

# Angel MartÃ- n PendÃ;s

## List of Publications by Year in descending order

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208  
papers

9,084  
citations

50170

46  
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46693

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227  
all docs

227  
docs citations

227  
times ranked

4511  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interacting Quantum Atoms: A Correlated Energy Decomposition Scheme Based on the Quantum Theory of Atoms in Molecules. <i>Journal of Chemical Theory and Computation</i> , 2005, 1, 1096-1109.	2.3	632
2	Thermodynamical properties of solids from microscopic theory: applications to MgF <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> . <i>Computational and Theoretical Chemistry</i> , 1996, 368, 245-255.	1.5	523
3	First-principles study of the rocksalt cesium chloride relative phase stability in alkali halides. <i>Physical Review B</i> , 2002, 66, .	1.1	484
4	Quantum-Mechanical Study of Thermodynamic and Bonding Properties of MgF <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 1998, 102, 1595-1601.	1.1	410
5	Critic: a new program for the topological analysis of solid-state electron densities. <i>Computer Physics Communications</i> , 2009, 180, 157-166.	3.0	307
6	Bond Paths as Privileged Exchange Channels. <i>Chemistry - A European Journal</i> , 2007, 13, 9362-9371.	1.7	297
7	A Molecular Energy Decomposition Scheme for Atoms in Molecules. <i>Journal of Chemical Theory and Computation</i> , 2006, 2, 90-102.	2.3	271
8	The nature of the hydrogen bond: A synthesis from the interacting quantum atoms picture. <i>Journal of Chemical Physics</i> , 2006, 125, 184112.	1.2	208
9	A Classification of Covalent, Ionic, and Metallic Solids Based on the Electron Density. <i>Journal of the American Chemical Society</i> , 2002, 124, 14721-14723.	6.6	160
10	Two-electron integrations in the quantum theory of atoms in molecules. <i>Journal of Chemical Physics</i> , 2004, 120, 4581-4592.	1.2	157
11	Non-nuclear Maxima of the Electron Density. <i>Physical Review Letters</i> , 1999, 83, 1930-1933.	2.9	155
12	Extension of the interacting quantum atoms (IQA) approach to B3LYP level density functional theory (DFT). <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20986-21000.	1.3	140
13	Chemical fragments in real space: Definitions, properties, and energetic decompositions. <i>Journal of Computational Chemistry</i> , 2007, 28, 161-184.	1.5	138
14	Local compressibilities in crystals. <i>Physical Review B</i> , 2000, 62, 13970-13978.	1.1	130
15	Ions in crystals: The topology of the electron density in ionic materials. I. Fundamentals. <i>Physical Review B</i> , 1997, 55, 4275-4284.	1.1	125
16	Revitalizing the concept of bond order through delocalization measures in real space. <i>Chemical Science</i> , 2018, 9, 5517-5529.	3.7	114
17	Nine questions on energy decomposition analysis. <i>Journal of Computational Chemistry</i> , 2019, 40, 2248-2283.	1.5	113
18	Ions in crystals: The topology of the electron density in ionic materials.II. The cubic alkali halide perovskites. <i>Physical Review B</i> , 1997, 55, 4285-4297.	1.1	110

