

# Dylan Jayatilaka

## List of Publications by Year in descending order

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145  
papers

18,326  
citations

47006

47  
h-index

12946

131  
g-index

155  
all docs

155  
docs citations

155  
times ranked

10495  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hirshfeld surface analysis. <i>CrystEngComm</i> , 2009, 11, 19-32.	2.6	5,526
2	Towards quantitative analysis of intermolecular interactions with Hirshfeld surfaces. <i>Chemical Communications</i> , 2007, , 3814.	4.1	2,589
3	<i>CrystalExplorer</i> : a program for Hirshfeld surface analysis, visualization and quantitative analysis of molecular crystals. <i>Journal of Applied Crystallography</i> , 2021, 54, 1006-1011.	4.5	1,744
4	<i>CrystalExplorer</i> model energies and energy frameworks: extension to metal coordination compounds, organic salts, solvates and open-shell systems. <i>IUCr</i> , 2017, 4, 575-587.	2.2	848
5	Energy frameworks: insights into interaction anisotropy and the mechanical properties of molecular crystals. <i>Chemical Communications</i> , 2015, 51, 3735-3738.	4.1	515
6	Comparing entire crystal structures: structural genetic fingerprinting. <i>CrystEngComm</i> , 2007, 9, 648.	2.6	486
7	Visualisation and characterisation of voids in crystalline materials. <i>CrystEngComm</i> , 2011, 13, 1804-1813.	2.6	397
8	Accurate and Efficient Model Energies for Exploring Intermolecular Interactions in Molecular Crystals. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 4249-4255.	4.6	380
9	Ab initio calculation of anharmonic constants for a transition state, with application to semiclassical transition state tunneling probabilities. <i>Chemical Physics Letters</i> , 1990, 172, 62-68.	2.6	221
10	Hydrogen atoms can be located accurately and precisely by x-ray crystallography. <i>Science Advances</i> , 2016, 2, e1600192.	10.3	211
11	Hirshfeld atom refinement. <i>IUCr</i> , 2014, 1, 361-379.	2.2	200
12	Open-shell coupled-cluster theory. <i>Journal of Chemical Physics</i> , 1993, 98, 9734-9747.	3.0	182
13	Wavefunctions derived from experiment. I. Motivation and theory. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2001, 57, 76-86.	0.3	178
14	X-ray structure refinement using aspherical atomic density functions obtained from quantum-mechanical calculations. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, 383-393.	0.3	172
15	Accurate Lattice Energies for Molecular Crystals from Experimental Crystal Structures. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 1614-1623.	5.3	164
16	Higher analytic derivatives. IV. Anharmonic effects in the benzene spectrum. <i>Journal of Chemical Physics</i> , 1992, 97, 4233-4254.	3.0	150
17	An open-shell restricted Hartree-Fock perturbation theory based on symmetric spin orbitals. <i>Chemical Physics Letters</i> , 1993, 201, 1-10.	2.6	150
18	Accurate crystal structures and chemical properties from NoSpherA2. <i>Chemical Science</i> , 2021, 12, 1675-1692.	7.4	147

