# Richard Laine

List of Publications by Year
in descending order

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|---|---|---|---|
| 240 papers | 11,942 citations | 22153 59 h-index | 31849 101 g-index |
| 247 all docs | 247 docs citations | 247 times ranked | 6990 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Organic/Inorganic Hybrid Composites from Cubic Silsesquioxanes. Journal of the American Chemical Society, 2001, 123, 11420-11430. | 13.7 | 460 |
| 2 | Nanobuilding blocks based on the [OSiO1.5]x (x= 6, 8, 10) octasilsesquioxanes. Journal of Materials Chemistry, 2005, 15, 3725. | 6.7 | 421 |
| 3 | Highly Porous Polyhedral Silsesquioxane Polymers. Synthesis and Characterization. Journal of the American Chemical Society, 1998, 120, 8380-8391. | 13.7 | 373 |
| 4 | Preceramic polymer routes to silicon carbide. Chemistry of Materials, 1993, 5, 260-279. | 6.7 | 299 |
| 5 | Octa(aminophenyl)silsesquioxane as a Nanoconstruction Site. Journal of the American Chemical Society, 2001, 123, 12416-12417. | 13.7 | 283 |
| 6 | Silsesquioxanes as Synthetic Platforms. Thermally Curable and Photocurable Inorganic/Organic Hybrids. Macromolecules, 1996, 29, 2327-2330. | 4.8 | 260 |
| 7 | Organic/Inorganic Hybrid Composites from Cubic Silsesquioxanes. Epoxy Resins of Octa(dimethylsiloxyethylcyclohexylepoxide) Silsesquioxane. Macromolecules, 2003, 36, 5666-5682. | 4.8 | 257 |
| 8 | Hydrosilylation of Allyl Alcohol with [HSiMe2OSiO1.5]8: Octa(3-hydroxypropyldimethylsiloxy)octasilsesquioxane and Its Octamethacrylate Derivative as Potential Precursors to Hybrid Nanocomposites. Journal of the American Chemical Society, 2000, 122, 6979-6988. | 13.7 | 251 |
| 9 | Organic/Inorganic Hybrid Epoxy Nanocomposites from Aminophenylsilsesquioxanes. Macromolecules, 2004, 37, 99-109. | 4.8 | 230 |
| 10 | Organicâ€“Inorganic Nanocomposites with Completely Defined Interfacial Interactions. Advanced Materials, 2001, 13, 800-803. | 21.0 | 229 |
| 11 | Polyhedral Phenylsilsesquioxanes. Macromolecules, 2011, 44, 1073-1109. | 4.8 | 227 |
| 12 | Lithium Ion Conducting Poly(ethylene oxide)-Based Solid Electrolytes Containing Active or Passive Ceramic Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 2563-2573. | 3.1 | 222 |
| 13 | Organic/Inorganic Imide Nanocomposites from Aminophenylsilsesquioxanes. Chemistry of Materials, 2003, 15, 3365-3375. | 6.7 | 196 |
| 14 | Homogeneous catalysis by ruthenium carbonyl in alkaline solution: the water gas shift reaction. Journal of the American Chemical Society, 1977, 99, 252-253. | 13.7 | 192 |
| 15 | Silsesquioxanes as Synthetic Platforms. 3. Photocurable, Liquid Epoxides as Inorganic/Organic Hybrid Precursors. Chemistry of Materials, 1996, 8, 1592-1593. | 6.7 | 183 |
| 16 | A Polyimide Nanocomposite from Octa(aminophenyl)silsesquioxane. Chemistry of Materials, 2003, 15, 793-797. | 6.7 | 179 |
| 17 | Ultrafine Spinel Powders by Flame Spray Pyrolysis of a Magnesium Aluminum Double Alkoxide. Journal of the American Ceramic Society, 1996, 79, 1419-1423. | 3.8 | 171 |
