

Carlo Gatti

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145
papers

7,258
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45
h-index

83
g-index

173
ext. papers

7,870
ext. citations

5
avg. IF

5.97
L-index

#	Paper	IF	Citations
145	Ionic high-pressure form of elemental boron. <i>Nature</i> , 2009 , 457, 863-7	50.4	680
144	Crystal field effects on the topological properties of the electron density in molecular crystals: The case of urea. <i>Journal of Chemical Physics</i> , 1994 , 101, 10686-10696	3.9	577
143	Chemical bonding in crystals: new directions. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2005 , 220,	1	447
142	Bond paths as privileged exchange channels. <i>Chemistry - A European Journal</i> , 2007 , 13, 9362-71	4.8	260
141	The Impact of Nanostructuring on the Thermal Conductivity of Thermoelectric CoSb ₃ . <i>Advanced Functional Materials</i> , 2004 , 14, 1189-1196	15.6	239
140	A GreenQ function for the density. <i>Chemical Physics Letters</i> , 1998 , 287, 233-238	2.5	201
139	A stable compound of helium and sodium at high pressure. <i>Nature Chemistry</i> , 2017 , 9, 440-445	17.6	199
138	Properties of atoms in molecules: Dipole moments and transferability of properties. <i>Journal of Chemical Physics</i> , 1987 , 87, 1142-1152	3.9	184
137	Direct Space Representation of the Metallic Bond. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 947-953	2.8	166
136	On the presence of non-nuclear attractors in the charge distributions of Li and Na clusters. <i>Chemical Physics Letters</i> , 1987 , 141, 380-385	2.5	154
135	Interstitial Zn atoms do the trick in thermoelectric zinc antimonide, Zn ₄ Sb ₃ : a combined maximum entropy method X-ray electron density and ab initio electronic structure study. <i>Chemistry - A European Journal</i> , 2004 , 10, 3861-70	4.8	151
134	Chemical information from the source function. <i>Journal of Computational Chemistry</i> , 2003 , 24, 422-36	3.5	147
133	Charge density topological study of bonding in lithium clusters. <i>Theoretica Chimica Acta</i> , 1987 , 72, 433-458		145
132	Evolutionary Crystal Structure Prediction as a Method for the Discovery of Minerals and Materials. <i>Reviews in Mineralogy and Geochemistry</i> , 2010 , 71, 271-298	7.1	143
131	A Quantum-Mechanical Map for Bonding and Properties in Solids. <i>Advanced Materials</i> , 2019 , 31, e1806280		134
130	Evaluation of net atomic charges and atomic and molecular electrostatic moments through topological analysis of the experimental charge density. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2000 , 56 (Pt 3), 252-8		132
129	Revealing non-covalent interactions in molecular crystals through their experimental electron densities. <i>Chemistry - A European Journal</i> , 2012 , 18, 15523-36	4.8	123