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19	Hydrogen bond cooperativity and anticooperativity within the water hexamer. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 19557-19566.	1.3	106
20	Ions in Crystals: The Topology of the Electron Density in Ionic Materials. III. Geometry and Ionic Radii. <i>Journal of Physical Chemistry B</i> , 1998, 102, 6937-6948.	1.2	100
21	Bonding between strongly repulsive metal atoms: an oxymoron made real in a confined space of endohedral metallofullerenes. <i>Chemical Communications</i> , 2012, 48, 8031.	2.2	99
22	Six questions on topology in theoretical chemistry. <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 2-16.	1.1	99
23	Theoretical explanation of the uniform compressibility behavior observed in oxide spinels. <i>Physical Review B</i> , 2001, 63, .	1.1	96
24	Two-electron integrations in the Quantum Theory of Atoms in Molecules with correlated wave functions. <i>Journal of Computational Chemistry</i> , 2005, 26, 344-351.	1.5	92
25	Binding Energies of First Row Diatomics in the Light of the Interacting Quantum Atoms Approach. <i>Journal of Physical Chemistry A</i> , 2006, 110, 12864-12869.	1.1	91
26	Domain-Averaged Exchange-Correlation Energies as a Physical Underpinning for Chemical Graphs. <i>ChemPhysChem</i> , 2013, 14, 1211-1218.	1.0	89
27	Pressure-induced B1-B2 phase transition in alkali halides: General aspects from first-principles calculations. <i>Physical Review B</i> , 1994, 49, 3066-3074.	1.1	82
28	Bonding in Classical and Nonclassical Transition Metal Carbonyls: The Interacting Quantum Atoms Perspective. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 1064-1074.	2.3	80
29	Hydrogen-Bond Cooperative Effects in Small Cyclic Water Clusters as Revealed by the Interacting Quantum Atoms Approach. <i>Chemistry - A European Journal</i> , 2013, 19, 14304-14315.	1.7	80
30	Steric repulsions, rotation barriers, and stereoelectronic effects: A real space perspective. <i>Journal of Computational Chemistry</i> , 2009, 30, 98-109.	1.5	78
31	Chemical Bonding in Group III Nitrides. <i>Journal of the American Chemical Society</i> , 2002, 124, 4116-4123.	6.6	75
32	Rigorous characterization of oxygen vacancies in ionic oxides. <i>Physical Review B</i> , 2002, 66, .	1.1	75
33	Dative and Electron-Sharing Bonding in $C_2F_4$ . <i>Chemistry - A European Journal</i> , 2018, 24, 9083-9089.	1.7	73
34	Electron number probability distributions for correlated wave functions. <i>Journal of Chemical Physics</i> , 2007, 126, 094102.	1.2	69
35	Quantum-mechanical analysis of the equation of state of anatase $TiO_2$ . <i>Physical Review B</i> , 2001, 64, .	1.1	68
36	Interacting Quantum Atoms – A Review. <i>Molecules</i> , 2020, 25, 4028.	1.7	67

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37	The nature of resonance-assisted hydrogen bonds: a quantum chemical topology perspective. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26383-26390.	1.3	64
38	An electron number distribution view of chemical bonds in real space. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 1087-1092.	1.3	59
39	The Ehrenfest force field: Topology and consequences for the definition of an atom in a molecule. <i>Journal of Chemical Physics</i> , 2012, 137, 134101.	1.2	59
40	Topological Analysis of Chemical Bonding in Cyclophosphazenes. <i>Journal of Physical Chemistry A</i> , 2001, 105, 5280-5291.	1.1	57
41	Generalized Huzinaga building-block equations for nonorthogonal electronic groups: Relation to the Adams-Gilbert theory. <i>Journal of Chemical Physics</i> , 1992, 97, 6504-6508.	1.2	54
42	Non-nuclear maxima of the electron density on alkaline metals. <i>Journal of Chemical Physics</i> , 2003, 119, 6341-6350.	1.2	54
43	Stress, virial, and pressure in the theory of atoms in molecules. <i>Journal of Chemical Physics</i> , 2002, 117, 965-979.	1.2	51
44	Bond metallicity of materials from real space charge density distributions. <i>Chemical Physics Letters</i> , 2009, 471, 174-177.	1.2	51
45	Nature of Chemical Interactions from the Profiles of Electron Delocalization Indices. <i>Journal of Chemical Theory and Computation</i> , 2011, 7, 1704-1711.	2.3	51
46	Partitioning the DFT exchange-correlation energy in line with the interacting quantum atoms approach. <i>Theoretical Chemistry Accounts</i> , 2016, 135, 1.	0.5	50
47	Low- and high-pressure ab initio equations of state for the alkali chlorides. <i>Physical Review B</i> , 1993, 48, 5891-5901.	1.1	47
48	First Principles Study of Polyatomic Clusters of AlN, GaN, and InN. 2. Chemical Bonding. <i>Journal of Physical Chemistry B</i> , 2000, 104, 4368-4374.	1.2	47
49	Spin resolved electron number distribution functions: How spins couple in real space. <i>Journal of Chemical Physics</i> , 2007, 127, 144103.	1.2	47
50	One-electron images in real space: Natural adaptive orbitals. <i>Journal of Computational Chemistry</i> , 2015, 36, 833-843.	1.5	46
51	Quantum mechanical cluster calculations of ionic materials: the ab initio perturbed ion (version 7) program. <i>Computer Physics Communications</i> , 1993, 77, 107-134.	3.0	43
52	Pauling Resonant Structures in Real Space through Electron Number Probability Distributions. <i>Journal of Physical Chemistry A</i> , 2007, 111, 1084-1090.	1.1	43
53	EDF: Computing electron number probability distribution functions in real space from molecular wave functions. <i>Computer Physics Communications</i> , 2008, 178, 621-634.	3.0	43
54	Hirshfeld surfaces as approximations to interatomic surfaces. <i>Journal of Chemical Physics</i> , 2002, 117, 1017-1023.	1.2	41