| 18 | Toughening of Cubic Silsesquioxane Epoxy Nanocomposites Using Coreâ^'Shell Rubber Particles:Â A Three-Component Hybrid System. Macromolecules, 2004, 37, 3267-3276. | 4.8 | 153 |

| # | Article | IF | Citations |
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| 19 | Organic/Inorganic Nanocomposite Star Polymers via Atom Transfer Radical Polymerization of Methyl Methacrylate Using Octafunctional Silsesquioxane Cores. Macromolecules, 2001, 34, 5398-5407. | 4.8 | 150 |
| 20 | Polyfunctional cubic silsesquioxanes as building blocks for organic/inorganic hybrids. Applied Organometallic Chemistry, 1998, 12, 715-723. | 3.5 | 148 |
| 21 | Transparent, Polycrystalline Upconverting Nanoceramics: Towards 3â€D Displays. Advanced Materials, 2008, 20, 1270-1273. | 21.0 | 144 |
| 22 | Synthesis of pentacoordinate silicon complexes from SiO2. Nature, 1991, 353, 642-644. | 27.8 | 141 |
| 23 | Flame made nanoparticles permit processing of dense, flexible, Li<sup>+</sup> conducting ceramic electrolyte thin films of cubic-Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub> (c-LLZO). Journal of Materials Chemistry A, 2016, 4, 12947-12954. | 10.3 | 131 |
| 24 | Criteria for identifying transition metal cluster-catalyzed reactions. Journal of Molecular Catalysis, 1982, 14, 137-169. | 1.2 | 125 |
| 25 | para-Octaiodophenylsilsesquioxane, [p-IC<sub>6</sub>H<sub>4</sub>SiO<sub>1.5</sub>]<sub>8</sub>, a Nearly Perfect Nano-Building Block. ACS Nano, 2008, 2, 320-326. | 14.6 | 119 |
| 26 | Silsesquioxanes as synthetic platforms. II. Epoxy-functionalized inorganic-organic hybrid species. Journal of Organometallic Chemistry, 1996, 521, 199-201. | 1.8 | 118 |
| 27 | Poly(methylsilane)-A High Ceramic Yield Precursor to Silicon Carbide. Journal of the American Ceramic Society, 1991, 74, 670-673. | 3.8 | 116 |
| 28 | Molecules with Perfect Cubic Symmetry as Nanobuilding Blocks for 3-D Assemblies. Elaboration of Octavinylsilsesquioxane. Unusual Luminescence Shifts May Indicate Extended Conjugation Involving the Silsesquioxane Core. Chemistry of Materials, 2008, 20, 5563-5573. | 6.7 | 116 |
| 29 | Homogeneous catalysis of the water-gas shift reaction. Journal of Molecular Catalysis, 1988, 44, 357-387. | 1.2 | 106 |
| 30 | Nano Building Blocks via Iodination of [PhSiO<sub>1.5</sub>]<sub>n</sub>, Forming [p-I-C<sub>6</sub>H<sub>4</sub>SiO<sub>1.5</sub>]<sub>n</sub> (n = 8, 10, 12), and a New Route to High-Surface-Area, Thermally Stable, Microporous Materials via Thermal Elimination of I<sub>2</sub>. Journal of the American Chemical Society, 2010, 132, 10171-10183. | 13.7 | 106 |
| 31 | Yttrium Aluminum Garnet Nanopowders Produced by Liquid-Feed Flame Spray Pyrolysis (LF-FSP) of Metalloorganic Precursors. Chemistry of Materials, 2004, 16, 822-831. | 6.7 | 102 |
| 32 | Liquid-Feed Flame Spray Pyrolysis of Metalloorganic and Inorganic Alumina Sources in the Production of Nanoalumina Powders. Chemistry of Materials, 2004, 16, 21-30. | 6.7 | 97 |
| 33 | Octa(3-chloroammoniumpropyl) octasilsesquioxane. Applied Organometallic Chemistry, 1999, 13, 329-336. | 3.5 | 95 |