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19	Electrostatic potentials mapped on Hirshfeld surfaces provide direct insight into intermolecular interactions in crystals. <i>CrystEngComm</i> , 2008, , .	2.6	133
20	Anharmonic corrections to vibrational transition intensities. <i>The Journal of Physical Chemistry</i> , 1990, 94, 5608-5616.	2.9	132
21	Wave Function for Beryllium from X-Ray Diffraction Data. <i>Physical Review Letters</i> , 1998, 80, 798-801.	7.8	131
22	Intermolecular interactions in molecular crystals: whatâ€™s in a name?. <i>Faraday Discussions</i> , 2017, 203, 93-112.	3.2	121
23	Tonto: A Fortran Based Object-Oriented System for Quantum Chemistry and Crystallography. <i>Lecture Notes in Computer Science</i> , 2003, , 142-151.	1.3	119
24	Anharmonic vibrational properties of CH <sub>2</sub> F <sub>2</sub> : A comparison of theory and experiment. <i>Journal of Chemical Physics</i> , 1991, 95, 8323-8336.	3.0	115
25	Quantum Crystallography: Current Developments and Future Perspectives. <i>Chemistry - A European Journal</i> , 2018, 24, 10881-10905.	3.3	108
26	The Elusive Structural Origin of Plastic Bending in Dimethyl Sulfone Crystals with Quasiâ€isotropic Crystal Packing. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8468-8472.	13.8	104
27	The prediction of spectroscopic properties from quartic correlated force fields: HCCF, HFCO, SiH <sub>3</sub> . <i>Journal of Chemical Physics</i> , 1990, 93, 4965-4981.	3.0	101
28	The Predominant Role of Coordination Number in Potassium Channel Selectivity. <i>Biophysical Journal</i> , 2007, 93, 2635-2643.	0.5	101
29	The Significance of Ionic Bonding in Sulfur Dioxide: Bond Orders from Xâ€ray Diffraction Data. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6776-6779.	13.8	99
30	Openâ€shell restricted Hartreeâ€Fock perturbation theory: Some considerations and comparisons. <i>Journal of Chemical Physics</i> , 1994, 100, 7400-7409.	3.0	92
31	Spin contamination in single-determinant wavefunctions. <i>Chemical Physics Letters</i> , 1991, 183, 423-431.	2.6	91
32	Wavefunctions derived from experiment. II. A wavefunction for oxalic acid dihydrate. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2001, 57, 87-100.	0.3	89
33	A Flexible Approach to the Calculation of Resonance Energy Transfer Efficiency between Multiple Donors and Acceptors in Complex Geometries. <i>Biophysical Journal</i> , 2005, 89, 3822-3836.	0.5	83
34	Electron spin resonance g tensors from general Hartreeâ€Fock calculations. <i>Journal of Chemical Physics</i> , 1998, 108, 7587-7594.	3.0	77
35	Sâ€O chalcogen bonding in sulfa drugs: insights from multipole charge density and X-ray wavefunction of acetazolamide. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25411-25420.	2.8	74
36	Probing the accuracy and precision of Hirshfeld atom refinement with <i>HART</i> interfaced with <i>Olex2</i> . <i>IUCr</i> , 2018, 5, 32-44.	2.2	74

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37	Electronic hydrogen storage properties of defect-engineered $\text{C}_4\text{N}_4$ nanotubes. <i>Nanotechnology</i> , 2008, 19, 425701. <a href="http://www.w3.org/1998/Math/MathML">http://www.w3.org/1998/Math/MathML</a> altimg="si1.svg" <math>C_4</math> nanotubes under ambient conditions.	10.3	69
38	Wave functions derived from experiment. V. Investigation of electron densities, electrostatic potentials, and electron localization functions for noncentrosymmetric crystals. <i>Journal of Computational Chemistry</i> , 2003, 24, 470-483.	3.3	59
39	Hirshfeld atom refinement for modelling strong hydrogen bonds. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2014, 70, 483-498.	0.1	59
40	Importance of Relativistic Effects and Electron Correlation in Structure Factors and Electron Density of Diphenyl Mercury and Triphenyl Bismuth. <i>Journal of Physical Chemistry A</i> , 2016, 120, 6650-6669.	2.5	57
41	Higher analytic derivatives. II. The fourth derivative of self-consistent field energy. <i>Journal of Chemical Physics</i> , 1991, 95, 7409-7417.	3.0	55
42	Wavefunctions derived from experiment. IV. Investigation of the crystal environment of ammonia. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2002, 58, 244-251.	0.3	55
43	Wavefunctions derived from experiment. III. Topological analysis of crystal fragments. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2002, 58, 232-243.	0.3	51
44	Determination of the Orientational Distribution and Orientation Factor for Transfer between Membrane-Bound Fluorophores using a Confocal Microscope. <i>Biophysical Journal</i> , 2006, 91, 1032-1045.	0.5	50
45	Structural Investigation of MscL Gating Using Experimental Data and Coarse Grained MD Simulations. <i>PLoS Computational Biology</i> , 2012, 8, e1002683.	3.2	50
46	Basis set convergence of CCSD(T) equilibrium geometries using a large and diverse set of molecular structures. <i>Journal of Chemical Physics</i> , 2016, 145, 104101.	3.0	50
47	Ab initio prediction of fundamental, overtone and combination band infrared intensities. <i>Chemical Physics Letters</i> , 1990, 169, 127-137.	2.6	49
48	Validation of X-ray Wavefunction Refinement. <i>ChemPhysChem</i> , 2017, 18, 3334-3351.	2.1	49
49	Effective molecular polarizabilities and crystal refractive indices estimated from x-ray diffraction data. <i>Journal of Chemical Physics</i> , 2006, 125, 174505.	3.0	48
50	Some fundamental problems with zero flux partitioning of electron densities. <i>Theoretical Chemistry Accounts</i> , 2001, 105, 213-218.	1.4	46
51	Electron localization functions obtained from X-ray constrained Hartree-Fock wavefunctions for molecular crystals of ammonia, urea and alloxan. Work presented at the Microsymposium on Quantum Crystallography, XIX IUCr Congress, Geneva, Switzerland, August 2002.. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2004, 60, 111-119.	0.3	46
52	The form of spin orbitals for open-shell restricted Hartree-Fock reference functions. <i>Chemical Physics Letters</i> , 1992, 199, 211-219.	2.6	44
53	X-ray constrained unrestricted Hartree-Fock and Douglas-Kroll-Hess wavefunctions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, 78-92.	0.3	44
54	Higher analytic derivatives. I. A new implementation for the third derivative of the SCF energy. <i>International Journal of Quantum Chemistry</i> , 1991, 40, 179-199.	2.0	43