128	Source function description of metal-metal bonding in d-block organometallic compounds. <i>Faraday Discussions</i> , 2007 , 135, 55-78; discussion 125-49, 503-6	3.6	118
127	On the origin of topological differences between experimental and theoretical crystal charge densities. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2000 , 56 (Pt 4), 332-9		118
126	Fundamental Properties and Nature of CH \cdots O Interactions in Crystals on the Basis of Experimental and Theoretical Charge Densities. The Case of 3,4-Bis(dimethylamino)-3-cyclobutene-1,2-dione (DMACB) Crystal. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 2707-2720	2.8	107
125	Stability of xenon oxides at high pressures. <i>Nature Chemistry</i> , 2013 , 5, 61-5	17.6	101
124	Non-covalent interaction via the reduced density gradient: Independent atom model vs experimental multipolar electron densities. <i>Computational and Theoretical Chemistry</i> , 2012 , 998, 148-163 ²		98
123	Testing the concept of hypervalency: charge density analysis of K ₂ SO ₄ . <i>Inorganic Chemistry</i> , 2012 , 51, 8607-16	5.1	87
122	Effect of electron correlation on the topological properties of molecular charge distributions. <i>Journal of Chemical Physics</i> , 1988 , 88, 3792-3804	3.9	87
121	Nanostructured Co _{1-x} Ni _x Sb ₃ skutterudites: Synthesis, thermoelectric properties, and theoretical modeling. <i>Journal of Applied Physics</i> , 2003 , 93, 438-447	2.5	82
120	Six questions on topology in theoretical chemistry. <i>Computational and Theoretical Chemistry</i> , 2015 , 1053, 2-16	2	81
119	Quantum Crystallography: Current Developments and Future Perspectives. <i>Chemistry - A European Journal</i> , 2018 , 24, 10881-10905	4.8	77
118	Formation and annihilation of a bond defect in silicon: An ab initio quantum-mechanical characterization. <i>Physical Review B</i> , 1998 , 57, 170-177	3.3	72
117	Nine questions on energy decomposition analysis. <i>Journal of Computational Chemistry</i> , 2019 , 40, 2248-2283	3.9	70
116	Nanostructured Co _{1-x} Ni _x (Sb _{1-y} Te _y) ₃ skutterudites: Theoretical modeling, synthesis and thermoelectric properties. <i>Journal of Applied Physics</i> , 2005 , 97, 044317	2.5	68
115	Molecular similarity based on information entropies and distances. <i>Journal of Chemical Physics</i> , 1998 , 108, 5469-5475	3.9	67
114	Guest-framework interaction in type I inorganic clathrates with promising thermoelectric properties: on the ionic versus neutral nature of the alkaline-earth metal guest A in A ₈ Ga ₁₆ Ge ₃₀ (A=Sr, Ba). <i>Chemistry - A European Journal</i> , 2003 , 9, 4556-68	4.8	64
113	The local form of the source function as a fingerprint of strong and weak intra- and intermolecular interactions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2004 , 60, 438-49		62
112	Nature of the bonding in metal-silane sigma-complexes. <i>Inorganic Chemistry</i> , 2009 , 48, 1588-98	5.1	61
111	Experimental vs. theoretical topological properties of charge density distributions. An application to the l-alanine molecule studied by X-ray diffraction at 23 K. <i>Computational and Theoretical Chemistry</i> , 1992 , 255, 409-433		56

110	Total electronic charge density of L-alanine from X-ray diffraction at 23 K. <i>Chemical Physics Letters</i> , 1991 , 186, 47-52	2.5	55
109	F center in sodium electrosodalite as a physical manifestation of a non-nuclear attractor in the electron density. <i>Physical Review B</i> , 1999 , 59, 12359-12369	3.3	54
108	The unexpected and large enhancement of the dipole moment in the 3,4-bis(dimethylamino)-3-cyclobutene-1,2-dione (DMACB) molecule upon crystallization: a new role of the intermolecular CH...O interactions. <i>Journal of the American Chemical Society</i> , 2001 , 123, 12248-54	16.4	51
107	The impact of the actual geometrical structure of a thermoelectric material on its electronic transport properties: the case of doped skutterudite systems. <i>Journal of Chemical Physics</i> , 2004 , 121, 8983-9	3.9	50
106	Revealing electron delocalization through the source function. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 12864-78	2.8	48
105	Dipole moment of the water molecule in the condensed phase: a periodic Hartree-Fock estimate. <i>Chemical Physics Letters</i> , 1995 , 247, 135-141	2.5	48
104	Vibrational properties of hexagonal Ge(2)Sb(2)Te(5) from first principles. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 245401	1.8	47
103	Energetics of non-covalent interactions from electron and energy density distributions. <i>Computational and Theoretical Chemistry</i> , 2015 , 1053, 53-59	2	45
102	Do the structural changes defined by the electron density topology necessarily affect the picture of the bonding?. <i>Inorganic Chemistry</i> , 2009 , 48, 11024-31	5.1	45
101	Chemical insight into electron density and wave functions: software developments and applications to crystals, molecular complexes and materials science. <i>Theoretical Chemistry Accounts</i> , 2007 , 117, 847-884	1.9	45
100	NCImilano: an electron-density-based code for the study of noncovalent interactions. <i>Journal of Applied Crystallography</i> , 2013 , 46, 1513-1517	3.8	44
99	Evolution of energetics and bonding of compact self-interstitial clusters in Si. <i>Europhysics Letters</i> , 2000 , 50, 608-614	1.6	44
98	The Source Function Descriptor as a Tool to Extract Chemical Information from Theoretical and Experimental Electron Densities. <i>Structure and Bonding</i> , 2011 , 193-285	0.9	43
97	Steric and Electronic Effects in Methyl-Substituted 2,2-Bipyrroles and Poly(2,2-Bipyrrole)s: Part I. Synthesis and Characterization of Monomers and Polymers. <i>Chemistry of Materials</i> , 2000 , 12, 1480-1489	9.6	42
96	Theoretical and experimental (113 K) electron-density study of lithium bis(tetramethylammonium) hexanitrocobaltate(III). <i>Acta Crystallographica Section B: Structural Science</i> , 1996 , 52, 471-478		39
95	Charge density topological approach to the dinorcaradiene .dblharw. [10]annulene equilibrium in some 11,11-disubstituted 1,6-methano[10]annulenes. <i>Journal of the American Chemical Society</i> , 1985 , 107, 878-887	16.4	38
94	Nitranions and their precursors: charge density rearrangements and nitrogen-15 NMR chemical shift changes. <i>Journal of the American Chemical Society</i> , 1992 , 114, 8634-8644	16.4	34
93	The high-pressure phase of boron, β B28: Disputes and conclusions of 5 years after discovery. <i>Journal of Superhard Materials</i> , 2011 , 33, 363-379	0.9	32

