. Journal of Physics: Conference Series, 2011, 265, 012024.	0.4	0
65	Study of the effect of organically functionalized silica nanoparticles on the properties of UV curable acrylic coatings. Progress in Organic Coatings, 2011, 72, 44-51.	3.9	10
66	Effect of functional groups on condensation and properties of solâ€“gel silica nanoparticles prepared by direct synthesis from organoalkoxysilanes. Materials Chemistry and Physics, 2011, 126, 909-917.	4.0	34
67	Influence of synthesis conditions on the cross-link architecture of silsesquioxanes prepared by in situ water production route. Journal of Sol-Gel Science and Technology, 2011, 60, 236-245.	2.4	15
68	Hybrid organicâ€“inorganic materials using zirconium based NBBs and vinyl trimethoxysilane: Effect of pre-hydrolysis of silane. Polymer, 2010, 51, 832-841.	3.8	21
69	Characterization of Nano-structured UV Cured Acrylic Coatings. ECS Transactions, 2010, 24, 51-66.	0.5	4
70	Influence of the polymer architecture on the high temperature behavior of SiCO glasses: A comparison between linear- and cyclic-derived precursors. Journal of Non-Crystalline Solids, 2010, 356, 132-140.	3.1	65
71	Growth of nanotubes in sol-gel-derived V₂O₅ powders and films prepared under acidic conditions. Journal of Materials Research, 2009, 24, 475-481.	2.6	9
72	New Monofunctional POSS and Its Utilization as Dewetting Additive in Methacrylate Based Free-Standing Films. Chemistry of Materials, 2009, 21, 4163-4171.	6.7	27

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73	Hybrid organic/inorganic materials for photonic applications via assembling of nanostructured molecular units. Journal of Sol-Gel Science and Technology, 2008, 48, 217-223.	2.4	13
74	Si and Zr based NBBS for hybrid O/I macromolecular materials starting by preformed zirconium oxo-clusters. Journal of Sol-Gel Science and Technology, 2008, 48, 168-171.	2.4	15
75	A low-cost method for producing high-performance nanocomposite thin-films made from silica and CNTs on cellulose substrates. Journal of Materials Science, 2008, 43, 4862-4869.	3.7	13
76	Immobilization of yeast and bacteria cells in alginate microbeads coated with silica membranes: procedures, physico-chemical features and bioactivity. Journal of Materials Chemistry, 2008, 18, 4839.	6.7	59
77	Photonic devices based on patterning by two photon induced polymerization techniques. Proceedings of SPIE, 2008, , .	0.8	1
78	Subfemtosecond dynamics of structural protons in silica xerogels. Physical Review B, 2008, 77, .	3.2	10
79	Structural evolution of nanoporous silica thin films studied by positron annihilation spectroscopy and Fourier transform infrared spectroscopy. Journal Physics D: Applied Physics, 2007, 40, 5266-5274.	2.8	9
80	Photopolymerization of hybrid organic/inorganic materials based on nanostructured units for photonic applications. , 2007, 6645, 397.		2
81	Size stabilization of nanoparticles by polysaccharides: Effectiveness in the wet and curing steps. Journal of Materials Research, 2007, 22, 3344-3354.	2.6	7
82	Nanometric oxides from molecular precursors in the presence of starch: Coatings of glass with these oxides in silica sols. Journal of Materials Research, 2006, 21, 1726-1737.	2.6	8
83	Investigation of high-energy inelastic neutron scattering from liquid water confined in silica xerogel. Physica B: Condensed Matter, 2006, 385-386, 1095-1097.	2.7	2
84	Nanopowders of metallic oxides prepared by the hydrolytic route with starch stabilization and biological abetment. Journal of Nanoscience and Nanotechnology, 2006, 6, 254-7.	0.9	0
85	YSZ freestanding films from hybrid polymerâ€“oxide composites by the solâ€“gel process: Influence of polymer features on ceramic microstructure. Journal of the European Ceramic Society, 2005, 25, 2647-2650.	5.7	5
86	Hybrid organicâ€“inorganic films by assembling of Siâ€“Zr-based nanobuilding blocks. Journal of the European Ceramic Society, 2005, 25, 2051-2054.	5.7	2
87	Structural and Microstructural Evolution During Pyrolysis of Hybrid Polydimethylsiloxane-Titania Nanocomposites. Journal of Sol-Gel Science and Technology, 2005, 34, 53-62.	2.4	38
88	Hybrid Siloxane-Based Nano Building Blocks for Optical Applications: Optimization of the Synthetic Procedures by Spectroscopic Analysis. Journal of Sol-Gel Science and Technology, 2005, 35, 151-157.	2.4	7
89	Pyrolysis study of sol-gel derived zirconia by TG-GC-MS. Journal of Thermal Analysis and Calorimetry, 2005, 81, 407-415.	3.6	15
90	Modification and Characterization of Si-Based Nanobuilding Blocks Precursors for Hybrid Materials. Materials Research Society Symposia Proceedings, 2004, 847, 180.	0.1	4

