## C Jeffrey Brinker

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5815587/publications.pdf

Version: 2024-02-01

205 papers 24,147 citations

76 h-index 152 g-index

215 all docs

215 docs citations

215 times ranked

25248 citing authors

| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Robust and Long-Term Cellular Protein and Enzymatic Activity Preservation in Biomineralized Mammalian Cells. ACS Nano, 2022, 16, 2164-2175.   | 14.6 | 13        |
| 2  | Microneedle Patches Integrated with Biomineralized Melanin Nanoparticles for Simultaneous Skin Tumor Photothermal Therapy and Wound Healing. Advanced Functional Materials, 2022, 32, .                   | 14.9 | 63        |
| 3  | Tanks and Truth. ACS Nano, 2022, 16, 4975-4976.   | 14.6 | O         |
| 4  | Modular Assembly of Red Blood Cell Superstructures from Metal–Organic Framework Nanoparticleâ€Based Building Blocks. Advanced Functional Materials, 2021, 31, 2005935.                                    | 14.9 | 28        |
| 5  | Synthesis of Polyhedral Metal–Organic Framework@Mesoporous Silica Hybrid Nanocomposites with Branched Shapes. ACS Applied Bio Materials, 2021, 4, 1221-1228.  | 4.6  | 4         |
| 6  | Bioinspired Cell Silicification: From Extracellular to Intracellular. Journal of the American Chemical Society, 2021, 143, 6305-6322.   | 13.7 | 32        |
| 7  | Advanced Nanomaterials-Assisted Cell Cryopreservation: A Mini Review. ACS Applied Bio Materials, 2021, 4, 2996-3014.  | 4.6  | 16        |
| 8  | Uptake and Toxicity of Respirable Carbon-Rich Uranium-Bearing Particles: Insights into the Role of Particulates in Uranium Toxicity. Environmental Science & Environmental Science & 2021, 55, 9949-9957. | 10.0 | 10        |
| 9  | The impact of metal doping on fumed silica structure and amino acid thermal condensation catalytic properties. Journal of Materials Science, 2021, 56, 16916-16927.                                       | 3.7  | 1         |
| 10 | Emerging Lipid-Coated Silica Nanoparticles for Cancer Therapy. Nanotechnology in the Life Sciences, 2021, , 335-361.  | 0.6  | 4         |
| 11 | Aggregation morphology of planar engineered nanomaterials. Journal of Colloid and Interface Science, 2020, 561, 849-853.  | 9.4  | 7         |
| 12 | Direct Transfer of Mesoporous Silica Nanoparticles between Macrophages and Cancer Cells. Cancers, 2020, 12, 2892.   | 3.7  | 19        |
| 13 | Are nearly free silanols a unifying structural determinant of silica particle toxicity?. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30006-30008.         | 7.1  | 9         |
| 14 | Engineering of monosized lipid-coated mesoporous silica nanoparticles for CRISPR delivery. Acta Biomaterialia, 2020, 114, 358-368.  | 8.3  | 62        |
| 15 | Synthetic amorphous silica nanoparticles: toxicity, biomedical and environmental implications. Nature Reviews Materials, 2020, 5, 886-909.  | 48.7 | 212       |
| 16 | Biomimetic Rebuilding of Multifunctional Red Blood Cells: Modular Design Using Functional Components. ACS Nano, 2020, 14, 7847-7859.  | 14.6 | 67        |
| 17 | A mathematical model to predict nanomedicine pharmacokinetics and tumor delivery. Computational and Structural Biotechnology Journal, 2020, 18, 518-531.  | 4.1  | 61        |
| 18 | Sol–Gelâ€Based Advanced Porous Silica Materials for Biomedical Applications. Advanced Functional Materials, 2020, 30, 1909539.  | 14.9 | 125       |

| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 19 | Imageâ€guided mathematical modeling for pharmacological evaluation of nanomaterials and<br>monoclonal antibodies. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2020,<br>12, e1628.                         | 6.1  | 24        |
| 20 | Growing Contributions of Nano in 2020. ACS Nano, 2020, 14, 16163-16164.  | 14.6 | 1         |
| 21 | Effects of Surface Chemistry and Topology on the Kinesin-Driven Motility of Microtubule Shuttles.<br>ACS Applied Bio Materials, 2020, 3, 7908-7918.  | 4.6  | 1         |
| 22 | Engineering of large-pore lipid-coated mesoporous silica nanoparticles for dual cargo delivery to cancer cells. Journal of Sol-Gel Science and Technology, 2019, 89, 78-90.  | 2.4  | 7         |
| 23 | On the issue of transparency and reproducibility in nanomedicine. Nature Nanotechnology, 2019, 14, 629-635.  | 31.5 | 149       |
| 24 | Nano as a Rosetta Stone: The Global Roles and Opportunities for Nanoscience and Nanotechnology. ACS Nano, 2019, 13, 10853-10855.   | 14.6 | 16        |
| 25 | Modular Metal–Organic Polyhedra Superassembly: From Molecular‣evel Design to Targeted Drug<br>Delivery. Advanced Materials, 2019, 31, e1806774.  | 21.0 | 48        |
| 26 | Conversion of Metal–Organic Cage to Ligand-Free Ultrasmall Noble Metal Nanocluster Catalysts<br>Confined within Mesoporous Silica Nanoparticle Supports. Nano Letters, 2019, 19, 1512-1519.  | 9.1  | 36        |
| 27 | Metal–Organic Framework Nanoparticle-Assisted Cryopreservation of Red Blood Cells. Journal of the American Chemical Society, 2019, 141, 7789-7796.   | 13.7 | 82        |
| 28 | SupraCells: Living Mammalian Cells Protected within Functional Modular Nanoparticleâ€Based Exoskeletons. Advanced Materials, 2019, 31, e1900545.   | 21.0 | 96        |
| 29 | Mathematical modeling in cancer nanomedicine: a review. Biomedical Microdevices, 2019, 21, 40.   | 2.8  | 122       |
| 30 | Predicting breast cancer response to neoadjuvant chemotherapy based on tumor vascular features in needle biopsies. JCI Insight, 2019, 4, .   | 5.0  | 17        |
| 31 | Versatile Surface Functionalization of Metal–Organic Frameworks through Direct Metal<br>Coordination with a Phenolic Lipid Enables Diverse Applications. Advanced Functional Materials, 2018,<br>28, 1705274.                      | 14.9 | 90        |
| 32 | Ultra-thin enzymatic liquid membrane for CO2 separation and capture. Nature Communications, 2018, 9,990.   | 12.8 | 62        |
| 33 | Pendant/bridged/mesoporous silsesquioxane nanoparticles: Versatile and biocompatible platforms for smart delivery of therapeutics. Chemical Engineering Journal, 2018, 340, 125-147.   | 12.7 | 32        |
| 34 | Uptake and intracellular fate of cholera toxin subunit b-modified mesoporous silica nanoparticle-supported lipid bilayers (aka protocells) in motoneurons. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 661-672. | 3.3  | 15        |
| 35 | Multifunctional Protocells for Enhanced Penetration in 3D Extracellular Tumoral Matrices. Chemistry of Materials, 2018, 30, 112-120.   | 6.7  | 50        |
| 36 | Establishing the effects of mesoporous silica nanoparticle properties on in vivo disposition using imaging-based pharmacokinetics. Nature Communications, 2018, 9, 4551.   | 12.8 | 189       |

| #  | Article  | IF   | Citations |
|----|--|------|-----------|
| 37 | Biodegradable Silica-Based Nanoparticles: Dissolution Kinetics and Selective Bond Cleavage. The Enzymes, 2018, 43, 181-214.  | 1.7  | 25        |
| 38 | Understanding the Connection between Nanoparticle Uptake and Cancer Treatment Efficacy using Mathematical Modeling. Scientific Reports, 2018, 8, 7538.   | 3.3  | 49        |
| 39 | Molecular Dynamics Simulations of the Silica–Cell Membrane Interaction: Insights on Biomineralization and Nanotoxicity. Journal of Physical Chemistry C, 2018, 122, 21330-21343.                               | 3.1  | 23        |
| 40 | Controlled Fabrication of Functional Capsules Based on the Synergistic Interaction between Polyphenols and MOFs under Weak Basic Condition. ACS Applied Materials & Samp; Interfaces, 2017, 9, 14258-14264.    | 8.0  | 37        |
| 41 | Bio-inspired Murray materials for mass transfer and activity. Nature Communications, 2017, 8, 14921.   | 12.8 | 176       |
| 42 | Three-Dimensional Encapsulation of <i>Saccharomyces cerevisiae</i> in Silicate Matrices Creates Distinct Metabolic States as Revealed by Gene Chip Analysis. ACS Nano, 2017, 11, 3560-3575.                    | 14.6 | 17        |
| 43 | A novel approach for targeted delivery to motoneurons using cholera toxin-B modified protocells. Journal of Neuroscience Methods, 2016, 273, 160-174.  | 2.5  | 26        |
| 44 | Repetitive Dosing of Fumed Silica Leads to Profibrogenic Effects through Unique Structure–Activity Relationships and Biopersistence in the Lung. ACS Nano, 2016, 10, 8054-8066.                                | 14.6 | 58        |
| 45 | Mesoporous Silica Nanoparticle-Supported Lipid Bilayers (Protocells) for Active Targeting and Delivery to Individual Leukemia Cells. ACS Nano, 2016, 10, 8325-8345.  | 14.6 | 180       |
| 46 | Protocells: Modular Mesoporous Silica Nanoparticleâ€Supported Lipid Bilayers for Drug Delivery. Small, 2016, 12, 2173-2185.  | 10.0 | 150       |
| 47 | Ligand-targeted theranostic nanomedicines against cancer. Journal of Controlled Release, 2016, 240, 267-286.   | 9.9  | 154       |
| 48 | Integrated nanotechnology platform for tumor-targeted multimodal imaging and therapeutic cargo release. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1877-1882. | 7.1  | 55        |
| 49 | Laser Machined Plastic Laminates: Towards Portable Diagnostic Devices for Use in Low Resource Environments. Electroanalysis, 2015, 27, 2503-2512.  | 2.9  | 1         |
| 50 | Silica bioreplication preserves three-dimensional spheroid structures of human pluripotent stem cells and HepG2 cells. Scientific Reports, 2015, 5, 13635.   | 3.3  | 25        |
| 51 | Influence of Silica Matrix Composition and Functional Component Additives on the Bioactivity and Viability of Encapsulated Living Cells. ACS Biomaterials Science and Engineering, 2015, 1, 1231-1238.         | 5.2  | 13        |
| 52 | Ligandâ€Directed Profiling of Organelles with Internalizing Phage Libraries. Current Protocols in Protein Science, 2015, 79, 30.4.1-30.4.30.   | 2.8  | 2         |
| 53 | Controlling the Metal to Semiconductor Transition of MoS <sub>2</sub> and WS <sub>2</sub> in Solution. Journal of the American Chemical Society, 2015, 137, 1742-1745.   | 13.7 | 155       |
| 54 | Nanoporous Silica-Based Protocells at Multiple Scales for Designs of Life and Nanomedicine. Life, 2015, 5, 214-229.  | 2.4  | 16        |

| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 55 | Spray-Dried Multiscale Nano-biocomposites Containing Living Cells. ACS Nano, 2015, 9, 6961-6977.   | 14.6 | 24        |
| 56 | Reduction of Acute Inflammatory Effects of Fumed Silica Nanoparticles in the Lung by Adjusting Silanol Display through Calcination and Metal Doping. ACS Nano, 2015, 9, 9357-9372.   | 14.6 | 108       |
| 57 | Where Are We Heading in Nanotechnology Environmental Health and Safety and Materials Characterization?. ACS Nano, 2015, 9, 5627-5630.  | 14.6 | 91        |
| 58 | Enlarged Pore Size in Mesoporous Silica Films Templated by Pluronic F127: Use of Poloxamer Mixtures and Increased Template/SiO <sub>2</sub> Ratios in Materials Synthesized by Evaporation-Induced Self-Assembly. Chemistry of Materials, 2015, 27, 75-84. | 6.7  | 50        |
| 59 | Synthetic fossilization of soft biological tissues and their shape-preserving transformation into silica or electron-conductive replicas. Nature Communications, 2014, 5, 5665.  | 12.8 | 27        |
| 60 | Surface Interactions with Compartmentalized Cellular Phosphates Explain Rare Earth Oxide Nanoparticle Hazard and Provide Opportunities for Safer Design. ACS Nano, 2014, 8, 1771-1783.   | 14.6 | 212       |
| 61 | Porous Ice Phases with VI and Distorted VII Structures Constrained in Nanoporous Silica. Nano<br>Letters, 2014, 14, 6554-6558.   | 9.1  | 11        |
| 62 | Atomic Layer Deposition of <scp>l</scp> -Alanine Polypeptide. Journal of the American Chemical Society, 2014, 136, 15821-15824.  | 13.7 | 7         |
| 63 | Re-examining the Size/Charge Paradigm: Differing in Vivo Characteristics of Size- and Charge-Matched Mesoporous Silica Nanoparticles. Journal of the American Chemical Society, 2013, 135, 16030-16033.  | 13.7 | 77        |
| 64 | Two-Wave Nanotherapy To Target the Stroma and Optimize Gemcitabine Delivery To a Human Pancreatic Cancer Model in Mice. ACS Nano, 2013, 7, 10048-10065.  | 14.6 | 163       |
| 65 | Quartz on Silicon. Science, 2013, 340, 818-819.  | 12.6 | 10        |
| 66 | Lithographically Defined Macroscale Modulation of Lateral Fluidity and Phase Separation Realized via Patterned Nanoporous Silica-Supported Phospholipid Bilayers. Journal of the American Chemical Society, 2013, 135, 15718-15721.                        | 13.7 | 10        |
| 67 | Mesoporous silica-supported lipid bilayers (protocells) for DNA cargo delivery to the spinal cord.<br>Journal of Controlled Release, 2013, 168, 209-224.   | 9.9  | 86        |
| 68 | Mechanistic Modeling Identifies Drug-Uptake History as Predictor of Tumor Drug Resistance and Nano-Carrier-Mediated Response. ACS Nano, 2013, 7, 11174-11182.  | 14.6 | 63        |
| 69 | Revealing the Interfacial Self-Assembly Pathway of Large-Scale, Highly-Ordered, Nanoparticle/Polymer<br>Monolayer Arrays at an Air/Water Interface. Nano Letters, 2013, 13, 1041-1046.   | 9.1  | 22        |
| 70 | Chemically Exfoliated MoS <sub>2</sub> as Nearâ€Infrared Photothermal Agents. Angewandte Chemie - International Edition, 2013, 52, 4160-4164.  | 13.8 | 575       |
| 71 | Mesoporous Silica Nanoparticle Nanocarriers: Biofunctionality and Biocompatibility. Accounts of Chemical Research, 2013, 46, 792-801.  | 15.6 | 801       |
| 72 | Dip Coating. , 2013, , 233-261.  |      | 55        |