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55	Evolution of the Properties of Al <sub>n</sub> N <sub>n</sub> Clusters with Size. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24352-24360.	1.2	40
56	Charge transfer, chemical potentials, and the nature of functional groups: answers from quantum chemical topology. <i>Faraday Discussions</i> , 2007, 135, 423-438.	1.6	40
57	A multipolar approach to the interatomic covalent interaction energy. <i>Journal of Computational Chemistry</i> , 2017, 38, 816-829.	1.5	40
58	Dynamical correlation within the Interacting Quantum Atoms method through coupled cluster theory. <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 90-95.	1.1	39
59	Restoring orbital thinking from real space descriptions: bonding in classical and non-classical transition metal carbonyls. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 5068.	1.3	37
60	A hierarchy of chemical bonding indices in real space from reduced density matrices and cumulants. <i>Computational and Theoretical Chemistry</i> , 2013, 1003, 71-78.	1.1	37
61	Ions in Crystals: The Topology of the Electron Density in Ionic Materials. 4. The Danburite (CaB <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> ) Case and the Occurrence of Oxide-Oxide Bond Paths in Crystals. <i>Journal of Physical Chemistry B</i> , 2003, 107, 4912-4921.	1.2	36
62	First Principles Study of Neutral and Anionic (Medium-Size) Aluminum Nitride Clusters: Al <sub>n</sub> N <sub>n</sub> , n = 7-16. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4092-4098.	1.2	36
63	Beyond the molecular orbital conception of electronically excited states through the quantum theory of atoms in molecules. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9249-9258.	1.3	36
64	Performance of the Density Matrix Functional Theory in the Quantum Theory of Atoms in Molecules. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1237-1250.	1.1	35
65	Electron correlation in the interacting quantum atoms partition via coupled cluster lagrangian densities. <i>Journal of Computational Chemistry</i> , 2016, 37, 1753-1765.	1.5	32
66	Universal Features of the Topological Bond Properties of the Electron Density. <i>Journal of Physical Chemistry A</i> , 2004, 108, 2794-2801.	1.1	31
67	Unusual substituent effects on the bonding of iminoboranes. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 3970-3977.	1.3	31
68	Bond Order Densities in Real Space. <i>Journal of Physical Chemistry A</i> , 2020, 124, 339-352.	1.1	31
69	Electron-electron interactions between ELF basins. <i>Chemical Physics Letters</i> , 2008, 454, 396-403.	1.2	30
70	Toward Understanding the Photochemistry of Photoactive Yellow Protein: A CASPT2/CASSCF and Quantum Theory of Atoms in Molecules Combined Study of a Model Chromophore in Vacuo. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 3032-3038.	2.3	30
71	Cooperative and anticooperative effects in resonance assisted hydrogen bonds in merged structures of malondialdehyde. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 97-107.	1.3	30
72	On Electrostatics, Covalency, and Chemical Dashes: Physical Interactions versus Chemical Bonds. <i>Chemistry - A European Journal</i> , 2019, 25, 309-314.	1.7	30

