Lisa C Klein

List of Publications by Year
in descending order

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126 papers	3,282 citations	147801 31 h-index	175258 52 g-index
137 all docs	137 docs citations	137 times ranked	2578 citing authors

#	Article	IF	Citations
1	Sol-Gel Processing of Silicates. Annual Review of Materials Research, 1985, 15, 227-248.	5.5	263
2	Preparation and Characterization of BaxSr1-x, TiO3 Thin Films by a Sol-Gel Technique. Journal of the American Ceramic Society, 1996, 79, 1593-1598.	3.8	174
3	The Electrochemistry of Zn[sub 3]N[sub 2] and LiZnN. Journal of the Electrochemical Society, 2002, 149, A262.	2.9	158
4	Electrochemistry of Cu[sub 3]N with Lithium. Journal of the Electrochemical Society, 2003, 150, A1273.	2.9	153
5	Effect of precursors on the structure of phosphosilicate gels: 29Si and 31P MAS-NMR study. Journal of Non-Crystalline Solids, 1992, 143, 21-30.	3.1	128
6	Bismuth Fluoride Nanocomposite as a Positive Electrode Material for Rechargeable Lithium Batteries. Electrochemical and Solid-State Letters, 2005, 8, A179.	2.2	111
7	Densification of monolithic silica gels below 1000Â°C. Journal of Non-Crystalline Solids, 1984, 63, 23-33.	3.1	78
8	Investigation of the Lithiation and Delithiation Conversion Mechanisms of Bismuth Fluoride Nanocomposites. Journal of the Electrochemical Society, 2006, 153, A799.	2.9	76
9	Reversible Conversion Reactions with Lithium in Bismuth Oxyfluoride Nanocomposites. Journal of the Electrochemical Society, 2006, 153, A159.	2.9	76
10	The Electrochemistry of Germanium Nitride with Lithium. Journal of the Electrochemical Society, 2003, 150, A1118.	2.9	72
11	Preparation of nanoporous silicaâ€“zirconia layers byin situsolâ€“gel method. Materials Science and Technology, 2006, 22, 611-614.	1.6	68
12	Sol-Gel Optical Materials. Annual Review of Materials Research, 1993, 23, 437-452.	5.5	65
13	Synthesis and Characterization of Amorphous Si2N2O. Journal of the American Ceramic Society, 1994, 77, 2699-2702.	3.8	65
14	Monolithic dried gels. Journal of Non-Crystalline Solids, 1982, 48, 97-104.	3.1	54
15	Early Stages of Alumina Sol-Gel Formation in Acidic Media: An 27Al Nuclear Magnetic Resonance Spectroscopy Investigation. Journal of the American Ceramic Society, 1988, 71, C-85-C-87.	3.8	46
16	Transparent inorganic/organic copolymers by the Sol-Gel process: Copolymers of tetraethyl orthosilicate (TEOS), vinyl triethoxysilane (VTES) and (meth)acrylate monomers. Journal of Sol-Gel Science and Technology, 1995, 4, 57-66.	2.4	45
17	Optical spectra of sodium phosphate glasses. Journal of Non-Crystalline Solids, 1984, 68, 75-86.	3.1	43
18	Hydrolysis in the Aluminum sec-Butoxide-Water-Isopropyl Alcohol System: II, Aging and Microstructure. Journal of the American Ceramic Society, 1988, 71, 86-90.	3.8	43