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55	The use of dipole lattice sums to estimate electric fields and dipole moment enhancement in molecular crystals. <i>Chemical Physics Letters</i> , 2007, 443, 87-91.	2.6	42
56	Refractive indices for molecular crystals from the response of X-ray constrained Hartree-Fock wavefunctions. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7209.	2.8	41
57	Covalency and Ionicity Do Not Oppose Each Other's Relationship Between Si-O Bond Character and Basicity of Siloxanes. <i>Chemistry - A European Journal</i> , 2018, 24, 15275-15286.	3.3	40
58	Simulation of Structure, Orientation, and Energy Transfer between AlexaFluor Molecules Attached to MscL. <i>Biophysical Journal</i> , 2008, 95, 2711-2721.	0.5	39
59	Metal functionalized inorganic nano-sheets as promising materials for clean energy storage. <i>Applied Surface Science</i> , 2019, 471, 887-892.	6.1	39
60	Crystal-field effects in L-homoserine: multipoles versus quantum chemistry. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2012, 68, 435-442.	0.3	36
61	Measurement of Electric Fields Experienced by Urea Guest Molecules in the 18-Crown-6/Urea (1:5) Host-Guest Complex: An Experimental Reference Point for Electric-Field-Assisted Catalysis. <i>Journal of the American Chemical Society</i> , 2019, 141, 3965-3976.	13.7	35
62	Bond Length and Local Energy Density Property Connections for Non-Transition-Metal Oxide-Bonded Interactions. <i>Journal of Physical Chemistry A</i> , 2006, 110, 12259-12266.	2.5	33
63	A Variety of Bond Analysis Methods, One Answer? An Investigation of the Element's Oxygen Bond of Hydroxides $H_nXOH$ . <i>Chemistry - A European Journal</i> , 2018, 24, 6248-6261.	3.3	33
64	Higher analytic derivatives. <i>Molecular Physics</i> , 1992, 75, 271-291.	1.7	31
65	The Electron Localizability Indicator from X-ray Diffraction Data: A First Application to a Series of Epoxide Derivatives. <i>Chemistry - A European Journal</i> , 2010, 16, 12818-12821.	3.3	31
66	A definition for the covalent and ionic bond index in a molecule. <i>Theoretical Chemistry Accounts</i> , 2008, 119, 275-290.	1.4	30
67	Modeling electron density distributions from X-ray diffraction to derive optical properties: Constrained wavefunction versus multipole refinement. <i>Journal of Chemical Physics</i> , 2013, 139, 064108.	3.0	30
68	The Elusive Structural Origin of Plastic Bending in Dimethyl Sulfone Crystals with Quasi-Isotropic Crystal Packing. <i>Angewandte Chemie</i> , 2017, 129, 8588-8592.	2.0	29
69	A comparison of electron density from Hirshfeld-atom refinement, X-ray wavefunction refinement and multipole refinement on three urea derivatives. <i>CrystEngComm</i> , 2013, 15, 2084.	2.6	28
70	High Throughput Profiling of Molecular Shapes in Crystals. <i>Scientific Reports</i> , 2016, 6, 22204.	3.3	26
71	Bridging Crystal Engineering and Drug Discovery by Utilizing Intermolecular Interactions and Molecular Shapes in Crystals. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16780-16784.	13.8	26
72	Reactivity Differences between $\alpha,\beta$ -Unsaturated Carbonyls and Hydrazones Investigated by Experimental and Theoretical Electron Density and Electron Localizability Analyses. <i>Journal of Physical Chemistry A</i> , 2011, 115, 12715-12732.	2.5	25