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73	A connection between domain-averaged Fermi hole orbitals and electron number distribution functions in real space. <i>Journal of Chemical Physics</i> , 2009, 131, 124125.	1.2	29
74	Understanding the bifurcated halogen bonding $N\delta^-Hal\delta^+N$ in bidentate diazaheterocyclic compounds. <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 229-237.	1.1	29
75	Chemical bonding in excited states: Energy transfer and charge redistribution from a real space perspective. <i>Journal of Computational Chemistry</i> , 2017, 38, 957-970.	1.5	29
76	Polarity inversion in the electron density of BP crystal. <i>Physical Review B</i> , 2001, 63, .	1.1	28
77	Structural and chemical stability of halide perovskites. <i>Solid State Communications</i> , 1997, 104, 47-50.	0.9	27
78	Static simulations of $CaF_2$ polymorphs. <i>Physical Review B</i> , 1994, 49, 5858-5868.	1.1	26
79	How Electron Localization Function Quantifies and Pictures Chemical Changes in a Solid: The $B3\hat{+}B1$ Pressure Induced Phase Transition in BeO. <i>Journal of Physical Chemistry B</i> , 2008, 112, 9787-9794.	1.2	26
80	Computation of Local and Global Properties of the Electron Localization Function Topology in Crystals. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 164-173.	2.3	26
81	Useful applications of the electron localization function in high-pressure crystal chemistry. <i>Journal of Physics and Chemistry of Solids</i> , 2008, 69, 2204-2207.	1.9	25
82	Using Pseudopotentials within the Interacting Quantum Atoms Approach. <i>Journal of Physical Chemistry A</i> , 2009, 113, 7963-7971.	1.1	24
83	On the interpretation of domain averaged Fermi hole analyses of correlated wavefunctions. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 4586.	1.3	24
84	The bifunctional catalytic role of water clusters in the formation of acid rain. <i>Chemical Communications</i> , 2017, 53, 3516-3519.	2.2	24
85	Where Does Electron Correlation Lie? Some Answers from a Real Space Partition. <i>ChemPhysChem</i> , 2017, 18, 3553-3561.	1.0	24
86	Ab initio cluster-in-the-lattice description of vanadium-doped zircon: analysis of the impurity centers in vanadium(4+)-doped zircon ( $ZrSiO_4$ ). <i>The Journal of Physical Chemistry</i> , 1993, 97, 2555-2559.	2.9	23
87	Derivation of electron-gas interatomic potentials from quantum-mechanical descriptions of ions in crystals. <i>Physical Review B</i> , 1995, 51, 2703-2714.	1.1	23
88	Ions in crystals: The topology of the electron density in ionic materials. V. The $B1\hat{\sim}B2$ phase transition in alkali halides. <i>Physical Review B</i> , 2000, 62, 12028-12039.	1.1	23
89	A view of covalent and ionic bonding from Maximum Probability Domains. <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 142-149.	1.1	23
90	Chemical Bonding from the Statistics of the Electron Distribution. <i>ChemPhysChem</i> , 2019, 20, 2722-2741.	1.0	22

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91	Challenging the electrostatic $\sigma$ -hole picture of halogen bonding using minimal models and the interacting quantum atoms approach. <i>Journal of Computational Chemistry</i> , 2021, 42, 676-687.	1.5	22
92	Energy Partition Analyses: Symmetry-Adapted Perturbation Theory and Other Techniques. , 2017, , 27-64.		21
93	Application of the Interacting Quantum Atoms Approach to the S66 and Ionic-Hydrogen-Bond Datasets for Noncovalent Interactions. <i>ChemPhysChem</i> , 2018, 19, 973-987.	1.0	21
94	Spatial localization, correlation, and statistical dependence of electrons in atomic domains: The $\langle \mathbf{r}^{-1} \rangle$ integrals. <i>Chemical Physics Letters</i> , 2000, 320, 1-10.	1.2	20
95	An anatomy of intramolecular atomic interactions in halogen-substituted trinitromethanes. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16780-16789.	1.3	20
96	An Interacting Quantum Atoms Analysis of the Metal-Metal Bond in $[M_2(CO)_8]_n$ Systems. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2153-2160.	1.1	20
97	Hydrogen-Bond Weakening through $\pi$ Systems: Resonance-Impaired Hydrogen Bonds (RIHB). <i>Chemistry - A European Journal</i> , 2017, 23, 16605-16611.	1.7	20
98	Real-Space In Situ Bond Energies: Toward A Consistent Energetic Definition of Bond Strength. <i>Chemistry - A European Journal</i> , 2018, 24, 9101-9112.	1.7	20
99	Beryllium Bonding in the Light of Modern Quantum Chemical Topology Tools. <i>Journal of Physical Chemistry A</i> , 2018, 122, 849-858.	1.1	20
100	Real space bond orders are energetic descriptors. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 16231-16237.	1.3	20
101	Halogen Bonds in Clathrate Cages: A Real Space Perspective. <i>ChemPhysChem</i> , 2018, 19, 2512-2517.	1.0	20
102	On the strength of hydrogen bonding within water clusters on the coordination limit. <i>Journal of Computational Chemistry</i> , 2020, 41, 2266-2277.	1.5	20
103	Collective interactions among organometallics are exotic bonds hidden on lab shelves. <i>Nature Communications</i> , 2022, 13, 2069.	5.8	20
104	Universal-binding-energy relations across the rock-salt cesium chloride phase transition in alkali halides. <i>Physical Review B</i> , 1997, 56, 3010-3015.	1.1	19
105	Revisiting the variational nature of the quantum theory of atoms in molecules. <i>Chemical Physics Letters</i> , 2006, 417, 16-21.	1.2	19
106	The Nature of the Interaction of Organoselenium Molecules with Diiodine. <i>Journal of Physical Chemistry A</i> , 2011, 115, 10069-10077.	1.1	19
107	Electron number distribution functions from molecular wavefunctions. Version 2. <i>Computer Physics Communications</i> , 2014, 185, 2663-2682.	3.0	19
108	Convergence of the multipole expansion for 1,2 Coulomb interactions: The modified multipole shifting algorithm. <i>Journal of Chemical Physics</i> , 2010, 132, 194110.	1.2	18