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19	Transparent Organic/Inorganic Hybrid Gels: A Classification Scheme. Applied Organometallic Chemistry, 1997, 11, 129-135.	3.5	43
20	Characterization of SiO2-P2O5-ZrO2 Sol-Gel/NAFIONâ„¢ Composite Membranes. Journal of Sol-Gel Science and Technology, 2003, 26, 1055-1059.	2.4	43
21	Particle size and multiphase effects on cycling stability using tin-based materials. Solid State Ionics, 2004, 167, 29-40.	2.7	43
22	Methods for modifying proton exchange membranes using the solâ€“gel process. Polymer, 2005, 46, 4504-4509.	3.8	43
23	Corrosion Protection of AISI 304 Stainless Steel with Melting Gel Coatings. Electrochimica Acta, 2016, 202, 325-332.	5.2	42
24	Vanadium oxideâ€“propylene carbonate composite as a host for the intercalation of polyvalent cations. Solid State Ionics, 2005, 176, 2735-2747.	2.7	41
25	Synthesis and Characterization of Nafion/60SiO[sub 2]-30P[sub 2]O[sub 5]-10ZrO[sub 2] Sol-Gel Composite Membranes for PEMFCs. Journal of the Electrochemical Society, 2005, 152, A493.	2.9	40
26	Hydrolysis in the Aluminum sec-Butoxide-Water-Isopropyl Alcohol System: I, Rheology and Gel Structures. Journal of the American Ceramic Society, 1988, 71, 83-85.	3.8	38
27	Stability of lithium silicate gels. Journal of Non-Crystalline Solids, 1986, 83, 391-399.	3.1	36
28	Nucleation kinetics of sodium disilicate. Journal of Crystal Growth, 1977, 42, 47-51.	1.5	34
29	Methyl modified siloxane melting gels for hydrophobic films. Journal of Sol-Gel Science and Technology, 2010, 53, 272-279.	2.4	34
30	Thermal analysis of organically modified siloxane melting gels. Journal of Thermal Analysis and Calorimetry, 2012, 107, 1039-1045.	3.6	34
31	Phenylâ€Substituted Siloxane Hybrid Gels that Soften Below 140Â°C. Journal of the American Ceramic Society, 2009, 92, 36-40.	3.8	33
32	Pore structures of sol-gel silica membranes. Journal of Membrane Science, 1988, 39, 213-220.	8.2	32
33	Electron-spin-resonance (ESR) study of sol-gel glasses. Journal of Non-Crystalline Solids, 1985, 71, 327-333.	3.1	31
34	Obtaining Thickness-Limited Electrospray Deposition for 3D Coating. ACS Applied Materials & Interfaces, 2018, 10, 11175-11188.	8.0	31
35	Sol-Gel Synthesis and Characterization of SiO2â€”P2O5â€”ZrO2. Journal of Sol-Gel Science and Technology, 2003, 28, 199-204.	2.4	30
36	Hybrid Solâ€“Gel Glasses with Glassâ€Transition Temperatures Below RoomÂTemperature. Journal of the American Ceramic Society, 2015, 98, 3673-3679.	3.8	29

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37	Consolidated Melting Gel Coatings on AZ31 Magnesium Alloy with Excellent Corrosion Resistance in NaCl Solutions: An Interface Study. ACS Applied Materials & Interfaces, 2019, 11, 3493-3505.	8.0	26
38	Microporous oxides by the sol-gel process: synthesis and applications. Catalysis Today, 1992, 14, 165-173.	4.4	25
39	Hygroscopic-oxides/NafionÂ® hybrid electrolyte for direct methanol fuel cells. Journal of Membrane Science, 2006, 281, 619-625.	8.2	25
40	Characterization and optical properties of solâ€“gel processed PMMA/SiO2 hybrid monoliths. Journal of Non-Crystalline Solids, 2007, 353, 2807-2812.	3.1	25
41	Apparent viscosity of sol-gel processed silica. Journal of Non-Crystalline Solids, 1986, 82, 198-204.	3.1	23
42	Processing Alumina Gels: Effects on Surface Area and Pore Volume. Advanced Ceramic Materials, 1988, 3, 167-170.	2.2	22
43	X-ray diffraction and29Si NMR study of polymerized and infiltrated lithium silicate gels. Journal of Non-Crystalline Solids, 1990, 124, 91-100.	3.1	22
44	Soft-Chemistry Synthesis and Characterization of Bismuth Oxyfluorides and Ammonium Bismuth Fluorides. Journal of the American Ceramic Society, 2006, 89, 645-651.	3.8	22
45	Organicâ€“inorganic hybrid melting gels. Journal of Sol-Gel Science and Technology, 2010, 55, 86-93.	2.4	22
46	Glycol-based sol-gel process for the fabrication of ferroelectric PZT thin films. Journal of Sol-Gel Science and Technology, 1994, 2, 605-609.	2.4	21
47	Thin and Thick RuO2-TiO2Coatings on Titanium Substrates by the Sol-Gel Process. Journal of Sol-Gel Science and Technology, 2004, 29, 81-88.	2.4	21
48	Solâ€“gel synthesis of erbium-doped yttrium silicate glassâ€“ceramics. Journal of Non-Crystalline Solids, 2008, 354, 3567-3571.	3.1	21
49	Silica membranes by the solâ€”gel process. Journal of Colloid and Interface Science, 1986, 109, 40-45.	9.4	20
50	Organicâ€“inorganic sol-gel thick films for humidity barriers. Journal of Materials Research, 2008, 23, 2084-2090.	2.6	20
51	Transparent inorganic/organic copolymers by the sol-gel process: Thermal behavior of copolymers of tetraethyl orthosilicate (TEOS), vinyl triethoxysilane (VTES) and (meth)acrylate monomers. Journal of Sol-Gel Science and Technology, 1995, 5, 77-82.	2.4	19
52	Effect of methanol concentration on lithium aluminosilicate gels. Journal of Non-Crystalline Solids, 1989, 109, 69-78.	3.1	18
53	Crystallization of lithium aluminosilicate gels. Journal of Non-Crystalline Solids, 1988, 102, 269-274.	3.1	17
54	Effect of precursors on lithium containing silicate gels studied by 7Li nuclear magnetic resonance. Journal of Non-Crystalline Solids, 1990, 121, 90-97.	3.1	17