92	Challenging chemical concepts through charge density of molecules and crystals. <i>Physica Scripta</i> , 2013 , 87, 048102	2.6	31
91	High-Temperature Crystal Structure and Chemical Bonding in Thermoelectric Germanium Selenide (GeSe). <i>Chemistry - A European Journal</i> , 2017 , 23, 6888-6895	4.8	29
90	Ionic high-pressure form of elemental boron. <i>Nature</i> , 2009 , 460, 292	50.4	29
89	Steric and Electronic Effects in Methyl-Substituted 2,2-Bipyrroles and Poly(2,2-Bipyrrole)s: Part II. Theoretical Investigation on Monomers. <i>Chemistry of Materials</i> , 2000 , 12, 1490-1499	9.6	29
88	Comparative study of X-ray charge-density data on CoSb ₃ . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2013 , 69, 570-82		27
87	Structural study of Fe doped and Ni substituted thermoelectric skutterudites by combined synchrotron and neutron powder diffraction and ab initio theory. <i>Journal of Applied Physics</i> , 2004 , 96, 3148-3157	2.5	27
86	Relativistic Effects on Metal-Metal Bonding: Comparison of the Performance of ECP and Scalar DKH Description on the Picture of Metal-Metal Bonding in Re ₂ Cl ₈ (2.). <i>Journal of Chemical Theory and Computation</i> , 2010 , 6, 3113-21	6.4	24
85	The role of exchange-correlation functional on the description of multiferroic properties using density functional theory: the ATiO ₃ (A = Mn, Fe, Ni) case study. <i>RSC Advances</i> , 2016 , 6, 101216-101225	3.7	23
84	Using the Source Function descriptor to dampen the multipole model bias in charge density studies from X-ray structure factors refinements. <i>Chemical Physics Letters</i> , 2009 , 476, 308-316	2.5	23
83	Source Function applied to experimental densities reveals subtle electron-delocalization effects and appraises their transferability properties in crystals. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2016 , 72, 180-93	1.8	20
82	Experimental and theoretical studies of tetramethoxy-p-benzoquinone: infrared spectra, structural and lithium insertion properties. <i>RSC Advances</i> , 2013 , 3, 19081	3.7	20
81	The electron density in flavones I. Baicalein. <i>New Journal of Chemistry</i> , 2003 , 27, 1392-1398	3.6	20
80	Insights on spin polarization through the spin density source function. <i>Chemical Science</i> , 2015 , 6, 3845-3852	9.4	18
79	Playing with isomerism and N substitution in pentalenedione derivatives for organic electrode batteries: how high are the stakes?. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 2442-8	3.6	17
78	Electron Density Analysis 2013 , 187-226		17
77	Experimental and theoretical charge densities of a zinc-containing coordination polymer, Zn(HCOO) ₂ (H ₂ O) ₂ . <i>Inorganic Chemistry</i> , 2013 , 52, 297-305	5.1	17
76	Are Bader electron populations atomic size dependent?. <i>The Journal of Physical Chemistry</i> , 1993 , 97, 11677-11680		17
75	Cyclopropane ring closure in 11,11-disubstituted 1,6-methano [10] annulenes. <i>Computational and Theoretical Chemistry</i> , 1986 , 138, 39-50		17