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109	The rotational barrier of ethane and some of its hexasubstituted derivatives in terms of the forces acting on the electron distribution. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19021-19029.	1.3	17
110	Fermi and Coulomb correlation effects upon the interacting quantum atoms energy partition. <i>Theoretical Chemistry Accounts</i> , 2016, 135, 1.	0.5	17
111	Partition of electronic excitation energies: the IQA/EOM-CCSD method. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 13428-13439.	1.3	17
112	Energetic Descriptors of Steric Hindrance in Real Space: An Improved IQA Picture**. <i>ChemPhysChem</i> , 2021, 22, 775-787.	1.0	17
113	Microscopic analysis of the compressibility in the spinel phase of Si <sub>3</sub> N <sub>4</sub> . <i>Europhysics Letters</i> , 2001, 54, 760-766.	0.7	16
114	Comparison of Direct and Flow Integration Based Charge Density Population Analyses. <i>Journal of Physical Chemistry A</i> , 2007, 111, 12146-12151.	1.1	16
115	An unexpected bridge between chemical bonding indicators and electrical conductivity through the localization tensor. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 1790-1797.	1.3	16
116	A chemical theory of topological insulators. <i>Chemical Communications</i> , 2019, 55, 12281-12287.	2.2	16
117	Quantum Chemical Topology as a Theory of Open Quantum Systems. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 1079-1088.	2.3	16
118	Efficient implementation of the interacting quantum atoms energy partition of the second-order Møller-Plesset energy. <i>Journal of Computational Chemistry</i> , 2020, 41, 1234-1241.	1.5	16
119	On the Relationship between Hydrogen Bond Strength and the Formation Energy in Resonance-Assisted Hydrogen Bonds. <i>Molecules</i> , 2021, 26, 4196.	1.7	16
120	Anti-ohmic single molecule electron transport: is it feasible?. <i>Nanoscale Advances</i> , 2019, 1, 1901-1913.	2.2	15
121	Structure and Bonding in Magnesium Difluoride Clusters: The (MgF <sub>2</sub> ) <sub>n</sub> (n = 2-3) Clusters. <i>Journal of Physical Chemistry A</i> , 2002, 106, 335-344.	1.1	14
122	Global optimization of ionic Mg <sub>n</sub> F <sub>2n</sub> (n = 1-30) clusters. <i>Journal of Chemical Physics</i> , 2005, 123, 234305.	1.2	14
123	Decay Rate of Correlated Real-Space Delocalization Measures: Insights into Chemical Bonding and Mott Transitions from Hydrogen Chains. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 3053-3062.	2.3	14
124	Decay rate of real space delocalization measures: a comparison between analytical and test systems. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 11772-11780.	1.3	14
125	Decoding real space bonding descriptors in valence bond language. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 12368-12372.	1.3	14
126	Overlap, effective-potential, and projection-operator bicentric integrals over complex Slater-type orbitals. <i>Physical Review A</i> , 1991, 43, 3384-3391.	1.0	13