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73	Bond orders for intermolecular interactions in crystals: charge transfer, ionicity and the effect on intramolecular bonds. <i>IUCr</i> , 2018, 5, 635-646.	2.2	25
74	Hydrogen atoms in bridging positions from quantum crystallographic refinements: influence of hydrogen atom displacement parameters on geometry and electron density. <i>CrystEngComm</i> , 2020, 22, 4778-4789.	2.6	25
75	A challenge for density functional theory: the XONO and XNO <sub>2</sub> (X=F, Cl, and Br) molecules. <i>Theoretical Chemistry Accounts</i> , 1997, 97, 185-194.	1.4	24
76	Fourier transforms of property densities with Gaussian functions. <i>Chemical Physics Letters</i> , 1994, 230, 228-230.	2.6	23
77	Relativistic quantum crystallography of diphenyl- and dicyanomercuro. Theoretical structure factors and Hirshfeld atom refinement. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 705-717.	0.1	23
78	On the accuracy and precision of X-ray and neutron diffraction results as a function of resolution and the electron density model. <i>IUCr</i> , 2020, 7, 920-933.	2.2	23
79	Post-Hartree-Fock methods for Hirshfeld atom refinement: are they necessary? Investigation of a strongly hydrogen-bonded molecular crystal. <i>Journal of Molecular Structure</i> , 2020, 1209, 127934.	3.6	22
80	Intermolecular Interactions and Electrostatic Properties of the $\hat{I}^2$ -Hydroquinone Apohost: Implications for Supramolecular Chemistry. <i>Journal of Physical Chemistry A</i> , 2011, 115, 12962-12972.	2.5	21
81	Testing the use of molecular dynamics to simulate fluorophore motions and FRET. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11045.	2.8	20
82	Mapping the Importance of Four Factors in Creating Monovalent Ion Selectivity in Biological Molecules. <i>Biophysical Journal</i> , 2011, 100, 60-69.	0.5	19
83	Reliable Measurements of Dipole Moments from Single-Crystal Diffraction Data and Assessment of an In-Crystal Enhancement. <i>Structure and Bonding</i> , 2012, , 27-45.	1.0	18
84	Predicting the Position of the Hydrogen Atom in the Short Intramolecular Hydrogen Bond of the Hydrogen Maleate Anion from Geometric Correlations. <i>Crystal Growth and Design</i> , 2017, 17, 3812-3825.	3.0	18
85	Comparison of semiempirical and ab initio QM decomposition analyses for the interaction energy between molecules. <i>Chemical Physics Letters</i> , 2002, 352, 245-251.	2.6	17
86	ExiFRET: flexible tool for understanding FRET in complex geometries. <i>Journal of Biomedical Optics</i> , 2012, 17, 011005.	2.6	17
87	Linear MgCp* <sub>2</sub> vs Bent CaCp* <sub>2</sub> : London Dispersion, Ligand-Induced Charge Localizations, and Pseudo-Pregostic C <sup>+</sup> H <sup>-</sup> Ca Interactions. <i>Inorganic Chemistry</i> , 2018, 57, 4906-4920.	4.0	17
88	The Advent of Quantum Crystallography: Form and Structure Factors from Quantum Mechanics for Advanced Structure Refinement and Wavefunction Fitting. <i>Structure and Bonding</i> , 2020, , 65-144.	1.0	17
89	A problematic issue for atoms in molecules: Impact of (quasi-)degenerate states on Quantum Theory Atoms in Molecules and Hirshfeld-I properties. <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 106-111.	2.5	15
90	Si <sup>+</sup> O Bonded Interactions in Silicate Crystals and Molecules: A Comparison. <i>Journal of Physical Chemistry A</i> , 2006, 110, 12678-12683.	2.5	14

