

# Stefan Bromley

## List of Publications by Year in descending order

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176  
papers

7,069  
citations

61984

43  
h-index

69250

77  
g-index

185  
all docs

185  
docs citations

185  
times ranked

7185  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Bottom-up dust nucleation theory in oxygen-rich evolved stars. <i>Astronomy and Astrophysics</i> , 2022, 658, A167.  | 5.1  | 22        |
| 2  | Can calculated harmonic vibrational spectra rationalize the structure of TiC-based nanoparticles?. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 778-785.   | 2.8  | 1         |
| 3  | Functionalising the gate dielectric of organic field-effect transistors with self-assembled monolayers: effect of molecular electronic structure on device performance. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1. | 2.3  | 3         |
| 4  | Efficiency of Interstellar Nanodust Heating: Accurate Bottom-up Calculations of Nanosilicate Specific Heat Capacities. <i>Journal of Physical Chemistry A</i> , 2022, 126, 3854-3862.  | 2.5  | 1         |
| 5  | X-ray Detectors With Ultrahigh Sensitivity Employing High Performance Transistors Based on a Fully Organic Small Molecule Semiconductor/Polymer Blend Active Layer. <i>Advanced Electronic Materials</i> , 2022, 8, .                              | 5.1  | 11        |
| 6  | 2D Hexagonal Covalent Organic Radical Frameworks as Tunable Correlated Electron Systems. <i>Advanced Functional Materials</i> , 2021, 31, 2004584.   | 14.9 | 14        |
| 7  | Perspectives for polychlorinated trityl radicals. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10610-10623.  | 5.5  | 22        |
| 8  | Twistable dipolar aryl rings as electric field actuated conformational molecular switches. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 3844-3855.   | 2.8  | 9         |
| 9  | Understanding the nature and location of hydroxyl groups on hydrated titania nanoparticles. <i>Nanoscale</i> , 2021, 13, 6577-6585.  | 5.6  | 35        |
| 10 | How Does Temperature Affect the Infrared Vibrational Spectra of Nanosized Silicate Dust?. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 812-823.   | 2.7  | 9         |
| 11 | Controlling pairing of $\pi$ -conjugated electrons in 2D covalent organic radical frameworks via in-plane strain. <i>Nature Communications</i> , 2021, 12, 1705.   | 12.8 | 18        |
| 12 | Formation of Interstellar Silicate Dust via Nanocluster Aggregation: Insights From Quantum Chemistry Simulations. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .  | 2.8  | 2         |
| 13 | Does Processing or Formation of Water Ice Mantles Affect the Capacity of Nanosilicates to Be the Source of Anomalous Microwave Emission?. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .  | 2.8  | 3         |
| 14 | Enhancing Long-Term Device Stability Using Thin Film Blends of Small Molecule Semiconductors and Insulating Polymers to Trap Surface-Induced Polymorphs. <i>Advanced Functional Materials</i> , 2020, 30, 2006115.                                 | 14.9 | 23        |
| 15 | Assessing the viability of silicate nanoclusters as carriers of the anomalous microwave emission: a quantum mechanical study. <i>Astronomy and Astrophysics</i> , 2020, 634, A77.  | 5.1  | 11        |
| 16 | Neutral Organic Radical Formation by Chemisorption on Metal Surfaces. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3897-3904.  | 4.6  | 11        |
| 17 | Electronic, Structural and Functional Versatility in Tetrathiafulvalene-Lanthanide Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2019, 25, 12636-12643.  | 3.3  | 40        |
| 18 | Understanding H <sub>2</sub> Formation on Hydroxylated Pyroxene Nanoclusters: Ab Initio Study of the Reaction Energetics and Kinetics. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9282-9291.  | 2.5  | 8         |