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127	Bases for Understanding Polymerization under Pressure: The Practical Case of CO <sub>2</sub> . Journal of Physical Chemistry B, 2009, 113, 1068-1073.	1.2	13
128	Assessing the Reversed Exponential Decay of the Electrical Conductance in Molecular Wires: The Undeniable Effect of Static Electron Correlation. Nano Letters, 2019, 19, 7394-7399.	4.5	13
129	Fluorine conformational effects characterized by energy decomposition analysis. Physical Chemistry Chemical Physics, 2019, 21, 25258-25275.	1.3	13
130	Directing the Crystal Packing in Triphenylphosphine Gold(I) Thiolates by Ligand Fluorination. Inorganic Chemistry, 2020, 59, 8667-8677.	1.9	13
131	Ab initio pair potentials from quantum-mechanical atoms-in-crystals calculations. Journal of Physics Condensed Matter, 1993, 5, 4975-4988.	0.7	12
132	Generalized electron number distribution functions: real space versus orbital space descriptions. Theoretical Chemistry Accounts, 2011, 128, 433-444.	0.5	12
133	Quantitative Electron Delocalization in Solids from Maximally Localized Wannier Functions. Journal of Chemical Theory and Computation, 2018, 14, 4699-4710.	2.3	12
134	Structure and Bonding in Magnesium Difluoride Clusters: The MgF <sub>2</sub> Molecule. Journal of Physical Chemistry A, 2001, 105, 4126-4135.	1.1	11
135	Chemical Interactions and Spin Structure in (O <sub>2</sub> ) <sub>4</sub> : Implications for the $\mu$ -O <sub>2</sub> Phase. Journal of Chemical Theory and Computation, 2013, 9, 2179-2188.	2.3	11
136	A first step towards quantum energy potentials of electron pairs. Physical Chemistry Chemical Physics, 2019, 21, 4215-4223.	1.3	11
137	Laplacian of the Hamiltonian Kinetic Energy Density as an Indicator of Binding and Weak Interactions. ChemPhysChem, 2020, 21, 194-203.	1.0	11
138	Exotic Bonding Regimes Uncovered in Excited States. Chemistry - A European Journal, 2019, 25, 12169-12179.	1.7	10
139	Tetrel Interactions from an Interacting Quantum Atoms Perspective. Molecules, 2019, 24, 2204.	1.7	10
140	Local spin and open quantum systems: clarifying misconceptions, unifying approaches. Physical Chemistry Chemical Physics, 2021, 23, 8375-8392.	1.3	10
141	Atomistic simulation of the pressure-temperature-volume diagram in $\alpha$ -Al <sub>2</sub> O <sub>3</sub> . Solid State Communications, 1996, 98, 41-44.	0.9	9
142	Topological properties of the electron density of solids and molecules. Recent developments in Oviedo. Acta Crystallographica Section A: Foundations and Advances, 2004, 60, 434-437.	0.3	9
143	Efficient algorithms for Hirshfeld-I charges. Journal of Chemical Physics, 2015, 143, 084115.	1.2	9
144	How Electronic Excitation Can be Used to Inhibit Some Mechanisms Associated to Substituent Effects. ChemPhysChem, 2016, 17, 2666-2671.	1.0	9

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145	σ-Backbonding and non-covalent interactions in the JohnPhos and polyfluorothiolate complexes of gold( <i>scpt</i> ). Dalton Transactions, 2017, 46, 12456-12465.	1.6	9
146	Curvature of interatomic surfaces. I. Fundamentals. Journal of Chemical Physics, 2003, 119, 7633-7642.	1.2	8
147	Bonding and compressibility in molecular and polymeric phases of solid CO <sub>2</sub> . Journal of Physics Condensed Matter, 2004, 16, S1263-S1270.	0.7	8
148	Electron number distribution functions with iterative Hirshfeld atoms. Computational and Theoretical Chemistry, 2011, 975, 2-8.	1.1	8
149	Emergent Scalar and Vector Fields in Quantum Chemical Topology. Challenges and Advances in Computational Chemistry and Physics, 2016, , 131-150.	0.6	8
150	From quantum fragments to Lewis structures: electron counting in position space. Physical Chemistry Chemical Physics, 2018, 20, 21368-21380.	1.3	8
151	Photochemistry in Real Space: Bathochromism and Hypsochromism in the Water Dimer. Chemistry - A European Journal, 2020, 26, 17035-17045.	1.7	8
152	Electronic structure and electronic excitations of solid neon from an ab initio atom-in-the-lattice approach. The Journal of Physical Chemistry, 1992, 96, 2301-2307.	2.9	7
153	Modeling the O <sub>2</sub> <sup>+</sup> -O <sub>2</sub> <sup>-</sup> interaction for atomistic simulations. Physical Review B, 1995, 51, 11289-11295.	1.1	7
154	Ionic properties of perovskites derived from topological analysis of their wave function. Journal of Physics Condensed Matter, 1999, 11, 6329-6336.	0.7	7
155	Curvature of interatomic surfaces. II. Origin and systematics. Journal of Chemical Physics, 2003, 119, 7643-7650.	1.2	7
156	Structural effects of trifluoromethylation and fluorination in gold( <i>scpt</i> ) BIPHEP fluorothiolates. New Journal of Chemistry, 2017, 41, 10537-10541.	1.4	7
157	The Activation Strain Model in the Light of Real Space Energy Partitions. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2020, 646, 1062-1072.	0.6	7
158	Interacting Quantum Atoms Analysis of the Reaction Force: A Tool to Analyze Driving and Retarding Forces in Chemical Reactions. ChemPhysChem, 2021, 22, 1976-1988.	1.0	7
159	Interacting Quantum Atoms Method for Crystalline Solids. Journal of Physical Chemistry A, 2021, 125, 9011-9025.	1.1	7
160	Stronger-together: the cooperativity of aurophilic interactions. Chemical Communications, 2022, 58, 1398-1401.	2.2	7
161	Beyond Standard Charge Density Topological Analyses. , 2011, , 303-358.		6
162	Perspectives for quantum chemical topology in crystallography. Physica Scripta, 2013, 87, 048106.	1.2	6