| 34 | Potential models of the interactions between nitrogen-containing heterocycles and the active catalyst sites in heterogeneous hydrodenitrogenation catalysts. Organometallics, 1985, 4, 2033-2039. | 2.3 | 94 |
| 35 | Fluoride Rearrangement Reactions of Polyphenyl- and Polyvinylsilsesquioxanes as a Facile Route to Mixed Functional Phenyl, Vinyl T<sub>10</sub>and T<sub>12</sub>Silsesquioxanes. Journal of the American Chemical Society, 2010, 132, 3723-3736. | 13.7 | 94 |
| 36 | Homogeneous catalysis of the water gas shift reaction by mixed-metal (iron/ruthenium) catalysts. Journal of the American Chemical Society, 1978, 100, 4595-4597. | 13.7 | 92 |

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| 37 | Laser action in strongly scattering rare-earth-metal-doped dielectric nanophosphors. Physical Review A, 2001, 65, . | 2.5 | 92 |
| 38 | Key parameters governing the densification of cubic-Li7La3Zr2O12 Li+ conductors. Journal of Power Sources, 2017, 352, 156-164. | 7.8 | 92 |
| 39 | Nano-Î±-Al2O3 by liquid-feed flame spray pyrolysis. Nature Materials, 2006, 5, 710-712. | 27.5 | 91 |
| 40 | Analyzing Structureâ€“Photophysical Property Relationships for Isolated T<sub>8</sub>, T<sub>10</sub>, and T<sub>12</sub> Stilbenevinylsilsesquioxanes. Journal of the American Chemical Society, 2013, 135, 12259-12269. | 13.7 | 90 |
| 41 | Applications of the water-gas shift reaction. Hydroformylation and hydrohydroxymethylation with carbon monoxide and water. Journal of the American Chemical Society, 1978, 100, 6451-6454. | 13.7 | 89 |
| 42 | Ultrafine titania by flame spray pyrolysis of a titanatrane complex. Journal of the European Ceramic Society, 1998, 18, 287-297. | 5.7 | 89 |
| 43 | MgAl2O4 spinel powders from oxide one pot synthesis (OOPS) process for ceramic humidity sensors. Journal of the European Ceramic Society, 2000, 20, 91-97. | 5.7 | 87 |
| 44 | Catalytic methods for the synthesis of oligosilazanes. Organometallics, 1986, 5, 2081-2086. | 2.3 | 83 |
| 45 | Synthesis and Characterization of Liquid Crystalline Silsesquioxanes. Chemistry of Materials, 2001, 13, 3653-3662. | 6.7 | 83 |
| 46 | Synthesis of Yttrium Aluminum Garnet from Yttrium and Aluminum Isobutyrate Precursors. Journal of the American Ceramic Society, 1996, 79, 385-394. | 3.8 | 74 |
| 47 | Silsesquioxane Barrier Materials. Macromolecules, 2007, 40, 555-562. | 4.8 | 73 |
| 48 | A New Y3Al5O12 Phase Produced by Liquid-Feed Flame Spray Pyrolysis (LF-FSP). Advanced Materials, 2005, 17, 830-833. | 21.0 | 72 |
| 49 | Synthesis and Photophysical Properties of Stilbeneoctasilsesquioxanes. Emission Behavior Coupled with Theoretical Modeling Studies Suggest a 3-D Excited State Involving the Silica Core. Journal of the American Chemical Society, 2010, 132, 3708-3722. | 13.7 | 71 |
| 50 | Flame Spray Pyrolysis of Precursors as a Route to Nanoâ€mullite Powder: Powder Characterization and Sintering Behavior. Journal of the American Ceramic Society, 2001, 84, 951-961. | 3.8 | 69 |
| 51 | Reactivity of metal radicals generated photochemically. Effects of solvent and of trapping agent concentrations on quantum yields for photolysis of hexacarbonylbis(.pi.-cyclopentadienyl)ditungsten(I), [.pi.-CpW(CO)3]2. Inorganic Chemistry, 1977, 16, 388-391. | 4.0 | 68 |