| #  | Article  | IF   | Citations |
|----|--|------|-----------|
| 73 | Cellular complexity captured in durable silica biocomposites. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17336-17341.   | 7.1  | 78        |
| 74 | Aerosol-assisted synthesis of monodisperse single-crystalline $\hat{l}_{\pm}$ -cristobalite nanospheres. Chemical Communications, 2012, 48, 1293-1295.   | 4.1  | 21        |
| 75 | Multiphoton Lithography of Nanocrystalline Platinum and Palladium for Site-Specific Catalysis in 3D Microenvironments. Journal of the American Chemical Society, 2012, 134, 4007-4010.   | 13.7 | 54        |
| 76 | Combo combat. Nature Materials, 2012, 11, 831-832.   | 27.5 | 14        |
| 77 | Processing Pathway Dependence of Amorphous Silica Nanoparticle Toxicity: Colloidal vs Pyrolytic.<br>Journal of the American Chemical Society, 2012, 134, 15790-15804.  | 13.7 | 372       |
| 78 | Biocompatible Microfabrication of 3D Isolation Chambers for Targeted Confinement of Individual Cells and Their Progeny. Analytical Chemistry, 2012, 84, 8985-8989.   | 6.5  | 26        |
| 79 | Orthogonal Cellâ€Based Biosensing: Fluorescent, Electrochemical, and Colorimetric Detection with Silicaâ€Immobilized Cellular Communities Integrated with an ITO–Glass/Plastic Laminate Cartridge. Small, 2012, 8, 2743-2751.                                  | 10.0 | 16        |
| 80 | Delivery of Ricin Toxin Aâ€Chain by Peptideâ€Targeted Mesoporous Silica Nanoparticleâ€Supported Lipid Bilayers. Advanced Healthcare Materials, 2012, 1, 348-353.   | 7.6  | 42        |
| 81 | Delivery of Small Interfering RNA by Peptide-Targeted Mesoporous Silica Nanoparticle-Supported Lipid<br>Bilayers. ACS Nano, 2012, 6, 2174-2188.  | 14.6 | 212       |
| 82 | Minimum thermal conductivity considerations in aerogel thin films. Journal of Applied Physics, 2012, $111$ , .   | 2.5  | 46        |
| 83 | Hydrothermal synthesis of monodisperse single-crystalline alpha-quartz nanospheres. Chemical Communications, 2011, 47, 7524.   | 4.1  | 28        |
| 84 | X-Ray characterization of self-assembled long-chain phosphatidylcholine/bile salt/silica mesostructured films with nanoscale homogeneity. Chemical Communications, 2011, 47, 1806-1808.  | 4.1  | 3         |
| 85 | Transformation of a Close-Packed Au Nanoparticle/Polymer Monolayer into a Large Area Array of Oriented Au Nanowires via E-beam Promoted Uniaxial Deformation and Room Temperature Sintering. Journal of the American Chemical Society, 2011, 133, 11410-11413. | 13.7 | 10        |
| 86 | Tricontinuous Cubic Nanostructure and Pore Size Patterning in Mesostructured Silica Films Templated with Glycerol Monooleate. Chemistry of Materials, 2011, 23, 2107-2112.   | 6.7  | 9         |
| 87 | Protein-Directed Assembly of Arbitrary Three-Dimensional Nanoporous Silica Architectures. ACS Nano, 2011, 5, 1401-1409.  | 14.6 | 48        |
| 88 | Cell-Specific Delivery of Diverse Cargos by Bacteriophage MS2 Virus-like Particles. ACS Nano, 2011, 5, 5729-5745.  | 14.6 | 286       |
| 89 | Encapsulation of <i>S. cerevisiae</i> in Poly(glycerol) Silicate Derived Matrices: Effect of Matrix Additives and Cell Metabolic Phase on Long-Term Viability and Rate of Gene Expression. Chemistry of Materials, 2011, 23, 2555-2564.                        | 6.7  | 35        |
| 90 | Cell-directed-assembly: Directing the formation of nano/bio interfaces and architectures with living cells. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 259-267.   | 2.4  | 30        |