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163	On the stability of some analytically solvable maximum probability domains. Theoretical Chemistry Accounts, 2014, 133, 1.	0.5	6
164	Performance of the RI and RIJCOSX approximations in the topological analysis of the electron density. Theoretical Chemistry Accounts, 2017, 136, 1.	0.5	6
165	Stability and <i>trans</i> Influence in Fluorinated Gold(I) Coordination Compounds. European Journal of Inorganic Chemistry, 2018, 2018, 4413-4420.	1.0	6
166	Lewis Structures from Open Quantum Systems Natural Orbitals: Real Space Adaptive Natural Density Partitioning. Journal of Physical Chemistry A, 2021, 125, 4013-4025.	1.1	6
167	QM/MM Energy Decomposition Using the Interacting Quantum Atoms Approach. Journal of Chemical Information and Modeling, 2022, 62, 1510-1524.	2.5	6
168	Does Steric Hindrance Actually Govern the Competition between Bimolecular Substitution and Elimination Reactions?. Journal of Physical Chemistry A, 2022, 126, 1871-1880.	1.1	6
169	The role of references and the elusive nature of the chemical bond. Nature Communications, 2022, 13, .	5.8	6
170	Exact versus truncated spectrally resolved exchange in ab initio calculations. Journal of Chemical Physics, 1992, 97, 452-458.	1.2	5
171	Inference of crystal properties from cluster magnitudes. Journal of Chemical Physics, 1995, 103, 432-439.	1.2	5
172	Reply to comments of Bader on the simplified variational derivation for quantum atoms in molecules. Chemical Physics Letters, 2006, 426, 229-230.	1.2	5
173	Theoretical Simulation of AlN Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 6667-6676.	1.5	5
174	Interacting Quantum Atoms Approach and Electrostatic Solvation Energy: Assessing Atomic and Group Solvation Contributions. ChemPhysChem, 2018, 19, 3425-3435.	1.0	5
175	Electron-pair bonding in real space. Is the charge-shift family supported?. Chemical Communications, 2019, 55, 5071-5074.	2.2	5
176	NNAIMQ: A neural network model for predicting QTAIM charges. Journal of Chemical Physics, 2022, 156, 014112.	1.2	5
177	Universal compressibility behaviour of ions in ionic crystals. High Pressure Research, 2009, 29, 97-102.	0.4	4
178	Hierarchies of quantum chemical descriptors induced by statistical analyses of domain occupation number operators. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2020, 10, e1456.	6.2	4
179	Electronegativity equalization: taming an old problem with new tools. Physical Chemistry Chemical Physics, 2020, 22, 22880-22884.	1.3	4
180	Energetics of Electron Pairs in Electrophilic Aromatic Substitutions. Molecules, 2021, 26, 513.	1.7	4