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|----|---|------|-----------|
| 19 | What Can Infrared Spectra Tell Us about the Crystallinity of Nanosized Interstellar Silicate Dust Grains?. ACS Earth and Space Chemistry, 2019, 3, 2323-2338.   | 2.7  | 18        |
| 20 | Structure and Properties of Nanosilicates with Olivine ( $\text{Mg}_2\text{SiO}_4$ ) <sub>N</sub> and Pyroxene ( $\text{MgSiO}_3$ ) <sub>N</sub> Compositions. ACS Earth and Space Chemistry, 2019, 3, 2390-2403.   | 2.7  | 30        |
| 21 | Efficient preparation of TiO <sub>2</sub> nanoparticle models using interatomic potentials. Journal of Chemical Physics, 2019, 150, 214305.   | 3.0  | 9         |
| 22 | Room Temperature Methane Capture and Activation by Ni Clusters Supported on TiC(001): Effects of Metal-Carbide Interactions on the Cleavage of the C-H Bond. Journal of the American Chemical Society, 2019, 141, 5303-5313.  | 13.7 | 57        |
| 23 | Understanding the interplay between size, morphology and energy gap in photoactive TiO <sub>2</sub> nanoparticles. Nanoscale, 2019, 11, 9032-9041.  | 5.6  | 45        |
| 24 | Oxygen Vacancies in Oxide Nanoclusters: When Silica Is More Reducible Than Titania. Frontiers in Chemistry, 2019, 7, 37.  | 3.6  | 4         |
| 25 | How to accurately model IR spectra of nanosized silicate grains. Proceedings of the International Astronomical Union, 2019, 15, 431-433.  | 0.0  | 0         |
| 26 | From molecules to dust grains: The role of alumina cluster seeds. Proceedings of the International Astronomical Union, 2019, 15, 245-248.   | 0.0  | 0         |
| 27 | Assessing the usefulness of transition metal carbides for hydrogenation reactions. Chemical Communications, 2019, 55, 12797-12800.  | 4.1  | 37        |
| 28 | Triarylmethyl-based 2D covalent networks: virtual screening of chemical functionalisation for optimising strain-induced property control. Physical Chemistry Chemical Physics, 2018, 20, 5028-5035.   | 2.8  | 4         |
| 29 | Stability of mixed-oxide titanosilicates: dependency on size and composition from nanocluster to bulk. Nanoscale, 2018, 10, 832-842.  | 5.6  | 16        |
| 30 | Properties of hydrated TiO <sub>2</sub> and SiO <sub>2</sub> nanoclusters: dependence on size, temperature and water vapour pressure. Nanoscale, 2018, 10, 21518-21532.   | 5.6  | 10        |
| 31 | On the onset of dust formation in AGB stars. Proceedings of the International Astronomical Union, 2018, 14, 119-128.  | 0.0  | 0         |
| 32 | Diversity of Adsorbed Hydrogen on the TiC(001) Surface at High Coverages. Journal of Physical Chemistry C, 2018, 122, 28013-28020.  | 3.1  | 17        |
| 33 | Introduction to modeling nanoclusters and nanoparticles. Frontiers of Nanoscience, 2018, 12, 1-54.  | 0.6  | 4         |
| 34 | A global optimisation study of the low-lying isomers of the alumina octomer (Al <sub>2</sub> O <sub>3</sub> ) <sub>8</sub> . Chemical Physics Letters, 2018, 711, 138-147.  | 2.6  | 18        |
| 35 | Global optimisation of hydroxylated silica clusters: A cascade Monte Carlo Basin Hopping approach. Computational and Theoretical Chemistry, 2017, 1102, 38-43.  | 2.5  | 14        |
| 36 | When Anatase Nanoparticles Become Bulklike: Properties of Realistic TiO <sub>2</sub> Nanoparticles in the 1-6 nm Size Range from All Electron Relativistic Density Functional Theory Based Calculations. Journal of Chemical Theory and Computation, 2017, 13, 1785-1793. | 5.3  | 87        |