| 52 | Metallic palladium, the actual catalyst in Lindlar and Rosenmund reductions?. Journal of Organic Chemistry, 1983, 48, 4436-4438. | 3.2 | 65 |
| 53 | Spherical, Polyfunctional Molecules Using Poly(bromophenylsilsesquioxane)s as Nanoconstruction Sites. Macromolecules, 2005, 38, 4655-4660. | 4.8 | 65 |
| 54 | Liquid-Feed Flame Spray Pyrolysis as a Method of Producing Mixed-Metal Oxide Nanopowders of Potential Interest as Catalytic Materials. Nanopowders along the NiOâ€“Al2O3Tie Line Including (NiO)0.22(Al2O3)0.78, a New Inverse Spinel Composition. Chemistry of Materials, 2006, 18, 731-739. | 6.7 | 65 |

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| 55 | Porous Networks Assembled from Octaphenylsilsesquioxane Building Blocks. Macromolecules, 2010, 43, 6995-7000. | 4.8 | 65 |
| 56 | Catalysis of the aminomethylation reaction. Enhanced catalytic activity with mixed-metal catalysts. Applications of the water-gas shift reaction. 5. Journal of Organic Chemistry, 1980, 45, 3370-3372. | 3.2 | 64 |
| 57 | Molecular structure of tris(diphenylacetylene)tungsten monocarbonyl. Journal of the American Chemical Society, 1972, 94, 1402-1403. | 13.7 | 63 |
| 58 | Modeling heterogeneous catalysts with homogeneous catalysts. 2. Modeling catalytic hydrodenitrogenation. Journal of the American Chemical Society, 1982, 104, 1763-1765. | 13.7 | 60 |
| 59 | Continuous-wave ultraviolet laser action in strongly scattering Nd-doped alumina. Optics Letters, 2002, 27, 394. | 3.3 | 60 |
| 60 | Robust Polyaromatic Octasilsesquioxanes from Polybromophenylsilsesquioxanes, BrxOPS, via Suzuki Coupling. Macromolecules, 2005, 38, 4661-4665. | 4.8 | 60 |
| 61 | Transalkylation reaction. Homogeneous catalytic formation of carbon-nitrogen bonds. Journal of the American Chemical Society, 1985, 107, 361-369. | 13.7 | 59 |
| 62 | High-Throughput Screening of Nanoparticle Catalysts Made by Flame Spray Pyrolysis as Hydrocarbon/NO Oxidation Catalysts. Journal of the American Chemical Society, 2009, 131, 9207-9219. | 13.7 | 59 |
| 63 | The Evolutionary Process during Pyrolytic Transformation of Poly(N-methylsilazane) from a Preceramic Polymer into an Amorphous Silicon Nitride/Carbon Composite. Journal of the American Ceramic Society, 1995, 78, 137-145. | 3.8 | 58 |
| 64 | Palladium- and platinum-catalyzed coupling reactions of allyloxy aromatics with hydridosilanes and hydridosiloxanes: Novel liquid crystalline/organosilane materials. Journal of Polymer Science Part A, 1994, 32, 3069-3089. | 2.3 | 56 |
| 65 | Low-pressure, palladium-catalyzed N,N'-diarylurea synthesis from nitro compounds, amines, and carbon monoxide. Journal of Organic Chemistry, 1975, 40, 2819-2822. | 3.2 | 55 |
| 66 | Synthesis and high temperature chemistry of methylsilsesquioxane polymers produced by titanium-catalyzed redistribution of methylhydridooligo- and -polysiloxanes. Chemistry of Materials, 1990, 2, 464-472. | 6.7 | 55 |
| 67 | Neutral Alkoxysilanes from Silica. Journal of the American Chemical Society, 2000, 122, 10063-10072. | 13.7 | 54 |