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91	Picture change error correction of radon atom electron density. <i>Journal of Chemical Physics</i> , 2010, 133, 174125.	3.0	14
92	Study of the picture change error at the 2nd order Douglas Kroll Hess level of theory. Electron and spin density and structure factors of the Bis[bis(methoxycarbimido) aminato] copper (II) complex. <i>Chemical Physics</i> , 2012, 395, 44-53.	1.9	14
93	Picture change error in quasirelativistic electron/spin density, Laplacian and bond critical points. <i>Chemical Physics</i> , 2014, 438, 37-47.	1.9	14
94	An ab initio calculation of magnetic structure factors for Cs <sub>3</sub> CoCl <sub>5</sub> including spin-orbit and finite magnetic field effects. <i>Journal of Chemical Physics</i> , 1995, 103, 4562-4571.	3.0	13
95	Are intramolecular dynamic electron correlation effects detectable in X-ray diffraction experiments on molecular crystals?. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2007, 63, 135-145.	0.3	13
96	Revised electrostatics from invariom refinement of the 18-residue peptaibol antibiotic trichotoxin A50E. <i>CrystEngComm</i> , 2010, 12, 2419.	2.6	12
97	An Entropic Mechanism of Generating Selective Ion Binding in Macromolecules. <i>PLoS Computational Biology</i> , 2013, 9, e1002914.	3.2	12
98	Predicting the primary fragments in mass spectrometry using <i>ab initio</i> Roby-Gould bond indices. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25603.	2.0	12
99	Cyclopropa-Fused Quinones. The Generation and Trapping of Bicyclo[4.1.0]hepta-1(6),3-diene-2,5-dione and 1H-Cyclopropa[b]naphthalene-2,7-dione. <i>Australian Journal of Chemistry</i> , 1997, 50, 505.	0.9	12
100	Analytic second derivatives with model potentials at SCF and MP2 levels. <i>Chemical Physics Letters</i> , 1989, 163, 151-156.	2.6	11
101	A complement to "Some fundamental problems with zero flux partitioning of electron densities". <i>Theoretical Chemistry Accounts</i> , 2002, 107, 383-384.	1.4	11
102	Picture change error correction in the radial distributions of canonical orbital densities and total electron density of radon atom: the effect of the size of nucleus and the basis set limit. <i>Theoretical Chemistry Accounts</i> , 2011, 129, 181-197.	1.4	11
103	Can Experimental Electron-Density Studies be Used as a Tool to Predict Biologically Relevant Properties of Low-Molecular Weight Enzyme Ligands?. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2013, 639, 1905-1921.	1.2	11
104	Quantum chemical electron impact mass spectrum prediction for de novo structure elucidation: Assessment against experimental reference data and comparison to competitive fragmentation modeling. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25460.	2.0	11
105	The advanced treatment of hydrogen bonding in quantum crystallography. <i>Journal of Applied Crystallography</i> , 2021, 54, 718-729.	4.5	11
106	Solid-State Dilution of Dihydroxybenzophenones with 4,13-Diaza-18-crown-6 for Photocrystallographic Studies. <i>Crystal Growth and Design</i> , 2012, 12, 2277-2287.	3.0	10
107	Spin contamination analogy, Kramers pairs symmetry and spin density representations at the 2-component unrestricted Hartree-Fock level of theory. <i>Computational and Theoretical Chemistry</i> , 2015, 1065, 27-41.	2.5	10
108	Electrostatic complementarity in pseudoreceptor modeling based on drug molecule crystal structures: the case of loxistatin acid (E64c). <i>New Journal of Chemistry</i> , 2015, 39, 1628-1633.	2.8	10