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|----|---|------|-----------|
| 37 | Study of the Eâ€Z stilbene isomerisation in perchlorotriphenyl-methane (PTM) derivatives. RSC Advances, 2017, 7, 15278-15283.   | 3.6  | 7         |
| 38 | How hydroxylation affects hydrogen adsorption and formation on nanosilicates. Molecular Astrophysics, 2017, 7, 1-8.   | 1.6  | 14        |
| 39 | Nucleation of Small Silicon Carbide Dust Clusters in AGB Stars. Astrophysical Journal, 2017, 840, 117.  | 4.5  | 32        |
| 40 | Modeling hydroxylated nanosilica: Testing the performance of ReaxFF and FFSiOH force fields. Journal of Chemical Physics, 2017, 146, 224704.  | 3.0  | 12        |
| 41 | Direct covalent grafting of an organic radical core on gold and silver. RSC Advances, 2017, 7, 20076-20083.   | 3.6  | 10        |
| 42 | Operative Mechanism of Hole-Assisted Negative Charge Motion in Ground States of Radical-Anion Molecular Wires. Journal of the American Chemical Society, 2017, 139, 686-692.                | 13.7 | 25        |
| 43 | Size-Dependent Level Alignment between Rutile and Anatase TiO <sub>2</sub> Nanoparticles: Implications for Photocatalysis. Journal of Physical Chemistry Letters, 2017, 8, 5593-5598.       | 4.6  | 75        |
| 44 | Existence of multi-radical and closed-shell semiconducting states in post-graphene organic Dirac materials. Nature Communications, 2017, 8, 1957.   | 12.8 | 45        |
| 45 | Size dependent structural and polymorphic transitions in ZnO: from nanocluster to bulk. Nanoscale, 2017, 9, 10067-10074.  | 5.6  | 49        |
| 46 | Development of Interatomic Potentials for Supported Nanoparticles: The Cu/ZnO Case. Journal of Physical Chemistry C, 2017, 121, 16831-16844.  | 3.1  | 19        |
| 47 | Design of multi-functional 2D open-shell organic networks with mechanically controllable properties. Chemical Science, 2017, 8, 1027-1039.  | 7.4  | 16        |
| 48 | Predicting size-dependent emergence of crystallinity in nanomaterials: titania nanoclusters versus nanocrystals. Nanoscale, 2017, 9, 1049-1058.   | 5.6  | 79        |
| 49 | Computing Free Energies of Hydroxylated Silica Nanoclusters: Forcefield versus Density Functional Calculations. Inorganics, 2017, 5, 41.  | 2.7  | 3         |
| 50 | Silicate Nanoclusters: Understanding Their Cosmic Relevance from Bottom-Up Modelling. Challenges and Advances in Computational Chemistry and Physics, 2017, , 237-268.                      | 0.6  | 1         |
| 51 | Structural and electronic characterisation of Î€-extended tetrathiafulvalene derivatives as active components in field-effect transistors. CrystEngComm, 2016, 18, 6149-6152.               | 2.6  | 10        |
| 52 | Effect of Size and Structure on the Ground-State and Excited-State Electronic Structure of TiO <sub>2</sub> Nanoparticles. Journal of Chemical Theory and Computation, 2016, 12, 3751-3763. | 5.3  | 53        |
| 53 | Dust formation in the oxygen-rich AGB star IK Tauri. Astronomy and Astrophysics, 2016, 585, A6.   | 5.1  | 141       |
| 54 | Under what conditions does (SiO) <sub>N</sub> nucleation occur? A bottom-up kinetic modelling evaluation. Physical Chemistry Chemical Physics, 2016, 18, 26913-26922.                       | 2.8  | 37        |