| 68 | Yttrium Aluminum Garnet Fibers from Metalloorganic Precursors. Journal of the American Ceramic Society, 1998, 81, 629-645. | 3.8 | 53 |
| 69 | The selective dissolution of rice hull ash to form [OSiO1.5]8[R4N]8(R = Me, CH2CH2OH) octasilicates. Basic nanobuilding blocks and possible models of intermediates formed during biosilicification processes. Journal of Materials Chemistry, 2005, 15, 2114. | 6.7 | 53 |
| 70 | Materials that can replace liquid electrolytes in Li batteries: Superionic conductivities in Li1.7Al0.3Ti1.7Si0.4P2.6O12. Processing combustion synthesized nanopowders to free standing thin films. Journal of Power Sources, 2014, 269, 577-588. | 7.8 | 53 |
| 71 | Ab Initio Calculation of the Electronic Absorption of Functionalized Octahedral Silsesquioxanes via Time-Dependent Density Functional Theory with Range-Separated Hybrid Functionals. Journal of Physical Chemistry A, 2012, 116, 1137-1145. | 2.5 | 52 |
| 72 | A low cost, low energy route to solar grade silicon from rice hull ash (RHA), a sustainable source. Green Chemistry, 2015, 17, 3931-3940. | 9.0 | 51 |

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| 73 | Inelastic electron tunneling spectroscopy of carbon monoxide chemisorbed on alumina-supported transition metals. Journal of the American Chemical Society, 1976, 98, 6064-6065. | 13.7 | 50 |
| 74 | Synthesis of Ultrafine Î²â€³â€Alumina Powders via Flame Spray Pyrolysis of Polymeric Precursors. Journal of the American Ceramic Society, 1998, 81, 1477-1486. | 3.8 | 50 |
| 75 | Liquid-Feed Flame Spray Pyrolysis of Nanopowders in the Aluminaâ^'Titania System. Chemistry of Materials, 2004, 16, 2336-2343. | 6.7 | 49 |
| 76 | Synthesis of amino-containing oligophenylsilsesquioxanes. Polymer, 2005, 46, 4514-4524. | 3.8 | 49 |
| 77 | Monoterpene syntheses via a palladium catalyzed isoprene dimerization. Journal of Organic Chemistry, 1976, 41, 3455-3460. | 3.2 | 47 |
| 78 | Tailoring the Global Properties of Nanocomposites. Epoxy Resins with Very Low Coefficients of Thermal Expansion. Macromolecules, 2006, 39, 5167-5169. | 4.8 | 46 |
| 79 | Perfect and nearly perfect silsesquioxane (SQs) nanoconstruction sites and Janus SQs. Journal of Sol-Gel Science and Technology, 2008, 46, 335-347. | 2.4 | 46 |
| 80 | Beads on a Chain (BOC) Polymers Formed from the Reaction of NH<sub>2</sub>PhSiO<sub>1.5</sub>]<sub>x</sub>[PhSiO<sub>1.5</sub>]<sub>10â€“x</sub> and [NH<sub>2</sub>PhSiO<sub>1.5</sub>]<sub>x</sub>[PhSiO<sub>1.5</sub>]<sub>12â€“x</sub> Mixtures (x = 2â€“4) with the Diglycidyl Ether of Bisphenol A. Macromolecules, 2011, 44, 7263-7272. | 4.8 | 44 |
| 81 | 3-D Molecular Mixtures of Catalytically Functionalized [vinylSiO<sub>1.5</sub>]<sub>10</sub>/[vinylSiO<sub>1.5</sub>]<sub>12</sub>. Photophysical Characterization of Second Generation Derivatives. Chemistry of Materials, 2012, 24, 1883-1895. | 6.7 | 43 |
| 82 | Applications of the water-gas shift reaction. 2. Catalytic exchange of deuterium for hydrogen at saturated carbon. Journal of the American Chemical Society, 1978, 100, 6527-6528. | 13.7 | 42 |