| #   | Article  | IF   | Citations |
|-----|--|------|-----------|
| 91  | The targeted delivery of multicomponent cargos to cancer cells by nanoporous particle-supported lipid bilayers. Nature Materials, 2011, 10, 389-397.   | 27.5 | 933       |
| 92  | Convective Assembly of 2D Lattices of Virusâ€like Particles Visualized by Inâ€Situ Grazingâ€Incidence Smallâ€Angle Xâ€Ray Scattering. Small, 2011, 7, 1043-1050.   | 10.0 | 15        |
| 93  | Photoresponsive Release from Azobenzene-Modified Single Cubic Crystal NaCl/Silica Particles. Journal of Nanomaterials, 2011, 2011, 1-6.  | 2.7  | 1         |
| 94  | Integration of a Closeâ€Packed Quantum Dot Monolayer with a Photonicâ€Crystal Cavity Via Interfacial Selfâ€Assembly and Transfer. Small, 2010, 6, 2126-2129.   | 10.0 | 13        |
| 95  | Confinement-induced quorum sensing of individual Staphylococcus aureus bacteria. Nature Chemical Biology, 2010, 6, 41-45.  | 8.0  | 189       |
| 96  | DNA translocation through an array of kinkedÂnanopores. Nature Materials, 2010, 9, 667-675.  | 27.5 | 109       |
| 97  | An inorganic–organic proton exchange membrane for fuel cells with a controlled nanoscale pore structure. Nature Nanotechnology, 2010, 5, 230-236.  | 31.5 | 145       |
| 98  | Cell-Directed Integration into Three-Dimensional Lipidâ^'Silica Nanostructured Matrices. ACS Nano, 2010, 4, 5539-5550.   | 14.6 | 33        |
| 99  | Numerical Simulation of Ethanolâ^'Waterâ^'NaCl Droplet Evaporation. Industrial & Droplet Evaporation. Indust | 3.7  | 20        |
| 100 | Salt-induced lipid transfer between colloidal supported lipid bilayers. Soft Matter, 2010, 6, 2628.  | 2.7  | 8         |
| 101 | Mechanically tunable multiphoton fabricated protein hydrogels investigated using atomic force microscopy. Soft Matter, 2010, 6, 2842.  | 2.7  | 40        |
| 102 | Tubular ceramic-supported sol–gel silica-based membranes for flue gas carbon dioxide capture and sequestration. Journal of Membrane Science, 2009, 341, 30-36.   | 8.2  | 70        |
| 103 | Characterization of Lipid-Templated Silica and Hybrid Thin Film Mesophases by Grazing Incidence Small-Angle X-ray Scattering. Langmuir, 2009, 25, 9500-9509.   | 3.5  | 20        |
| 104 | Cell-Directed Localization and Orientation of a Functional Foreign Transmembrane Protein within a Silica Nanostructure. Journal of the American Chemical Society, 2009, 131, 14255-14257.  | 13.7 | 17        |
| 105 | Measurements and simulations of the near-surface composition of evaporating ethanol–water droplets. Physical Chemistry Chemical Physics, 2009, 11, 7780.   | 2.8  | 13        |
| 106 | Electrostatically Mediated Liposome Fusion and Lipid Exchange with a Nanoparticle-Supported Bilayer for Control of Surface Charge, Drug Containment, and Delivery. Journal of the American Chemical Society, 2009, 131, 7567-7569.   | 13.7 | 250       |
| 107 | Porous Nanoparticle Supported Lipid Bilayers (Protocells) as Delivery Vehicles. Journal of the American Chemical Society, 2009, 131, 1354-1355.  | 13.7 | 323       |
| 108 | InÂsitu fluorescence probing of the chemical and structural changes during formation of hexagonal phase cetyltrimethylammonium bromide and lamellar phase CTAB/Poly(dodecylmethacrylate) sol–gel silica thin films. Journal of Sol-Gel Science and Technology, 2008, 47, 300-310.  | 2.4  | 10        |