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|----|---|------|-----------|
| 55 | Tuning Crystal Ordering, Electronic Structure, and Morphology in Organic Semiconductors: Tetrathiafulvalenes as a Model Case. <i>Advanced Functional Materials</i> , 2016, 26, 2256-2275.             | 14.9 | 50        |
| 56 | Evidence for multi-polymorphic islands during epitaxial growth of ZnO on Ag(111). <i>Journal of Physics Condensed Matter</i> , 2016, 28, 224007.  | 1.8  | 9         |
| 57 | Exchange Coupling Inversion in a High-Spin Organic Triradical Molecule. <i>Nano Letters</i> , 2016, 16, 2066-2071.  | 9.1  | 60        |
| 58 | Cosmic and Atmospheric Nanosilicates. <i>Series in Materials Science and Engineering</i> , 2016, , 369-412.   | 0.1  | 1         |
| 59 | Dust in brown dwarfs and extra-solar planets. <i>Astronomy and Astrophysics</i> , 2015, 575, A11.   | 5.1  | 36        |
| 60 | Structural control over spin localization in triarylmethyls. <i>RSC Advances</i> , 2015, 5, 98593-98599.  | 3.6  | 15        |
| 61 | Reduced ceria nanofilms from structure prediction. <i>Nanoscale</i> , 2015, 7, 4361-4366.   | 5.6  | 20        |
| 62 | Trends in the adsorption and reactivity of hydrogen on magnesium silicate nanoclusters. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8951-8963.   | 2.8  | 13        |
| 63 | Kondo Effect in a Neutral and Stable All Organic Radical Single Molecule Break Junction. <i>Nano Letters</i> , 2015, 15, 3109-3114.   | 9.1  | 117       |
| 64 | HOMO Stabilisation in $\pi$ -Extended Dibenzotetrathiafulvalene Derivatives for Their Application in Organic Field-Effect Transistors. <i>Chemistry - A European Journal</i> , 2014, 20, 16672-16679. | 3.3  | 14        |
| 65 | Low-energy nanoscale clusters of $(TiC)_n$ $n = 6, 12$ : a structural and energetic comparison with MgO. <i>Highlights in Theoretical Chemistry</i> , 2014, , 213-218.                                | 0.0  | 2         |
| 66 | Bandgap engineering through nanoporosity. <i>Nanoscale</i> , 2014, 6, 1181-1187.  | 5.6  | 26        |
| 67 | Challenges in modelling the reaction chemistry of interstellar dust. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 18623.  | 2.8  | 26        |
| 68 | From monomer to monolayer: a global optimisation study of $(ZnO)_n$ nanoclusters on the Ag surface. <i>Nanoscale</i> , 2014, 6, 14754-14765.  | 5.6  | 9         |
| 69 | Effect of spin ordering on structure and structural transitions in the $(MnS)_6$ magic cluster. <i>Chemical Physics Letters</i> , 2013, 556, 207-210.   | 2.6  | 3         |
| 70 | Hydroxylation of silica nanoclusters $(SiO_2)_M(H_2O)_N$ , $M = 4, 8, 16, 24$ : stability and structural trends. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 20438.                        | 2.8  | 15        |
| 71 | Magic Numbers in a One-Dimensional Nanosystem: ZnS Single-Walled Nanotubes. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22908-22914.  | 3.1  | 9         |
| 72 | Low-energy nanoscale clusters of $(TiC)_n$ $n = 6, 12$ : a structural and energetic comparison with MgO. <i>Theoretical Chemistry Accounts</i> , 2013, 132, 1.  | 1.4  | 7         |