#	ARTICLE	IF	CITATIONS
181	Implementation of the interacting quantum atom energy decomposition using the CASPT2 method. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 27508-27519.	1.3	4
182	A real space picture of the role of steric effects in $S_N2$ reactions. <i>Journal of Computational Chemistry</i> , 2022, 43, 785-795.	1.5	4
183	Atomic shell structure from Born probabilities: Comparison to other shell descriptors and persistence in molecules. <i>Journal of Chemical Physics</i> , 2022, 156, 164103.	1.2	4
184	Strategies for determining and using antibonding interionic potentials. <i>Radiation Effects and Defects in Solids</i> , 1999, 151, 223-228.	0.4	3
185	Practical embedding for ionic materials: Crystal-adapted pseudopotentials for the MgO crystal. <i>Physical Review B</i> , 2001, 64, .	1.1	3
186	Revisiting the carbonyl $n \rightarrow \pi^*$ electronic excitation through topological eyes: expanding, enriching and enhancing the chemical language using electron number distribution functions and domain averaged Fermi holes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 26059-26071.	1.3	3
187	Towards an energy partition into real space resonance structures: 1- and 2-particle density matrix decomposition. <i>Molecular Physics</i> , 2016, 114, 1334-1344.	0.8	3
188	Mimicking Enzymes: Asymmetric Induction inside a Carbamate-Based Steroidal Cleft. <i>Organic Letters</i> , 2019, 21, 3994-3997.	2.4	3
189	The nature of the intermolecular interaction in $(H_2X)_2$ ( $X = O, S, Se$ ). <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10097-10107.	1.3	3
190	Static simulations of $Cu^{+}$ centers in alkali halides. <i>Radiation Effects and Defects in Solids</i> , 1995, 134, 47-50.	0.4	2
191	DFT performance in the IQA energy partition of small water clusters. <i>Theoretical Chemistry Accounts</i> , 2020, 139, 1.	0.5	2
192	Questioning the orbital picture of magnetic spin coupling: a real space alternative. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 639-652.	1.3	2
193	Energetics of the $RbF + CaF_2 \rightarrow RbCaF_3$ solid state reaction: A first-principles study. <i>Radiation Effects and Defects in Solids</i> , 1995, 134, 193-196.	0.4	1
194	Theoretical study of the coordination of the $Cr^{3+}$ ion in $\pm-Al_2O_3$ . <i>Radiation Effects and Defects in Solids</i> , 1995, 134, 123-126.	0.4	1
195	Microscopic Study of the Rock Salt-Caesium Chloride Phase Stability in Alkali Halides. <i>High Pressure Research</i> , 2002, 22, 443-446.	0.4	1
196	Preface to the Special Issue on "Understanding structure and reactivity from topology and beyond". <i>Computational and Theoretical Chemistry</i> , 2015, 1053, 1.	1.1	1
197	On the impact of a phosphoryl group in the recognition capabilities of 2-aminopyridines toward carboxylic acids. <i>Theoretical Chemistry Accounts</i> , 2019, 138, 1.	0.5	1
198	Reply to the "Comment on "Decoding real space bonding descriptors in valence bond language" by S. Shaik, P. Hiberty and D. Danovich, <i>Phys. Chem. Chem. Phys.</i> , 2019, 21, DOI: 10.1039/C8CP07225F. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 8175-8178.	1.3	1

#	ARTICLE	IF	CITATIONS
199	Understanding Topological Insulators in Real Space. <i>Molecules</i> , 2021, 26, 2965.	1.7	1
200	Localization and Delocalization in Solids from Electron Distribution Functions. <i>Journal of Chemical Theory and Computation</i> , 0, , .	2.3	1
201	The theory of electronic separability and the properties of impurities and defects in ionic crystals. <i>Radiation Effects and Defects in Solids</i> , 1991, 119-121, 443-444.	0.4	0
202	Stability of B1 and B2 phases from electronic density topology considerations. <i>Radiation Effects and Defects in Solids</i> , 1995, 134, 201-203.	0.4	0
203	Effects of a quantum crystal potential on the derivation of electron gas interionic energies. <i>Radiation Effects and Defects in Solids</i> , 1995, 134, 197-200.	0.4	0
204	A Classification of Covalent, Ionic, and Metallic Solids Based on the Electron Density.. <i>ChemInform</i> , 2003, 34, no.	0.1	0
205	Reduced-size representations of high-quality atomic densities. The hybrid Gaussian?exponential case. <i>Theoretical Chemistry Accounts</i> , 2004, 112, 113.	0.5	0
206	Electron sharing and localization in real space for the Mott transition from 1RDMFT periodic calculations. <i>Theoretical Chemistry Accounts</i> , 2017, 136, 1.	0.5	0
207	Photochemistry in Real Space: Bathochromism and Hypsochromism in the Water Dimer. <i>Chemistry - A European Journal</i> , 2020, 26, 16951-16951.	1.7	0
208	Is a more predictable QTAIM possible?. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2011, 67, C99-C99.	0.3	0