74	Rationalizing the Lacking of Inversion Symmetry in a Noncentrosymmetric Polar Racemate: An Experimental and Theoretical Study. <i>Crystal Growth and Design</i> , 2014 , 14, 5822-5833	3.5	16
73	Shannon information entropies of molecules and functional groups in the self-consistent reaction field. <i>Journal of Chemical Physics</i> , 2000 , 112, 7572-7580	3.9	16
72	Ab initio predictions of optically allowed transitions in Na ₂₀ . Nature of excitations and influence of geometry. <i>Chemical Physics Letters</i> , 1993 , 213, 522-526	2.5	16
71	A random phase approximation study of the absorption spectrum of Na ₈ . <i>Chemical Physics Letters</i> , 1990 , 175, 645-654	2.5	16
70	Enantioseparation of fluorinated 3-arylthio-4,4'-bipyridines: Insights into chalcogen and H-bond bonds in high-performance liquid chromatography. <i>Journal of Chromatography A</i> , 2018 , 1567, 119-129	4.5	16
69	Geometrical reconstructions and electronic relaxations of silicon surfaces. I. An electron density topological study of H-covered and clean Si(111)(1 \times 1) surfaces. <i>Journal of Chemical Physics</i> , 2000 , 112, 887-899	3.9	15
68	Ab Initio Thermodynamic and Thermophysical Properties of Sodium Metasilicate, NaSiO ₃ , and Their Electron-Density and Electron-Pair-Density Counterparts. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 8881-8895	2.8	14
67	Challenging Problems in Charge Density Determination: Polar Bonds and Influence of the Environment. <i>Structure and Bonding</i> , 2011 , 47-97	0.9	14
66	Intermolecular Recognition of the Antimalarial Drug Chloroquine: A Quantum Theory of Atoms in Molecules Density Functional Theory Investigation of the Hydrated Dihydrogen Phosphate Salt from the 103 K X-ray Structure. <i>Crystal Growth and Design</i> , 2016 , 16, 6043-6054	3.5	14
65	Operational comparison of various thermodynamic treatments of organic substance adsorption at the electrode/solution interface. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1985 , 196, 179-197		13
64	Generalized self-consistent valence bond method for ground and excited potential energy surfaces. <i>Molecular Physics</i> , 1980 , 41, 1259-1279	1.7	13
63	Halogen bond in separation science: A critical analysis across experimental and theoretical results. <i>Journal of Chromatography A</i> , 2020 , 1616, 460788	4.5	13
62	Engineering of unsubstituted quinoid-like frameworks enabling 2 V vs. Li(+)/Li redox voltage tunability and related derivatives. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 8604-8	3.6	12
61	Electronic structure and energy decomposition analyses as a tool to interpret the redox potential ranking of naphtho-, biphenyl- and biphenylene-quinone isomers. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 26651-26660	3.6	11
60	Modeling environmental effects on charge density distributions in polar organometallics: validation of embedded cluster models for the methyl lithium crystal. <i>Journal of Computational Chemistry</i> , 2010 , 31, 2568-76	3.5	11
59	Expression and interactions of stereochemically active lone pairs and their relation to structural distortions and thermal conductivity. <i>IUCrJ</i> , 2020 , 7, 480-489	4.7	11
58	Halide Perovskites: Advanced Photovoltaic Materials Empowered by a Unique Bonding Mechanism. <i>Advanced Functional Materials</i> , 2019 , 29, 190166	15.6	11
57	An Electron Density Source-Function Study of DNA Base Pairs in Their Neutral and Ionized Ground States. <i>Journal of Computational Chemistry</i> , 2018 , 39, 1112-1128	3.5	10