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91	Siloxane-Based Nanobuilding Blocks by Reaction Between Silanediol and Trifunctional Silicon Alkoxides. Journal of Sol-Gel Science and Technology, 2004, 32, 57-61.	2.4	6
92	Photoluminescence Spectroscopy of Er3+/Yb3+ Co-Activated Silica-Alumina Monolithic Xerogels. Journal of Sol-Gel Science and Technology, 2004, 32, 267-271.	2.4	1
93	Sol-gel synthesis of polymer-YSZ hybrid materials for SOFC technology. Journal of the European Ceramic Society, 2004, 24, 1371-1374.	5.7	26
94	Fabrication and characterization of optical planar waveguides activated by erbium ions for 1.5-Î¼m applications. , 2004, 5451, 574.		6
95	Sol-Gel Derived Polysiloxane-Oxide Hybrid Materials: Extent of Phase Interaction. Journal of Sol-Gel Science and Technology, 2003, 26, 285-290.	2.4	8
96	Pyrolysis pathway of solâ€“gel derived organic/inorganic hybrid nanocomposites. Journal of Non-Crystalline Solids, 2003, 322, 22-28.	3.1	11
97	Hydroxylated Cyclophosphazene/Silica Hybrid Materials: Synthesis and Characterization. Journal of Inorganic and Organometallic Polymers, 2002, 12, 59-78.	1.5	5
98	Synthesis of Ni metal particles by reaction between bis(cyclooctadiene)nickel(0) and solâ€“gel SiO2 modified with Siâ€“H groups.. Journal of Materials Chemistry, 2001, 11, 678-683.	6.7	17
99	Title is missing!. Magyar AprÃ³vad KÃ¶zlemÃ©nyek, 2001, 66, 37-46.	1.4	29
100	Thermal evolution and crystallisation of polydimethylsiloxaneâ€“zirconia nanocomposites prepared by the solâ€“gel method. Journal of the European Ceramic Society, 1999, 19, 2849-2858.	5.7	37
101	Structure-property behavior during aging of sol-gel-derived silica modified with Siâ€“H and Siâ€“CH3 groups. Journal of Materials Research, 1999, 14, 2100-2106.	2.6	4
102	Pyrolysis Chemistry of Solâ^'Gel-Derived Poly(dimethylsiloxane)â^'Zirconia Nanocomposites. Influence of Zirconium on Polymer-to-Ceramic Conversion. Chemistry of Materials, 1998, 10, 268-278.	6.7	46
103	Unsupported SiO2-based organicâ€“inorganic membranes. Journal of Materials Chemistry, 1997, 7, 919-922.	6.7	21
104	Unsupported SiO2-based organicâ€“inorganic membranes. Journal of Materials Chemistry, 1997, 7, 67-73.	6.7	39
105	A comparative analysis of surface structure and surface tension of hybrid silica films. Journal of Non-Crystalline Solids, 1997, 209, 51-60.	3.1	32
106	Surface Chemical Structure of SÃ¤2-TiO₂ Sol-Gel Powders. Materials Research Society Symposia Proceedings, 1994, 346, 421.	0.1	2
107	Structural evolution during pyrolysis of sol-gel derived hybrid materials. Journal of Sol-Gel Science and Technology, 1994, 2, 139-142.	2.4	17
108	Aging effect on the mechanical properties of hybrid gels. Journal of Sol-Gel Science and Technology, 1994, 2, 143-146.	2.4	6

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109	Sol-gel precursors: a spectroscopic study of transesterification reactions between silicon and titanium alkoxides. Journal of Non-Crystalline Solids, 1994, 167, 29-36.	3.1	31
110	Solâ€"Gel Synthesis of Heterometallic Oxopolymers. ACS Symposium Series, 1994, , 134-148.	0.5	6
111	XPS studies of SiO2-TiO2 powders prepared by sol-gel process. Applied Surface Science, 1993, 70-71, 230-234.	6.1	95
112	Entrapment of viable microorganisms by SiO2 sol-gel layers on glass surfaces: Trapping, catalytic performance and immobilization durability of Saccharomyces cerevisiae. Journal of Biotechnology, 1993, 30, 197-210.	3.8	111
113	Phase separation in gel-derived materials, separation and crystallization of SnO₂ within an amorphous SiO₂ matrix. Journal of Materials Research, 1992, 7, 435-443.	2.6	14
114	Structural Investigation of Sol-Gel-Derived Hybrid Siloxane-Oxide Materials Using 29Si MAS-NMR Spectroscopy. Materials Research Society Symposia Proceedings, 1992, 286, 289.	0.1	13
115	Synthesis and characterization of siloxane-titania materials. Journal of Non-Crystalline Solids, 1992, 147-148, 62-66.	3.1	36
116	Silicon Oxycarbide Glasses from Sol-Gel Precursors. Materials Research Society Symposia Proceedings, 1992, 271, 789.	0.1	53
117	Solâ€“gel synthesis of siloxaneâ€“oxide hybrid coatings [Si(CH3)2OÂ·MOx: M = Si, Ti, Zr, Al] with luminescent properties. Journal of Materials Chemistry, 1992, 2, 239-244.	6.7	118
118	Cems characterization of SnO2 films obtained by sputtering and sol-gel route. Hyperfine Interactions, 1992, 69, 619-622.	0.5	7
119	Alcoholic Fermentation with Saccharomyces cerevisiae Trapped in SiO2 Films. , 1992, , 151-157.		1
120	Effect Of SnO2 on the Mechanical Properties of SiO2/SnO2 Gel-Derived Composites. Materials Research Society Symposia Proceedings, 1990, 180, 351.	0.1	4
121	Carbon monoxide insertion into trans-Pt(Î·1-C3H5)-(phosphine2)Cl complexes in benzene. Crystal		