| 83 | Synthesis, functionalization and properties of incompletely condensed â€œhalf cubeâ€•silsesquioxanes as a potential route to nanoscale Janus particles. Comptes Rendus Chimie, 2010, 13, 270-281. | 0.5 | 42 |
| 84 | Homogeneous catalytic formation of carbon-nitrogen bonds. 2. Catalytic activation of the silicon-nitrogen bond. Journal of Organic Chemistry, 1983, 48, 2539-2543. | 3.2 | 41 |
| 85 | Synthesis of a Double Alkoxide Precursor to Spinel (MgAl2O4) Directly from Al(OH)3, MgO, and Triethanolamine and Its Pyrolytic Transformation to Spinel. Chemistry of Materials, 1996, 8, 2850-2857. | 6.7 | 41 |
| 86 | Cobalt(III) complex catalyzed hydrolysis of phosphorus esters. Inorganic Chemistry, 1984, 23, 1870-1876. | 4.0 | 40 |
| 87 | Finding Spinel in All the Wrong Places. Advanced Materials, 2008, 20, 1373-1375. | 21.0 | 40 |
| 88 | D <sub>5h</sub> [PhSiO<sub>1.5</sub>]<sub>10</sub> synthesis via F<sup>â^'</sup> catalyzed rearrangement of [PhSiO<sub>1.5</sub>]<sub>n</sub>. An experimental/computational analysis of likely reaction pathways. Dalton Transactions, 2016, 45, 1025-1039. | 3.3 | 40 |
| 89 | Ba[Si(OCH2CH2O)3], a Hexaalkoxysilicate Synthesized from SiO2. Angewandte Chemie International Edition in English, 1993, 32, 287-289. | 4.4 | 39 |
| 90 | Avoiding Carbothermal Reduction: Distillation of Alkoxysilanes from Biogenic, Green, and Sustainable Sources. Angewandte Chemie - International Edition, 2016, 55, 1065-1069. | 13.8 | 39 |

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| 91 | Superionically conducting Î²â€²â€²-Al<sub>2</sub>O<sub>3</sub> thin films processed using flame synthesized nanopowders. Journal of Materials Chemistry A, 2018, 6, 12411-12419. | 10.3 | 39 |
| 92 | One-Step Synthesis of Coreâ^'Shell (Ce<sub>0.7</sub>Zr<sub>0.3</sub>O<sub>2</sub>)<sub>x</sub>(Al<sub>2</sub>O<sub>3</sub>)<sub>1â^'x</sub> Nanopowders via Liquid-Feed Flame Spray Pyrolysis (LF-FSP). Journal of the American Chemical Society, 2009, 131, 9220-9229. | 13.7 | 38 |
| 93 | Synthesis of Metastable Phases in the Magnesium Spinelâ^'Alumina System. Chemistry of Materials, 2008, 20, 553-558. | 6.7 | 37 |
| 94 | Cubic Silsesquioxanes as a Green, Highâ€Performance Mold Material for Nanoimprint Lithography. Advanced Materials, 2011, 23, 414-420. | 21.0 | 37 |
| 95 | Beads on a Chain (BoC) Phenylsilsesquioxane (SQ) Polymers via F<sup>â€“</sup> Catalyzed Rearrangements and ADMET or Reverse Heck Cross-coupling Reactions: Through Chain, Extended Conjugation in 3-D with Potential for Dendronization. Macromolecules, 2013, 46, 7591-7604. | 4.8 | 37 |
| 96 | Catalytic reactions of pyridine with carbon monoxide and water. Reduction of carbon monoxide to hydrocarbon. Applications of the water-gas shift reaction. Journal of Organic Chemistry, 1979, 44, 4964-4966. | 3.2 | 36 |
| 97 | Synthesis of Î±,Ï‰-bis(diphenylphosphino)alkane and Î±,Ï‰-bis(diphenylphosphino)(poly)ether ligands and complexes of rhodium(I). Inorganica Chimica Acta, 1985, 97, 143-150. | 2.4 | 36 |
| 98 | Transannular interactions of the silyl center with distant keto groups in the mass spectra of medium-sized organosilicon heterocycles. Improved synthetic routes to six-, seven-, and eight-membered silicon ring systems. Journal of Organic Chemistry, 1971, 36, 4060-4068. | 3.2 | 34 |