56	Insights on spin delocalization and spin polarization mechanisms in crystals of azido copper(II) dinuclear complexes through the electron spin density Source Function. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2017 , 73, 565-583	1.8	10
55	Single N=C Bond Becomes Shorter than a Formally Double N=C Bond in a Thiazete-1,1-dioxide Crystal: An Experimental and Theoretical Study of Strong Crystal Field Effects. <i>Crystal Growth and Design</i> , 2014 , 14, 4418-4429	3.5	9
54	A Theoretical Study on the Rotational Motion and Interactions in the Disordered Phase of MBH ₄ (M = Li, Na, K, Rb, Cs). <i>Journal of Physical Chemistry C</i> , 2013 , 117, 2308-2316	3.8	9
53	Energetics and bonding in aluminosilicate rings with alkali metal and alkaline-earth metal charge-compensating cations. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 8584-98	2.8	9
52	Accuracy of topological analysis of gridded electron densities. <i>Journal of Physics and Chemistry of Solids</i> , 2004 , 65, 1951-1955	3.9	9
51	Spin Density Topology. <i>Molecules</i> , 2020 , 25,	4.8	9
50	Spin density accuracy and distribution in azido Cu(II) complexes: A source function analysis. <i>Journal of Computational Chemistry</i> , 2018 , 39, 587-603	3.5	8
49	Direct-space analysis of the Si-Bi bonding pattern in the Bi-bonded chain reconstructed Si(111)(2 × 1) surface. <i>Theoretical Chemistry Accounts</i> , 2001 , 105, 309-322	1.9	8
48	TOPOND: a program for the application of the quantum theory of atoms in molecules to periodic systems. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1996 , 52, C555-C556		8
47	Mapping the complete bonding network in KBH ₄ using the combined power of powder diffraction and maximum entropy method. <i>Computational and Theoretical Chemistry</i> , 2015 , 1053, 245-253	2	7
46	Probing Cyclic π-Electron Delocalization in an Imidazol-2-ylidene and a Corresponding Imidazolium Salt. <i>Chemistry - A European Journal</i> , 2018 , 24, 4973-4981	4.8	7
45	The low/room-temperature forms of the lithiated salt of 3,6-dihydroxy-2,5-dimethoxy-p-benzoquinone: a combined experimental and dispersion-corrected density functional study. <i>CrystEngComm</i> , 2013 , 15, 2809	3.3	7
44	A variable-temperature X-ray diffraction and theoretical study of conformational polymorphism in a complex organic molecule (DTC).. <i>RSC Advances</i> , 2018 , 8, 38445-38454	3.7	7
43	Do the basic crystal chemistry principles agree with a plethora of recent quantum chemistry data?. <i>IUCrJ</i> , 2018 , 5, 542-547	4.7	7
42	Understanding the Reorientational Dynamics of Solid-State MBH ₄ (M = Li-Cs). <i>Journal of Physical Chemistry C</i> , 2015 , 119, 12109-12118	3.8	6
41	The electric field gradient at the N nuclei and the topology of the charge distribution in the protonation of urea. <i>Journal of Chemical Physics</i> , 1994 , 101, 9800-9806	3.9	6
40	Pseudopotential calculations on hydrogen bonded systems : H ₂ O, CH ₃ OH and HCOOH dimers. <i>Molecular Physics</i> , 1979 , 38, 1865-1874	1.7	6
39	Factors Impacting Band and Hole Regions as Revealed by the Electrostatic Potential and Its Source Function Reconstruction: The Case of 4,4'-Bipyridine Derivatives. <i>Molecules</i> , 2020 , 25,	4.8	6

38	Enantioseparation of 5,5-Dibromo-2,2-Dichloro-3-Selanyl-4,4-Bipyridines on Polysaccharide-Based Chiral Stationary Phases: Exploring Chalcogen Bonds in Liquid-Phase Chromatography. <i>Molecules</i> , 2021 , 26,	4.8	6
37	Bond Order Conservation Principle and Peculiarities of the Metal-Metal Bonding. <i>Inorganic Chemistry</i> , 2018 , 57, 15550-15557	5.1	6
36	How to Identify Lone Pairs, Van der Waals Gaps, and Metavalent Bonding Using Charge and Pair Density Methods: From Elemental Chalcogens to Lead Chalcogenides and Phase-Change Materials. <i>Physica Status Solidi - Rapid Research Letters</i> , 2000534	2.5	6
35	A revisit of the bond valence model makes it universal. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 13839-13849	3.6	5
34	Substituent effect on the planarization energy and the relative stability of Winstein and Möbius structures of the homotropylium cation. <i>Computational and Theoretical Chemistry</i> , 1988 , 167, 275-300		5
33	Beyond π : chemical bond analysis using the local form of the source function. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2005 , 61, c47-c48		5
32	Momoaromaticity versus Möbius aromaticity. <i>Journal De Chimie Physique Et De Physico-Chimie Biologique</i> , 1987 , 84, 783-789		5
31	Computational Modeling of 2D Materials under High Pressure and Their Chemical Bonding: Silicene as Possible Field-Effect Transistor. <i>ACS Nano</i> , 2021 , 15, 6861-6871	16.7	5
30	Assessing the Strength of Metal-Metal Interactions. <i>Inorganic Chemistry</i> , 2019 , 58, 7466-7471	5.1	4
29	13. Evolutionary Crystal Structure Prediction as a Method for the Discovery of Minerals and Materials 2010 , 271-298		4
28	Rate enhancement of 1,3-dipolar cycloaddition of N-methylindole: the singular role of Grignard reagents 1998 , 11, 455-466		4
27	Search for cold fusion induced by electrolysis in palladium 1990 , 103, 1617-1638		4
26	A theoretical investigation on the role of solvent in solvolytic reactions. <i>Theoretica Chimica Acta</i> , 1983 , 63, 245-253		4
25	Metal-Metal Bond in the Light of Pauling's Rules. <i>Molecules</i> , 2021 , 26,	4.8	4
24	Charge Density Analysis of Actinide Compounds from the Quantum Theory of Atoms in Molecules and Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 1862-1868	6.4	4
23	On the choice of the perturbed state for pmc prediction of selectivities in cycloaddition reactions. <i>Computational and Theoretical Chemistry</i> , 1990 , 208, 235-251		3
22	The ring closure reaction in 1,6-methano-[10]annulene. <i>International Journal of Quantum Chemistry</i> , 1984 , 26, 433-438	2.1	3
21	Exploring Chemistry Through the Source Function for the Electron and the Electron Spin Densities. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2016 , 101-129	0.7	3