| #   | Article  | IF   | Citations |
|-----|--|------|-----------|
| 109 | Directed Aerosol Writing of Ordered Silica Nanostructures on Arbitrary Surfaces with Selfâ€Assembling Inks. Small, 2008, 4, 982-989.   | 10.0 | 31        |
| 110 | Free-Standing, Patternable Nanoparticle/Polymer Monolayer Arrays Formed by Evaporation Induced Self-Assembly at a Fluid Interface. Journal of the American Chemical Society, 2008, 130, 3284-3285.       | 13.7 | 61        |
| 111 | Corrosion inhibition using superhydrophobic films. Corrosion Science, 2008, 50, 897-902.   | 6.6  | 159       |
| 112 | Dynamic Investigation of Gold Nanocrystal Assembly Using In Situ Grazing-Incidence Small-Angle X-ray Scattering. Langmuir, 2008, 24, 10575-10578.  | 3.5  | 34        |
| 113 | A Molecular Basis for Advanced Materials in Water Treatment. MRS Bulletin, 2008, 33, 42-47.  | 3.5  | 20        |
| 114 | Sub-10 nm Thick Microporous Membranes Made by Plasma-Defined Atomic Layer Deposition of a Bridged Silsesquioxane Precursor. Journal of the American Chemical Society, 2007, 129, 15446-15447.            | 13.7 | 47        |
| 115 | Cell-Directed Assembly of Bio/Nano Interfaces—A New Scheme for Cell Immobilization. Accounts of Chemical Research, 2007, 40, 836-845.  | 15.6 | 65        |
| 116 | Optical Detection of Ion-Channel-Induced Proton Transport in Supported Phospholipid Bilayers. Nano Letters, 2007, 7, 2446-2451.  | 9.1  | 23        |
| 117 | Large-conductance cholesterol–amphotericin B channels in reconstituted lipid bilayers. Biosensors and Bioelectronics, 2007, 22, 1359-1367.   | 10.1 | 11        |
| 118 | Amphotericin B channels in phospholipid membrane-coated nanoporous silicon surfaces: Implications for photovoltaic driving of ions across membranes. Biosensors and Bioelectronics, 2007, 22, 1605-1611. | 10.1 | 8         |
| 119 | Modulus–density scaling behaviour and framework architecture of nanoporous self-assembled silicas. Nature Materials, 2007, 6, 418-423.   | 27.5 | 159       |
| 120 | Aerosol-Assisted Self-Assembly of Single-Crystal Core/Nanoporous Shell Particles as Model Controlled Release Capsules. Journal of the American Chemical Society, 2006, 128, 4512-4513.                   | 13.7 | 115       |
| 121 | Solution Synthesis of Germanium Nanowires Using a Ge2+Alkoxide Precursor. Journal of the American Chemical Society, 2006, 128, 5244-5250.  | 13.7 | 96        |
| 122 | Thermochromatism and Structural Evolution of Metastable Polydiacetylenic Crystals. Journal of Physical Chemistry B, 2006, 110, 7221-7225.  | 2.6  | 72        |
| 123 | Nanometer-Thick Conformal Pore Sealing of Self-Assembled Mesoporous Silica by Plasma-Assisted Atomic Layer Deposition. Journal of the American Chemical Society, 2006, 128, 11018-11019.                 | 13.7 | 55        |
| 124 | Nanoporous Carbon Nanotubes Synthesized through Confined Hydrogen-Bonding Self-Assembly. Journal of the American Chemical Society, 2006, 128, 9276-9277.   | 13.7 | 62        |
| 125 | Cell-Directed Assembly of Lipid-Silica Nanostructures Providing Extended Cell Viability. Science, 2006, 313, 337-341.  | 12.6 | 147       |
| 126 | Hierarchically Organized Nanoparticle Mesostructure Arrays Formed through Hydrothermal Self-Assembly. Chemistry of Materials, 2006, 18, 3034-3038.   | 6.7  | 34        |

| #   | Article   | IF   | CITATIONS |
|-----|---|------|-----------|
| 127 | Drying transition of confined water. Nature, 2006, 442, 526-526.  | 27.8 | 123       |
| 128 | Morphological control of surfactant-templated metal oxide films. Current Opinion in Colloid and Interface Science, 2006, 11, 126-132.   | 7.4  | 89        |
| 129 | Two-photon absorption of matrix-free Ge nanocrystals. Applied Physics Letters, 2006, 89, 111107.  | 3.3  | 13        |
| 130 | NANOPARTICLE-MICELLE: A NEW BUILDING BLOCK FOR FACILE SELF-ASSEMBLY AND INTEGRATION OF 2-, 3-DIMENSIONAL FUNCTIONAL NANOSTRUCTURES. Annual Review of Nano Research, 2006, , 153-187.              | 0.2  | 0         |
| 131 | Optical and electrical properties of self-assembled, ordered gold nanocrystal/silica thin films prepared by sol–gel processing. Thin Solid Films, 2005, 491, 38-42.                               | 1.8  | 21        |
| 132 | Aqueous sol–gel encapsulation of genetically engineered Moraxella spp. cells for the detection of organophosphates. Biosensors and Bioelectronics, 2005, 20, 1433-1437.                           | 10.1 | 85        |
| 133 | Microporous sol–gel derived aminosilicate membrane for enhanced carbon dioxide separation.<br>Separation and Purification Technology, 2005, 42, 249-257.  | 7.9  | 86        |
| 134 | Surface Plasmon Excitation in Three-dimensional, Ordered, Gold Nanocrystal Arrays Using a Prism Coupler. Materials Research Society Symposia Proceedings, 2005, 900, 1.                           | 0.1  | 0         |
| 135 | Electrical and Optical Properties of Self-Assembled, Ordered Gold Nanocrystal/Silica Thin Films<br>Prepared by Sol-Gel Processing. Materials Research Society Symposia Proceedings, 2005, 872, 1. | 0.1  | 2         |
| 136 | Investigating the Interface of Superhydrophobic Surfaces in Contact with Water. Langmuir, 2005, 21, 7805-7811.  | 3.5  | 65        |
| 137 | Quantitative SAXS Analysis of Oriented 2D Hexagonal Cylindrical Silica Mesostructures in Thin Films Obtained from Nonionic Surfactants. Langmuir, 2005, 21, 3858-3866.                            | 3.5  | 41        |
| 138 | Neutron Reflectivity Study of Lipid Membranes Assembled on Ordered Nanocomposite and Nanoporous Silica Thin Films. Langmuir, 2005, 21, 2865-2870.   | 3.5  | 45        |
| 139 | Polydiacetylene/Silica Nanocomposites with Tunable Mesostructure and Thermochromatism from Diacetylenic Assembling Molecules. Journal of the American Chemical Society, 2005, 127, 12782-12783.   | 13.7 | 107       |
| 140 | Comparative Study of Inorganic Clusterâ^'Surfactant Arrays. Chemistry of Materials, 2005, 17, 2885-2895.  | 6.7  | 75        |
| 141 | Surfactant-Assisted Synthesis of Water-Soluble and Biocompatible Semiconductor Quantum Dot Micelles. Nano Letters, 2005, 5, 645-648.  | 9.1  | 233       |
| 142 | Synthesis of Organo-Silane Functionalized Nanocrystal Micelles and Their Self-Assembly. Journal of the American Chemical Society, 2005, 127, 13746-13747.   | 13.7 | 56        |
| 143 | A General Route to Macroscopic Hierarchical 3D Nanowire Networks. Angewandte Chemie - International Edition, 2004, 43, 6169-6173.   | 13.8 | 123       |
| 144 | Photoregulation of Mass Transport through a Photoresponsive Azobenzene-Modified Nanoporous Membrane. Nano Letters, 2004, 4, 551-554.  | 9.1  | 352       |

