Heping Zhang

List of Publications by Year
in descending order

155 papers	1,886 citations	331538 21 h-index	377752 34 g-index
155 all docs	155 docs citations	155 times ranked	493 citing authors

#	Article	IF	Citations
1	Resistance distance and Kirchhoff index in circulant graphs. International Journal of Quantum Chemistry, 2007, 107, 330-339.	1.0	98
2	Kirchhoff index of linear hexagonal chains. International Journal of Quantum Chemistry, 2008, 108, 503-512.	1.0	85
3	Plane elementary bipartite graphs. Discrete Applied Mathematics, 2000, 105, 291-311.	0.5	84
4	The Clar covering polynomial of hexagonal systems I. Discrete Applied Mathematics, 1996, 69, 147-167.	0.5	82
5	Kirchhoff index of composite graphs. Discrete Applied Mathematics, 2009, 157, 2918-2927.	0.5	68
6	Matching preclusion for balanced hypercubes. Theoretical Computer Science, 2012, 465, 10-20.	0.5	59
7	Characterizations for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si20.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="script">P</mml:mi></mml:mrow><mml:mrow><mml:mo>â‰¥</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:m and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si21.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="script">P</mml:mi></mml:mrow><mml:mrow><mml:mo>â‰¥</mml:mo><mml:mn>3</mml:. Discre	0.4	39
8	New Lower Bound on the Number of Perfect Matchings in Fullerene Graphs. Journal of Mathematical Chemistry, 2001, 30, 343-347.	0.7	35
9	Onk-Resonant Fullerene Graphs. SIAM Journal on Discrete Mathematics, 2009, 23, 1023-1044.	0.4	33
10	A Distributive Lattice on the Set of Perfect Matchings of a Plane Bipartite Graph. Order, 2003, 20, 13-29.	0.3	30
11	Some rules on resistance distance with applications. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 445203.	0.7	28
12	Hyper-Hamiltonian laceability of balanced hypercubes. Journal of Supercomputing, 2014, 68, 302-314.	2.4	28
13	Computing the permanental polynomials of bipartite graphs by Pfaffian orientation. Discrete Applied Mathematics, 2012, 160, 2069-2074.	0.5	26
14	The rotation graphs of perfect matchings of plane bipartite graphs. Discrete Applied Mathematics, 1997, 73, 5-12.	0.5	25
15	Resonance Graphs and a Binary Coding for the 1-Factors of Benzenoid Systems. SIAM Journal on Discrete Mathematics, 2008, 22, 971-984.	0.4	25
16	Forcing matching numbers of fullerene graphs. Discrete Applied Mathematics, 2010, 158, 573-582.	0.5	25
17	Anti-forcing numbers of perfect matchings of graphs. Discrete Applied Mathematics, 2016, 202, 95-105.	0.5	25
18	An Upper Bound for the Clar Number of Fullerene Graphs. Journal of Mathematical Chemistry, 2007, 41, 123-133.	0.7	24

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19	Some graphs determined by their spectra. Linear Algebra and Its Applications, 2009, 431, 1443-1454.	0.4	24
20	The Clar covering polynomial of hexagonal systems III. Discrete Mathematics, 2000, 212, 261-269.	0.4	23
21	A note on the cyclical edge-connectivity of fullerene graphs. Journal of Mathematical Chemistry, 2008, 43, 134-140.	0.7	23
22	Matching preclusion for vertex-transitive networks. Discrete Applied Mathematics, 2016, 207, 90-98.	0.5	22
23	Perfect Matchings of Polyomino Graphs. Graphs and Combinatorics, 1997, 13, 295-304.	0.2	21
24	The Clar covering polynomial of hexagonal systems with an application to chromatic polynomials. Discrete Mathematics, 1997, 172, 163-173.	0.4	21
25	Z-transformation graphs of perfect matchings of plane bipartite graphs. Discrete Mathematics, 2004, 276, 393-404.	0.4	21
26	Extremal fullerene graphs with the maximum Clar number. Discrete Applied Mathematics, 2009, 157, 3152-3173.	0.5	21
27	k-resonance in Toroidal Polyhexes*. Journal of Mathematical Chemistry, 2005, 38, 451-466.	0.7	20
28	Normal Components, KekulÃ© Patterns, and Clar Patterns in Plane Bipartite Graphs. Journal of Mathematical Chemistry, 2002, 31, 405-420.	0.7	19
29	A complete characterization for k-resonant Klein-bottle polyhexes. Journal of Mathematical Chemistry, 2008, 43, 45-59.	0.7	18
30	Fibonacci-like cubes as <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si9.gif" display="inline" overflow="scroll"><mml:mi>Z</mml:mi></mml:math>-transformation graphs. Discrete Mathematics, 2009, 309, 1284-1293.	0.4	18
31	On the characterizing properties of the permanental polynomials of graphs. Linear Algebra and Its Applications, 2013, 438, 157-172.	0.4	18
32	Extremal hexagonal chains with respect to the coefficients sum of the permanental polynomial. Applied Mathematics and Computation, 2016, 291, 30-38.	1.4	18
33	Proofs of two conjectures on generalized Fibonacci cubes. European Journal of Combinatorics, 2016, 51, 419-432.	0.5	18
34	Sufficient conditions for graphs to beÎ»â€²-optimal and super-Î»â€². Networks, 2007, 49, 234-242.	1.6	17
35	On forcing matching number of boronâ€“nitrogen fullerene graphs. Discrete Applied Mathematics, 2011, 159, 1581-1593.	0.5	17
36	Per-spectral characterizations of some edge-deleted subgraphs of a complete graph. Linear and Multilinear Algebra, 2015, 63, 397-410.	0.5	17