20	Steric and Electrostatic Effects in Compounds with Centered Clusters Quantified by Bond Order Analysis. <i>Crystal Growth and Design</i> , 2020 , 20, 2115-2122	3.5	2
19	Relating Electrochemistry of New Organic Materials for Batteries and Fundamental Understanding through DFT Calculations. <i>Advances in Science and Technology</i> , 2014 , 93, 146-151	0.1	2
18	A Guided Tour Through Modern Charge Density Analysis 2011 , 1-78		2
17	A theoretical investigation on the chemical bonding of interstitial and vacancy defects in silicon during their migration. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997 , 127-128, 235-238	1.2	2
16	Solid State Applications of QTAIM and the Source Function [Molecular Crystals, Surfaces, Host-Guest Systems and Molecular Complexes] 163-206		2
15	Thermoelectric properties of nano-grained CoSb ₃ /skutterudites doped with Ni and Te		2
14	Thermoelectric performance of large single crystal clathrate Ba ₈ /Ga ₁₆ /Ge ₃₀ /		2
13	Chapter 5: Chemical Bonding Investigations for Materials 2018 , 117-175		2
12	Calcium filled skutterudites Ca _x Co ₄ Sb ₁₂ : effect of the computational approach on the ab-initio modeled electronic transport properties. <i>Journal of Physics: Conference Series</i> , 2008 , 117, 012010	0.3	1
11	Standardisation in thermoelectric transport properties measurements - the Cardiff NEDO laboratories and DLR Cologne program		1
10	Theoretical modeling of Te doped CoSb ₃ /		1
9	Thermal rearrangements of the homotropylium cation: An MO investigation of some relevant stationary points on the potential energy surface. <i>Computational and Theoretical Chemistry</i> , 1988 , 166, 431-438		1
8	Looking at local classical and quantum forces in stable crystals using multipole-model refined electron densities and orbital-free DFT approximations. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2020 , 76, 724-726	1.8	1
7	A Chemical Approach to the First-Principles Modeling of Novel Thermoelectric Materials 2005 , 7-1-7-13		1
6	Heterointerface Electronic States and Charge Transport of Crystalline N,N'-1H,1H'-Perfluorobutyl Dicyanoperylene Diimide in Field-Effect Transistor Configuration. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 12083-12091	3.8	1
5	A tool for deciphering the redox potential ranking of organic compounds: a case study of biomass-extracted quinones for sustainable energy. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 20212 ^{3,6} 20226 ⁰		
4	Unravelling functions of halogen substituents in the enantioseparation of halogenated planar chiral ferrocenes on polysaccharide-based chiral stationary phases: experimental and electrostatic potential analyses.. <i>Journal of Chromatography A</i> , 2022 , 1673, 463097	4.5	0
3	Strongly Correlated Intermetallics: (\mathbf{FeSb}_2). <i>Springer Series in Materials Science</i> , 2013 , 71-93	0.9	

2 Evolutionary Crystal Structure Prediction and Novel High-Pressure Phases. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2010**, 293-323 0.2

1 Interaction energy and density in the water dimer. A quantum theory of atoms in molecules: insight on the effect of basis set superposition error removal **2000**, 93-114