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55	Densification of sol-gel silica: Constant rate heating, isothermal and step heat treatments. Journal of Non-Crystalline Solids, 1990, 121, 119-123.	3.1	17
56	²⁹Si NMR and SAXS investigation of the hybrid organicâ€“inorganic glasses obtained by consolidation of the melting gels. Dalton Transactions, 2017, 46, 3729-3741.	3.3	17
57	Shrinkage of lithium aluminosilicate gels during drying. Journal of Non-Crystalline Solids, 1987, 93, 415-422.	3.1	15
58	The effect of precursors on the ionic conductivity in lithium silicate gels. Solid State Ionics, 1991, 46, 291-297.	2.7	15
59	Ionic conductivity and structure of lithium chloride-alumina-silica xerogels. Chemistry of Materials, 1992, 4, 191-197.	6.7	15
60	Organic-inorganic gels based on silica and multifunctional acrylates. Journal of Sol-Gel Science and Technology, 1994, 2, 115-120.	2.4	15
61	High molecular weight poly(ethylene oxide)/silica hybrids by the sol-gel process. Materials Science and Engineering C, 1998, 6, 115-120.	7.3	15
62	Preparation, characterization and ionic conductivity of (LiCl)2-B2O3-SiO2 xerogels. Solid State Ionics, 1991, 47, 297-304.	2.7	14
63	Zirconia Gels in Concentrated NaOH. Journal of the American Ceramic Society, 1995, 78, 221-224.	3.8	14
64	Perturbed-Angular-Correlation Study of Zirconias Produced by the Sol-Gel Method. Journal of the American Ceramic Society, 1995, 78, 1329-1334.	3.8	13
65	Supported Alumina Members by an in-Situ Sol-Gel Method. Journal of the American Ceramic Society, 1992, 75, 2613-2614.	3.8	12
66	Thermal weight loss of silica-poly(vinyl acetate) (PVAc) sol-gel composites. Journal of Thermal Analysis, 1996, 46, 55-65.	0.6	12
67	Dielectric behavior of organically modified siloxane melting gels. Journal of Non-Crystalline Solids, 2012, 358, 3501-3504.	3.1	11
68	Sintering, crystallization, and breccia formation. The Moon, 1975, 13, 277-284.	0.4	10
69	Elastic Properties of Silica Xerogels. Journal of the American Ceramic Society, 1990, 73, 3466-3469.	3.8	10
70	Analysis of precursor residues in lithium aluminosilicate gels using XPS and RGA. Journal of Non-Crystalline Solids, 1990, 120, 267-274.	3.1	10
71	Ac complex impedance, dc resistivity, 7Li and 23Na NMR studies of the layered Li(Na)xMo2O4 system. Solid State Ionics, 1991, 46, 283-289.	2.7	9
72	Unsupported alkoxide-derived silica membranes. Colloids and Surfaces, 1992, 63, 173-179.	0.9	9