| 99 | Catalytic synthesis of oligosilazanes part 2. Journal of Molecular Catalysis, 1988, 48, 183-197. | 1.2 | 34 |
| 100 | A Processable Mullite Precursor Prepared by Reacting Silica and Aluminum Hydroxide with Triethanolamine in Ethylene Glycol: Structural Evolution on Pyrolysis. Journal of the American Ceramic Society, 1997, 80, 2597-2606. | 3.8 | 33 |
| 101 | Systematic synthesis of mixed-metal oxides in NiOâ€“Co3O4, NiOâ€“MoO3, and NiOâ€“CuO systems via liquid-feed flame spray pyrolysis. Journal of Materials Chemistry, 2008, 18, 3249. | 6.7 | 33 |
| 102 | Facile Approach to Recycling Highly Cross-Linked Thermoset Silicone Resins under Ambient Conditions. ACS Omega, 2019, 4, 3782-3789. | 3.5 | 32 |
| 103 | Coreâ^'shell Nanostructured Nanopowders along (CeO<sub>x</sub>)<sub>x</sub>(Al<sub>2</sub>O<sub>3</sub>)<sub>1â^'x</sub>Tie-Line by Liquid-Feed Flame Spray Pyrolysis (LF-FSP). Chemistry of Materials, 2008, 20, 5154-5162. | 6.7 | 31 |
| 104 | Using CoS cathode materials with 3D hierarchical porosity and an ionic liquid (IL) as an electrolyte additive for high capacity rechargeable magnesium batteries. Journal of Materials Chemistry A, 2019, 7, 18880-18888. | 10.3 | 31 |
| 105 | Î±-Silicon carbide/Î²-silicon carbide particulate composites via polymer infiltration and pyrolysis (PIP) processing using polymethylsilane. Journal of the European Ceramic Society, 2000, 20, 441-451. | 5.7 | 30 |
| 106 | Preparation of highly functionalized 3,4-disubstituted cyclobutene-1,2-diones using functionalized zinc-copper organometallics. Tetrahedron Letters, 1992, 33, 7515-7518. | 1.4 | 29 |
| 107 | Pentacoordinate Silicon Complexes as Precursors to Silicate Glasses and Ceramics. Journal of the American Ceramic Society, 1994, 77, 875-882. | 3.8 | 29 |
| 108 | Processable aluminosilicate alkoxide precursors from metal oxides and hydroxides. The oxide one-pot synthesis process. Journal of Materials Chemistry, 1996, 6, 1441. | 6.7 | 29 |

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| 109 | Synthesis, characterization and photophysical properties of polyfunctional phenylsilsesquioxanes: [o-RPhSiO1.5]8, [2,5-R2PhSiO1.5]8, and [R3PhSiO1.5]8. compounds with the highest number of functional units/unit volume. Journal of Materials Chemistry, 2011, 21, 11177. | 6.7 | 29 |
| 110 | Ce-Substituted Nanograin Na<sub>3</sub>Zr<sub>2</sub>Si<sub>2</sub>PO<sub>12</sub> Prepared by LF-FSP as Sodium-Ion Conductors. ACS Applied Materials & Interfaces, 2020, 12, 3502-3509. | 8.0 | 29 |
| 111 | Octaalkynylsilsesquioxanes, Nano Sea Urchin Molecular Building Blocks for 3-D-Nanostructures. Macromolecules, 2008, 41, 8047-8052. | 4.8 | 28 |
| 112 | Fluoride catalyzed rearrangements of polysilsesquioxanes, mixed Me, vinyl T<sub>8</sub>, Me, vinyl T<sub>10</sub> and T<sub>12</sub> cages. Applied Organometallic Chemistry, 2010, 24, 551-557. | 3.5 | 28 |
| 113 | New Aminophenylsilsesquioxanesâ€"Synthesis, Properties, and Epoxy Nanocomposites. Australian Journal of Chemistry, 2006, 59, 564. | 0.9 | 26 |