| #   | Article  | lF | CITATIONS |
|-----|--|----|-----------|
|     | Unusual Hydrocarbon Chain Packing Mode and Modification of Crystallite Growth Habit in the |    |           |
| 145 |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |
|     |  |    |           |

| #   | Article   | IF   | Citations |
|-----|---|------|-----------|
| 163 | Novel Amine-Functional Membrane for Metabolic CO2 Removal from Spacesuit Breathing Loop. AIP Conference Proceedings, 2003, , .  | 0.4  | 1         |
| 164 | Monodisperse Mesoporous Microparticles Prepared by Evaporation-Induced Self Assembly Within Aerosols. Materials Research Society Symposia Proceedings, 2003, 775, 1111.   | 0.1  | 3         |
| 165 | Self-Directed Assembly of Photoactive Hybrid Silicates Derived from an Azobenzene-Bridged Silsesquioxane. Journal of the American Chemical Society, 2002, 124, 14540-14541.   | 13.7 | 124       |
| 166 | Interface Chemistry of Nanostructured Materials: Ion Adsorption on Mesoporous Alumina. Journal of Colloid and Interface Science, 2002, 254, 23-30.  | 9.4  | 80        |
| 167 | Multiphased assembly of nanoporous silica particles. Journal of Non-Crystalline Solids, 2001, 285, 71-78.   | 3.1  | 50        |
| 168 | Syntheses of Silica/Polystyrene-block-Poly(ethylene oxide) Films with Regular and Reverse Mesostructures of Large Characteristic Length Scales by Solvent Evaporation-Induced Self-Assembly. Langmuir, 2001, 17, 7961-7965. | 3.5  | 127       |
| 169 | Self-assembly of mesoscopically ordered chromatic polydiacetylene/silica nanocomposites. Nature, 2001, 410, 913-917.  | 27.8 | 531       |
| 170 | Dual-layer asymmetric microporous silica membranes. Journal of Membrane Science, 2000, 169, 255-268.  | 8.2  | 203       |
| 171 | Rapid prototyping of patterned functional nanostructures. Nature, 2000, 405, 56-60.   | 27.8 | 396       |
| 172 | Optically Defined Multifunctional Patterning of Photosensitive Thin-Film Silica Mesophases. Science, 2000, 290, 107-111.  | 12.6 | 166       |
| 173 | A New Application of UVâ^'Ozone Treatment in the Preparation of Substrate-Supported, Mesoporous Thin Films. Chemistry of Materials, 2000, 12, 3879-3884.  | 6.7  | 128       |
| 174 | Evaporation-Induced Self-Assembly of Hybrid Bridged Silsesquioxane Film and Particulate Mesophases with Integral Organic Functionality. Journal of the American Chemical Society, 2000, 122, 5258-5261.                     | 13.7 | 475       |
| 175 | Aqueous Solâ^'Gel Process for Protein Encapsulation. Chemistry of Materials, 2000, 12, 2434-2441.   | 6.7  | 329       |
| 176 | Aerosol-assisted self-assembly of mesostructured spherical nanoparticles. Nature, 1999, 398, 223-226.   | 27.8 | 955       |
| 177 | Evaporation-Induced Self-Assembly: Nanostructures Made Easy. Advanced Materials, 1999, 11, 579-585.   | 21.0 | 1,967     |
| 178 | Catalytic Membrane Sensors. A Thin Film Modified H2Resistive Sensor for Multi-Molecular Detection. Comments on Inorganic Chemistry, 1999, 20, 209-231.  | 5.2  | 6         |
| 179 | Microporous Silica Prepared by Organic Templating:Â Relationship between the Molecular Template and Pore Structure. Chemistry of Materials, 1999, 11, 1223-1229.  | 6.7  | 96        |
| 180 | In-Situ Characterization of Stress Development in Gelatin Film During Controlled Drying. Materials Research Society Symposia Proceedings, 1999, 594, 263.   | 0.1  | 0         |