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109	Similarities and Differences between Crystal and Enzyme Environmental Effects on the Electron Density of Drug Molecules. <i>Chemistry - A European Journal</i> , 2021, 27, 3407-3419.	3.3	10
110	fragHAR: towards <i>ab initio</i> quantum-crystallographic X-ray structure refinement for polypeptides and proteins. <i>IUCr</i> , 2020, 7, 158-165.	2.2	10
111	X-ray constrained wavefunctions based on Hirshfeld atoms. I. Method and review. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2022, 78, 312-332.	1.1	10
112	X-ray constrained wavefunctions based on Hirshfeld atoms. II. Reproducibility of electron densities in crystals of $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ . <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2022, 78, 397-415.	1.1	9
113	Investigating the Resonance in Nitric Acid and the Nitrate Anion Based on a Modern Bonding Analysis. <i>Australian Journal of Chemistry</i> , 2018, 71, 227.	0.9	8
114	Bridging Crystal Engineering and Drug Discovery by Utilizing Intermolecular Interactions and Molecular Shapes in Crystals. <i>Angewandte Chemie</i> , 2019, 131, 16936-16940.	2.0	8
115	Implications of unitary invariance for gradient theory. <i>International Journal of Quantum Chemistry</i> , 1992, 42, 445-458.	2.0	6
116	A theoretical study of the polarized neutron scattering from $\text{Cs}_3\text{CoCl}_5$ . <i>Journal of Chemical Physics</i> , 2001, 114, 2687-2697.	3.0	6
117	How does overcoordination create ion selectivity?. <i>Biophysical Chemistry</i> , 2013, 172, 37-42.	2.8	6
118	Spatial symmetry and equivalence with unrestricted Hartree-Fock wavefunctions: application to the prediction of spin densities. <i>Molecular Physics</i> , 1997, 92, 471-476.	1.7	6
119	<i>Ab initio</i> study of the cyclic isomers of $\text{N}_2\text{S}_4$ . <i>Chemical Physics</i> , 1995, 198, 169-181.	1.9	4
120	The quasirelativistic contact interaction and effective electron and spin densities at the nucleus: A model based on weighting the electron density with the finite Gaussian nucleus model. <i>Chemical Physics Letters</i> , 2013, 580, 152-159.	2.6	4
121	Is it Reasonable to Obtain Information on the Polarizability and Hyperpolarizability Only from the Electron Density?. <i>Australian Journal of Chemistry</i> , 2018, 71, 295.	0.9	4
122	$\text{HgH}_2$ meets relativistic quantum crystallography. How to teach relativity to a non-relativistic wavefunction. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2021, 77, 54-66.	0.1	4
123	Contributions of the electronic spin and orbital current to the $\text{CoCl}_4^{2-}$ magnetic field probed in polarised neutron diffraction experiments. <i>Journal of Chemical Physics</i> , 2012, 137, 064107.	3.0	3
124	Glycyl-L-alanine: a multi-temperature neutron study. <i>Acta Crystallographica Section C, Structural Chemistry</i> , 2014, 70, 949-952.	0.5	3
125	Analytic SCF third and fourth derivatives with model potentials. <i>Chemical Physics Letters</i> , 1993, 212, 18-26.	2.6	2
126	Comment on <i>Inter/Intramolecular Bonds in <math>\text{TH}_5^+ \text{X}^-</math> (<math>\text{T} = \text{C/Si/Ge}</math>): <math>\text{H}_2</math> as Tetrel Bond Acceptor and the Uniqueness of Carbon Bonds</i> . <i>Journal of Physical Chemistry A</i> , 2019, 123, 9242-9243.	2.5	2



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127	Roby-Gould bond indices as a tool for understanding chemical bonding from a mathematical and quantum mechanical perspective. Results in Chemistry, 2020, 2, 100053.	2.0	2
128	Quantitative approaches to crystal engineering: applications to mechanical properties. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C849-C849.	0.1	2
129	Using Wavefunctions to Get More Information Out of Diffraction Experiments. , 2011, , 213-257.		1
130	A Model of the Open Pore MscL Based on Experimental Data and Restrained Coarse Grained Simulations. Biophysical Journal, 2012, 102, 121a-122a.	0.5	1
131	Structure Factors and Charge Density Description of Aluminum: A Quantum Crystallographic Study. Journal of Physical Chemistry A, 2022, 126, 2042-2049.	2.5	1
132	Mapping the Common Origins of Ion Selectivity in Biological Molecules. Biophysical Journal, 2009, 96, 660a-661a.	0.5	0
133	Determination of Fluorophore Orientation and Energy Transfer from MD Simulations. Biophysical Journal, 2010, 98, 582a.	0.5	0
134	Interpreting FRET in Complex Geometries. Biophysical Journal, 2010, 98, 584a.	0.5	0
135	Mapping the Importance of 4 factors in Creating Monovalent Ion Selectivity in Biological Molecules. Biophysical Journal, 2011, 100, 578a.	0.5	0
136	X-ray wavefunction refinement " introduction, examples, validation. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s589-s589.	0.3	0
137	Hirshfeld atom refinement for determining hydrogen positions in routine X-ray experiments. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s107-s107.	0.1	0
138	A technique for the comparison and analysis of decorated molecular surfaces. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s474-s475.	0.1	0
139	Quantum mechanical synthon interaction energies. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C682-C682.	0.1	0
140	Applications of X-ray Wavefunction Refinement. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1343-C1343.	0.1	0
141	Hydrogen maleate salts: precise and accurate determination of the hydrogen atom position in short hydrogen bonds using X-ray diffraction at extremely low temperatures. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s89-s89.	0.1	0
142	Precision and accuracy of single-crystal X-ray results. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1388-C1388.	0.1	0
143	Wavefunction refinement-derived spin density of two cAAC-SiCl <sub>3</sub> polymorphs. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C571-C571.	0.1	0
144	Introducing iterative X-ray wavefunction refinement. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C702-C702.	0.1	0

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145	Quantum crystallography towards 'quantitative crystal engineering'. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e78-e78.	0.1	0