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73	Sol-gel electrolytes in lithium batteries. Journal of Sol-Gel Science and Technology, 1994, 2, 611-613.	2.4	9
74	Evolution of the Phase Content of Zirconia Powders Prepared by Solâ€Gel Acid Hydrolysis. Journal of the American Ceramic Society, 1998, 81, 200-204.	3.8	9
75	Red, violet and upconversion luminescence of Eu/Sm codoped sol gel SiO2â€“TiO2. Optical Materials, 2012, 35, 292-296.	3.6	9
76	Applications of melting gels. Journal of Sol-Gel Science and Technology, 2019, 89, 66-77.	2.4	9
77	Oxide Coatings from the Sol-Gel Process. Ceramic Engineering and Science Proceedings, 0, , 379-384.	0.1	9
78	Lithia distribution in infiltrated silica gels. Journal of Non-Crystalline Solids, 1990, 122, 291-297.	3.1	8
79	Sol-Gel Coatings. , 1991, , 501-522.		8
80	Characterization of Supported Alumina Membranes Formed by an in situ Sol-Gel Method. Journal of the American Ceramic Society, 1995, 78, 3149-3152.	3.8	8
81	Experimental Design Applied to the Chemical Durability of Solâ€“Gelâ€Đerived Zirconias. Journal of the American Ceramic Society, 1997, 80, 1469-1476.	3.8	8
82	Sol-Gel Process for Proton Exchange Membranes. Key Engineering Materials, 2008, 391, 159-168.	0.4	8
83	High temperature visible spectroscopy of Co2+ ions in sodium phosphate glasses. Journal of Non-Crystalline Solids, 1986, 79, 75-82.	3.1	7
84	Effect of dehydration on the viscosity of sol-gel processed silica. Journal of Non-Crystalline Solids, 1988, 100, 429-434.	3.1	7
85	Mechanical Properties of Silica Xerogels. Journal of the American Ceramic Society, 1991, 74, 1469-1471.	3.8	7
86	Ionic conductivity in lithium aluminosilicate xerogels and gel films. Solid State Ionics, 1995, 81, 217-224.	2.7	7
87	Unidirectional crystallization of potassium disilicate II. Experimental study. Journal of Crystal Growth, 1983, 64, 479-484.	1.5	6
88	Effects of water content of gels on sol-gel glass structures. Journal of Non-Crystalline Solids, 1986, 84, 325-328.	3.1	6
89	Processing and dielectric properties of sol-gel derived bst thin films. Integrated Ferroelectrics, 1997, 15, 99-106.	0.7	6
90	Solution Preparation of Li(Co, Fe)O2 Coatings for Molten Carbonate Fuel Cell Components. Journal of Sol-Gel Science and Technology, 2001, 21, 203-211.	2.4	6