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|----|--|-----|-----------|
| 73 | Nanofilm versus Bulk Polymorphism in Wurtzite Materials. <i>Physical Review Letters</i> , 2013, 110, 245501.   | 7.8 | 24        |
| 74 | Competing mechanisms of catalytic H <sub>2</sub> formation and dissociation on ultrasmall silicate nanocluster dust grains. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 435, 1486-1492.   | 4.4 | 21        |
| 75 | One-dimensional embedded cluster approach to modeling CdS nanowires. <i>Journal of Chemical Physics</i> , 2013, 139, 124101.   | 3.0 | 6         |
| 76 | Stardust silicate nucleation kick-started by SiO <sub>2</sub> +TiO <sub>2</sub> . <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20110580.  | 3.4 | 19        |
| 77 | PTM Radicals for Molecular-Based Electronic Devices. <i>Advances in Atom and Single Molecule Machines</i> , 2013, , 71-85.   | 0.0 | 0         |
| 78 | Nanoscale thermal stabilization via permutational premelting. <i>Physical Review B</i> , 2012, 85, .   | 3.2 | 11        |
| 79 | Evidence for atomic mixing via multiple intermediates during the dynamic interconversion of silicate oligomers in solution. <i>Chemical Communications</i> , 2012, 48, 46-48.  | 4.1 | 13        |
| 80 | Octahedrality versus tetrahedrality in stoichiometric ceria nanoparticles. <i>Chemical Communications</i> , 2012, 48, 4199.  | 4.1 | 25        |
| 81 | Chiral Conformation at a Molecular Level of a Propeller-Like Open-Shell Molecule on Au(111). <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1559-1564.  | 4.6 | 22        |
| 82 | Evidence of intrinsic ambipolar charge transport in a high band gap organic semiconductor. <i>Journal of Materials Chemistry</i> , 2012, 22, 345-348.  | 6.7 | 11        |
| 83 | Long range coupling between defect centres in inorganic nanostructures: Valence alternation pairs in nanoscale silica. <i>Journal of Chemical Physics</i> , 2012, 137, 154313.   | 3.0 | 7         |
| 84 | Structure and energetics of hydroxylated silica clusters, (SiO <sub>2</sub> ) <sub>M</sub> (H <sub>2</sub> O) <sub>N</sub> , M=8, 16 and N=1-4: A global optimisation study. <i>Chemical Physics Letters</i> , 2012, 554, 117-122.   | 2.6 | 9         |
| 85 | Interplay between Magnetism and Magicness in Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20625-20632.  | 3.1 | 5         |
| 86 | Efficient nucleation of stardust silicates via heteromolecular homogeneous condensation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, , no-no.   | 4.4 | 33        |
| 87 | Structure direction in zinc oxide and related materials by cation substitution: an analogy with zeolites. <i>Journal of Materials Chemistry</i> , 2011, 21, 15255.   | 6.7 | 14        |
| 88 | The fate of optical excitations in small hydrated ZnS clusters: a theoretical study into the effect of hydration on the excitation and localisation of electrons in Zn <sub>4</sub> S <sub>4</sub> and Zn <sub>6</sub> S <sub>6</sub> . <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 9311. | 2.8 | 18        |
| 89 | Negative differential resistance (NDR) in similar molecules with distinct redox behaviour. <i>Chemical Communications</i> , 2011, 47, 4664.  | 4.1 | 30        |
| 90 | A theoretical study of a ZnO graphene analogue: adsorption on Ag(111) and hydrogen transport. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 334215.   | 1.8 | 5         |