| 114 | Reactions of (Ï€-C5H5)W(CO)3H with dimethylacetylenedicarboxylate. Formation of dinuclear and metal hydride insertion products. Journal of Organometallic Chemistry, 1977, 124, 29-35. | 1.8 | 25 |
| 115 | Titanium Nitride/Carbon Coatings on Graphite Fibers. Journal of the American Ceramic Society, 1997, 80, 705-716. | 3.8 | 25 |
| 116 | Completely discontinuous organic/ inorganic hybrid nanocomposites by self-curing of nanobuilding blocks constructed from reactions of [HMe2SiOSiO1.5]8 with vinylcyclohexene. Polymer International, 2007, 56, 1378-1391. | 3.1 | 25 |
| 117 | Conjugated Copolymers That Shouldn't Be. Angewandte Chemie - International Edition, 2021, 60, 11115-11119. | 13.8 | 25 |
| 118 | Modeling heterogeneous catalysts with homogeneous catalysts. Comparison of catalytic exchange of deuterium for hydrogen at the .alpha. and .beta. positions of tertiary amines by using either palladium black or dodecacarbonyltriruthenium. Journal of the American Chemical Society, 1981, 103, 2461-2463. | 13.7 | 24 |
| 119 | Ring-Opening Polymerization of Epoxy End-Terminated Polyethylene Oxide (PEO) as a Route to Cross-Linked Materials with Exceptional Swelling Behavior. Macromolecules, 2004, 37, 4525-4532. | 4.8 | 24 |
| 120 | Durable and Hydrophobic Organicâ€"Inorganic Hybrid Coatings via Fluoride Rearrangement of Phenyl T<sub>12</sub> Silsesquioxane and Siloxanes. ACS Applied Materials & Interfaces, 2017, 9, 8378-8383. | 8.0 | 23 |
| 121 | FURTHER STUDIES ON HYDROFORMYLATION AND HYDROHYDROXYMETHYLATION WITH CO AND H2O. APPLICATIONS OF THE WATER-GAS SHIFT REACTION. 3. Annals of the New York Academy of Sciences, 1980, 333, 124-140. | 3.8 | 22 |
| 122 | Synthesis of Oxynitride Powders via Fluidized-Bed Ammonolysis, Part I: Large, Porous, Silica Particles. Journal of the American Ceramic Society, 1996, 79, 2865-2877. | 3.8 | 22 |
| 123 | Processing Aluminum Nitrideâ€"Silicon Carbide Composites via Polymer Infiltration and Pyrolysis of Polymethylsilane, a Precursor to Stoichiometric Silicon Carbide. Journal of the American Ceramic Society, 1999, 82, 857-866. | 3.8 | 22 |
| 124 | Formation and structure of tris(alumatranyloxy-i-propyl)amine directly from Al(OH)3 and triisopropanolamine. European Polymer Journal, 2001, 37, 1877-1885. | 5.4 | 22 |
| 125 | Surface modification of titania powder P25 with phosphate and phosphonic acids â€" Effect on thermal stability and photocatalytic activity. Journal of Colloid and Interface Science, 2013, 393, 335-339. | 9.4 | 22 |
| 126 | Beads on a Chain (BoC) Polymers with Model Dendronized Beads. Copolymerization of [(4-NH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>SiO<sub>1.5</sub>)<sub>6</sub>(IPhSiO<sub>1.5</sub>)<sub>2</sub>] and [(4-CH<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>SiO<sub>1.5</sub>)<sub>6</sub>(IPhSiO<sub>1.5</sub>)<sub>2</sub>] with 1,4-Diethynylbenzene (DEB) Gives Through-Chain, Extended 3-D Conjugation in the Excited State That Is an Average of the Corresponding Homopolymers. Macromolecules, 2013, 46, 7580-7590. | 4.8 | 22 |

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