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91	Gold nanoparticles in melting gels. Journal of Sol-Gel Science and Technology, 2019, 91, 189-197.	2.4	6
92	Investigation of the Effect of Dimethylformamide Addition on Alumina Sol-Gel Formation by ²⁷Al NMR and Rheology Measurements. Materials Research Society Symposia Proceedings, 1988, 121, 133.	0.1	5
93	Synthesis of Alumina and Silica-Containing Alumina Xerogel Hosts. Journal of Sol-Gel Science and Technology, 1997, 10, 177-184.	2.4	5
94	Silica-Containing Hybrid Nanocomposite "Melting Gels". Materials Science Forum, 0, 783-786, 1432-1437.	0.3	5
95	Nanocomposite Fabrication for Transparent Windows. , 1994, , 215-232.		5
96	Modifying Nafion with Nanostructured Inorganic Oxides for Proton Exchange Membrane Fuel Cells. Materials Research Society Symposia Proceedings, 2004, 822, S8.4.1.	0.1	4
97	Solâ€“Gel Hybrids for Electronic Applications: Hermetic Coatings for Microelectronics and Energy Storage. , 2009, , 429-453.		4
98	Progress in proton conducting sol-gel glasses. Journal of Sol-Gel Science and Technology, 2022, 102, 482-492.	2.4	4
99	Evaluation of the Kinetic Parameters of the Sodium Insertion in Sodium Molybdates by Impedance Spectroscopy. Journal of the Electrochemical Society, 1992, 139, 2359-2362.	2.9	3
100	<title>Organically modified silicate coatings for optical fibers</title>. , 1994, 2074, 135.		3
101	Phase separation in melting gels. Journal of Commonwealth Law and Legal Education, 2017, 58, 142-149.	0.5	3
102	Transparent Microporous Silica Fibers by the Sol-Gel Process. Proceedings of SPIE, 1986, , .	0.8	2
103	The effect of heat treatment time on lithium-containing Al2O3SiO2 gels: a study by 7Li NMR. Journal of Non-Crystalline Solids, 1992, 146, 129-136.	3.1	2
104	Sol-Gel Lithium Silicate Electrolyte Thin Films. Materials Research Society Symposia Proceedings, 1994, 346, 189.	0.1	2
105	Advanced Ceramics Processing. , 0, , 1113-1128.		2
106	Nanostructure of Er3+ doped silicates. Microscopy (Oxford, England), 2005, 54, 309-315.	1.5	2
107	Effect of tetraethoxysilane (TEOS) on melting gel behavior. Journal of the American Ceramic Society, 2020, 103, 4140-4149.	3.8	2
108	Sol-Gel Packaging for Electrochemical Devices. , 2012, , 375-392.		2

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109	Unidirectional crystallization of potassium disilicate. Journal of Crystal Growth, 1983, 64, 471-478.	1.5	1
110	Transparent Microporous Silica By The Sol-Gel Process. Proceedings of SPIE, 1984, , .	0.8	1
111	<title>Controlling transparency in polyethylene (PEO)/silica gels</title>. , 1997, , .		1
112	Mechanical Properties of Soluble Polymer/Silica Gel Hybrids. Materials Research Society Symposia Proceedings, 1999, 576, 337.	0.1	1
113	Ac Impedance Spectroscopy Study of Modified Proton-Exchange Membrane Nanocomposites. Materials Research Society Symposia Proceedings, 2002, 733, 1.	0.1	1
114	Broad, flat fluorescence emissions from nanostructured rare-earth doped silicates. , 2004, , .		1
115	Melting Gel Films for Low Temperature Seals. Materials Research Society Symposia Proceedings, 2013, 1547, 81-86.	0.1	1
116	Electrochemical Properties of Melting Gel Coatings. , 0, , 233-241.		1
117	Sol-Gel Glasses. Springer Handbooks, 2019, , 1333-1354.	0.6	1
118	Texturing melting gels for water harvesting. Journal of Sol-Gel Science and Technology, 0, , 1.	2.4	1
119	Identification of the sodium diffusion mechanisms within the layered Na(Li)xMo2O4 system. Effect of water and exchange of sodium by lithium. Solid State Ionics, 1992, 58, 163-172.	2.7	0
120	Transparent polymer/silica hybrid gels. , 1997, , .		0
121	The Electrochemistry of Germanium Nitride Versus Lithium. Materials Research Society Symposia Proceedings, 2002, 756, 1.	0.1	0
122	OPTICAL MATERIALS | Sol-Gel Materials. , 2005, , 16-21.		0
123	The journal has survived its teenage years. Journal of Sol-Gel Science and Technology, 2009, 50, 2-2.	2.4	0
124	The monolith challenge. Journal of Sol-Gel Science and Technology, 2019, 90, 2-7.	2.4	0
125	Focused laser spike (FLaSk) thermocapillary patterning of micro/nanostructures. , 2019, , .		0
126	Silica Gels for Atmospheric Water Harvesting. , 2019, , .		0