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|-----|--|------|-----------|
| 91  | Formation of Superoxide Anions on Ceria Nanoparticles by Interaction of Molecular Oxygen with Ce <sup>3+</sup> Sites. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5817-5822.   | 3.1  | 107       |
| 92  | The fate of optical excitations in small polyhedral ZnS clusters: A theoretical study of the excitation and localization of electrons in Zn <sub>4</sub> S <sub>4</sub> and Zn <sub>6</sub> S <sub>6</sub> . <i>Journal of Chemical Physics</i> , 2011, 134, 064511. | 3.0  | 18        |
| 93  | Theoretical Investigation of the Hydrogenation of (TiO <sub>2</sub> ) <sub>N</sub> Clusters ( <i>N</i> = 1–10). <i>Journal of Physical Chemistry C</i> , 2011, 115, 15890-15899.   | 3.1  | 69        |
| 94  | Hydrogen and oxygen adsorption on a nanosilicate - a quantum chemical study. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 414, 1285-1291.  | 4.4  | 27        |
| 95  | Structural and electronic bistability in ZnS single sheets and single-walled nanotubes. <i>Physical Review B</i> , 2011, 83, .   | 3.2  | 41        |
| 96  | Structural richness of ionic binary materials: An exploration of the energy landscape of magnesium oxide. <i>Physical Review B</i> , 2011, 83, .   | 3.2  | 24        |
| 97  | Greatly facilitated oxygen vacancy formation in ceria nanocrystallites. <i>Chemical Communications</i> , 2010, 46, 5936.   | 4.1  | 160       |
| 98  | Silica as an Exceptionally Versatile Nanoscale Building Material. <i>Science and Technology of Atomic, Molecular, Condensed Matter and Biological Systems</i> , 2010, 1, 383-413.  | 0.6  | 0         |
| 99  | Modelling nano-clusters and nucleation. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 786-811.  | 2.8  | 174       |
| 100 | Dramatic reduction of the oxygen vacancy formation energy in ceria particles: a possible key to their remarkable reactivity at the nanoscale. <i>Journal of Materials Chemistry</i> , 2010, 20, 10535.   | 6.7  | 192       |
| 101 | Predicting transition pressures for obtaining nanoporous semiconductor polymorphs: oxides and chalcogenides of Zn, Cd and Mg. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 8513.   | 2.8  | 26        |
| 102 | Apparent Scarcity of Low-Density Polymorphs of Inorganic Solids. <i>Physical Review Letters</i> , 2010, 104, 175503.   | 7.8  | 46        |
| 103 | Prospective Role of Multicenter Bonding for Efficient and Selective Hydrogen Transport. <i>Physical Review Letters</i> , 2010, 105, 045901.  | 7.8  | 17        |
| 104 | An extensive theoretical survey of low-density allotropy in silicon. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 8505.  | 2.8  | 45        |
| 105 | Zeolite synthesis: an energetic perspective. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14579.   | 2.8  | 11        |
| 106 | Persistence of magic cluster stability in ultra-thin semiconductor nanorods. <i>Nanoscale</i> , 2010, 2, 72-77.  | 5.6  | 23        |
| 107 | Exploring Ce <sup>3+</sup> /Ce <sup>4+</sup> cation ordering in reduced ceria nanoparticles using interionic-potential and density-functional calculations. <i>Journal of Chemical Physics</i> , 2009, 131, 064701.  | 3.0  | 50        |
| 108 | Dramatic Influence of the Electronic Structure on the Conductivity through Open and Closed Shell Molecules. <i>Advanced Materials</i> , 2009, 21, 1177-1181.   | 21.0 | 45        |

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|-----|--|------|-----------|
| 109 | Defective to fully coordinated crossover in complex directionally bonded nanoclusters. <i>Physical Review B</i> , 2009, 80, .  | 3.2  | 17        |
| 110 | The effect of local environment on photoluminescence: A time-dependent density functional theory study of silanone groups on the surface of silica nanostructures. <i>Journal of Chemical Physics</i> , 2009, 131, 034705.                           | 3.0  | 32        |
| 111 | Approaching nanoscale oxides: models and theoretical methods. <i>Chemical Society Reviews</i> , 2009, 38, 2657.  | 38.1 | 105       |
| 112 | Prediction of half-metallic conductivity in Prussian Blue derivatives. <i>Journal of Materials Chemistry</i> , 2009, 19, 2032.   | 6.7  | 41        |
| 113 | Modelling organic molecular crystals by hybrid quantum mechanical/molecular mechanical embedding. <i>Chemical Physics Letters</i> , 2008, 457, 154-158.  | 2.6  | 15        |
| 114 | Density functional studies of model cerium oxide nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 5730.   | 2.8  | 125       |
| 115 | On the prediction of the crystal and electronic structure of mixed-valence materials by periodic density functional calculations: The case of Prussian Blue. <i>Journal of Chemical Physics</i> , 2008, 128, 044713.                                 | 3.0  | 35        |
| 116 | Stable nanoporous alkali halide polymorphs: a first principles bottom-up study. <i>Journal of Materials Chemistry</i> , 2008, 18, 5871.  | 6.7  | 30        |
| 117 | Low reactivity of non-bridging oxygen defects on stoichiometric silica surfaces. <i>Chemical Communications</i> , 2008, , 4156.  | 4.1  | 20        |
| 118 | Dependence of charge transfer reorganization energy on carrier localisation in organic molecular crystals. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 121-127.   | 2.8  | 43        |
| 119 | Structural Correspondences between the Low-Energy Nanoclusters of Silica and Water. <i>Journal of Physical Chemistry C</i> , 2008, 112, 18417-18425.   | 3.1  | 7         |
| 120 | Optical excitations of defects in realistic nanoscale silica clusters: Comparing the performance of density functional theory using hybrid functionals with correlated wavefunction methods. <i>Journal of Chemical Physics</i> , 2008, 129, 014706. | 3.0  | 11        |
| 121 | Point defects in ZnO. <i>Faraday Discussions</i> , 2007, 134, 267-282.   | 3.2  | 151       |
| 122 | A computational study into the viability of new molecular materials polymorphs based on fully-coordinated inorganic nanoclusters. <i>CrystEngComm</i> , 2007, 9, 463.  | 2.6  | 10        |
| 123 | Energetics and structures of the initial stages of nucleation of (SiO <sub>2</sub> ) <sub>N</sub> species: possible routes to highly symmetrical tetrahedral clusters. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 1078-1086.              | 2.8  | 21        |
| 124 | Ultralow-Density Nanocage-Based Metal-Oxide Polymorphs. <i>Physical Review Letters</i> , 2007, 99, 235502.   | 7.8  | 119       |
| 125 | Understanding Ceria Nanoparticles from First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10142-10145.   | 3.1  | 99        |
| 126 | Influence of Intermolecular Interactions on the Formation of Tetra(carbomethoxy)tetra-thiafulvalene Assemblies. <i>ChemPhysChem</i> , 2007, 8, 1565-1571.  | 2.1  | 7         |