| #   | Article   | IF   | CITATIONS |
|-----|---|------|-----------|
| 181 | Stress Development in Low Dielectric Constant Silica Films During Drying and Heating Process.<br>Materials Research Society Symposia Proceedings, 1999, 594, 463. | 0.1  | 2         |
| 182 | Continuous self-assembly of organic–inorganic nanocomposite coatings that mimic nacre. Nature, 1998, 394, 256-260.  | 27.8 | 554       |
| 183 | Oriented inorganic films. Current Opinion in Colloid and Interface Science, 1998, 3, 166-173.   | 7.4  | 33        |
| 184 | Direct Measurement of Solvation Forces in Complex Microporous Media:Â A New Characterization Tool. Langmuir, 1998, 14, 2602-2605.                                 | 3.5  | 21        |
| 185 | Continuous formation of supported cubic and hexagonal mesoporous films by sol–gel dip-coating.<br>Nature, 1997, 389, 364-368.                                     | 27.8 | 1,417     |
| 186 | Template-Based Approaches to the Preparation of Amorphous, Nanoporous Silicas. Chemistry of Materials, 1996, 8, 1682-1701.  | 6.7  | 745       |
| 187 | Porous inorganic materials. Current Opinion in Solid State and Materials Science, 1996, 1, 798-805.   | 11.5 | 88        |
| 188 | Amorphous silica molecular sieving membranes by sol-gel processing. Advanced Materials, 1996, 8, 588-591.   | 21.0 | 87        |
| 189 | Environmental microscopy in stone conservation. Scanning, 1996, 18, 508-514.  | 1.5  | 8         |
| 190 | In Situ Fluorescence Probing of the Chemical Changes during Sol-Gel Thin Film Formation. Journal of the American Ceramic Society, 1995, 78, 1640-1648.            | 3.8  | 99        |
| 191 | Silica aerogel films prepared at ambient pressure by using surface derivatization to induce reversible drying shrinkage. Nature, 1995, 374, 439-443.              | 27.8 | 412       |
| 192 | Fundamentals of sol-gel dip-coating. Journal De Physique III, 1994, 4, 1231-1242.   | 0.3  | 372       |
| 193 | Gas/vapor adsorption in imogolite: a microporous tubular aluminosilicate. Langmuir, 1993, 9, 1051-1057.   | 3.5  | 113       |
| 194 | Imogolite as a Material for Fabrication of Inorganic Membranes. Materials Research Society Symposia Proceedings, 1992, 271, 511.                                  | 0.1  | 3         |
| 195 | Sol-Gel Films With Tailored Microstructures. Materials Research Society Symposia Proceedings, 1992, 271, 541.   | 0.1  | 9         |
| 196 | Pore structure evolution in silica gel during aging/drying I. Temporal and thermal aging. Journal of Non-Crystalline Solids, 1992, 142, 189-196.                  | 3.1  | 110       |
| 197 | Pore structure evolution in silica gel during aging/drying II. Effect of pore fluids. Journal of Non-Crystalline Solids, 1992, 142, 197-207.                      | 3.1  | 85        |
| 198 | Pore structure evolution in silica gel during aging/drying. III. Effects of surface tension. Journal of Non-Crystalline Solids, 1992, 144, 32-44.                 | 3.1  | 153       |

| #   | Article  | IF   | CITATIONS |
|-----|--|------|-----------|
| 199 | Experimental evidence for two fundamentally different $E\hat{a}\in \mathbb{C}^2$ precursors in amorphous silicon dioxide. Journal of Non-Crystalline Solids, 1991, 136, 151-162. | 3.1  | 46        |
| 200 | Effect of Physical Structure on the Phase Development of Aluminosilicate Gels. Journal of the American Ceramic Society, 1991, 74, 2393-2397.                                     | 3.8  | 8         |
| 201 | Structural Studies of Anomalous Behavior in the Silica-Alumina Gel System. Journal of the American Ceramic Society, 1990, 73, 2815-2821.   | 3.8  | 28        |
| 202 | Anomalously Low Surface Area and Density in the Silica-Alumina Gel System. Journal of the American Ceramic Society, 1989, 72, 2354-2358.   | 3.8  | 21        |
| 203 | Molecular sieve sensors for selective detection at the nanogram level. Journal of the American Chemical Society, 1989, 111, 7640-7641.   | 13.7 | 137       |
| 204 | In situ pore structure studies of xerogel drying. Chemistry of Materials, 1989, 1, 34-40.  | 6.7  | 34        |
| 205 | Photoresponsive Hybrid Silica Materials Containing Azobenzene Ligands. , 0, , 457-507.   |      | 1         |