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|-----|---|-----|-----------|
| 127 | Development of realistic models for Double Metal Cyanide catalyst active sites. Journal of Molecular Modeling, 2007, 13, 751-756.   | 1.8 | 42        |
| 128 | Comparing the influence of framework type on H <sub>2</sub> absorption in hypothetical and existing clathrasils: a grand canonical Monte Carlo study. Journal of Materials Chemistry, 2006, 16, 3285.   | 6.7 | 6         |
| 129 | Molecular Dynamics-based Approach to Study the Anisotropic Self-Diffusion of Molecules in Porous Materials with Multiple Cage Types: A Application to H <sub>2</sub> in Losod. Journal of Physical Chemistry B, 2006, 110, 501-506.                   | 2.6 | 2         |
| 130 | Band Gap Variation in Prussian Blue via Cation-Induced Structural Distortion. Journal of Physical Chemistry B, 2006, 110, 24294-24298.  | 2.6 | 37        |
| 131 | Magic Silica Clusters as Nanoscale Building Units for Super-(Tris)tetrahedral Materials. Chemistry of Materials, 2006, 18, 1464-1469.   | 6.7 | 27        |
| 132 | New materials from fully coordinated SiO <sub>2</sub> nanoclusters. Computational Materials Science, 2006, 35, 382-386.   | 3.0 | 18        |
| 133 | Predicting the low energy landscape of nanoscale silica using interatomic potentials. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1319-1323.   | 1.8 | 7         |
| 134 | Adsorption isotherms of H <sub>2</sub> in microporous materials with the SOD structure: A grand canonical Monte Carlo study. Microporous and Mesoporous Materials, 2006, 87, 235-242.   | 4.4 | 37        |
| 135 | Importance of the embedding environment on the strain within small rings in siliceous materials. Physical Review B, 2006, 73, .   | 3.2 | 19        |
| 136 | Thermodynamic limits on hydrogen storage in sodalite framework materials: a molecular mechanics investigation. Microporous and Mesoporous Materials, 2005, 78, 63-71.   | 4.4 | 55        |
| 137 | From cluster calculations to molecular materials: a mixed pseudopotential approach to modeling mixed-valence systems. Journal of Molecular Modeling, 2005, 11, 288-292.   | 1.8 | 6         |
| 138 | Molecular hydrogen confined within nanoporous framework materials: Comparison of density functional and classical force-field descriptions. Physical Review B, 2005, 72, .  | 3.2 | 22        |
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