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37	The restricted edge-connectivity and restricted connectivity of augmentedk-aryn-cubes. International Journal of Computer Mathematics, 2016, 93, 1281-1298.	1.0	17
38	A combination of Clar number and KekulÃ© count as an indicator of relative stability of fullerene isomers of C60. Journal of Mathematical Chemistry, 2010, 48, 733-740.	0.7	16
39	New Nordhaus-Gaddum-type results for the Kirchhoff index. Journal of Mathematical Chemistry, 2011, 49, 1587-1598.	0.7	16
40	Hexagonal resonance of (3,6)-fullerenes. Journal of Mathematical Chemistry, 2012, 50, 261-273.	0.7	16
41	Anti-forcing spectra of perfect matchings of graphs. Journal of Combinatorial Optimization, 2017, 33, 660-680.	0.8	16
42	The connectivity of Z-transformation graphs of perfect matchings of polyominoes. Discrete Mathematics, 1996, 158, 257-272.	0.4	15
43	Hosoya polynomials of armchair open-ended nanotubes. International Journal of Quantum Chemistry, 2007, 107, 586-596.	1.0	15
44	The Laplacian spectral radius of some bipartite graphs. Linear Algebra and Its Applications, 2008, 428, 1610-1619.	0.4	15
45	Construction for bicritical graphs and k-extendable bipartite graphs. Discrete Mathematics, 2006, 306, 1415-1423.	0.4	14
46	The forcing number of toroidal polyhexes. Journal of Mathematical Chemistry, 2008, 43, 457-475.	0.7	14
47	Clar and sextet polynomials of buckminsterfullerene. Computational and Theoretical Chemistry, 2003, 622, 239-248.	1.5	13
48	2-resonance of plane bipartite graphs and its applications to boronâ€“nitrogen fullerenes. Discrete Applied Mathematics, 2010, 158, 1559-1569.	0.5	13
49	Embedding on alphabet overlap digraphs. Journal of Mathematical Chemistry, 2010, 47, 62-71.	0.7	12
50	2-extendability and k-resonance of non-bipartite Klein-bottle polyhexes. Discrete Applied Mathematics, 2011, 159, 800-811.	0.5	12
51	Characterizing properties of permanental polynomials of lollipop graphs. Linear and Multilinear Algebra, 2014, 62, 419-444.	0.5	12
52	Per-spectral and adjacency spectral characterizations of a complete graph removing six edges. Discrete Applied Mathematics, 2016, 203, 158-170.	0.5	12
53	Matching preclusion and conditional edge-fault Hamiltonicity of binary de Bruijn graphs. Discrete Applied Mathematics, 2017, 233, 104-117.	0.5	12
54	Energy conservation in wireless sensor networks and connectivity of graphs. Theoretical Computer Science, 2008, 393, 81-89.	0.5	11

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55	Hosoya polynomials of TUC4C8(S) nanotubes. Journal of Mathematical Chemistry, 2009, 45, 488-502.	0.7	11
56	The architecture of polyhedral links and their HOMFLY polynomials. Journal of Mathematical Chemistry, 2010, 48, 439-456.	0.7	11
57	Per-spectral characterizations of graphs with extremal per-nullity. Linear Algebra and Its Applications, 2015, 484, 13-26.	0.4	11
58	Solution to a conjecture on words that are bad and 2-isometric. Theoretical Computer Science, 2015, 562, 243-251.	0.5	11
59	Complete forcing numbers of catacondensed hexagonal systems. Journal of Combinatorial Optimization, 2015, 29, 803-814.	0.8	11
60	Anti-forcing spectrum of any cata-condensed hexagonal system is continuous. Frontiers of Mathematics in China, 2017, 12, 325-337.	0.4	11
61	On the maximum forcing and anti-forcing numbers of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml3" display="inline" overflow="scroll" altimg="si3.gif"><mml:mrow><mml:mo>(</mml:mo><mml:mn>4</mml:mn><mml:mo>,</mml:mo><mml:mn>6</mml:mn><mml:mo Discrete Applied Mathematics, 2017, 233, 187-194.	0.5	11
62	The isolated-pentagon rule and nice substructures in fullerenes. Ars Mathematica Contemporanea, 2018, 15, 487-497.	0.3	11
63	Generalized Hosoya polynomials of hexagonal chains. Journal of Mathematical Chemistry, 2008, 43, 852-863.	0.7	10
64	Anti-forcing polynomials for benzenoid systems with forcing edges. Discrete Applied Mathematics, 2018, 250, 342-356.	0.5	10
65	A new enumeration method for KekulÃ© structures of hexagonal systems with forcing edges. Computational and Theoretical Chemistry, 1995, 331, 255-260.	1.5	9
66	k-resonant toroidal polyhexes. Journal of Mathematical Chemistry, 2008, 44, 270-285.	0.7	9
67	2-extendability of toroidal polyhexes and Klein-bottle polyhexes. Discrete Applied Mathematics, 2009, 157, 292-299.	0.5	9
68	Matchings extend to Hamiltonian cycles in k-ary n-cubes. Information Sciences, 2015, 305, 1-13.	4.0	9
69	Forcing polynomials of benzenoid parallelogram and its related benzenoids. Applied Mathematics and Computation, 2016, 284, 209-218.	1.4	9
70	Extremal anti-forcing numbers of perfect matchings of graphs. Discrete Applied Mathematics, 2017, 224, 69-79.	0.5	9
71	Forcing and anti-forcing polynomials of perfect matchings for some rectangle grids. Journal of Mathematical Chemistry, 2019, 57, 202-225.	0.7	9
72	Characterizations for Some Types of DNA Graphs. Journal of Mathematical Chemistry, 2007, 42, 65-79.	0.7	8

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73	None of the coronoid systems can be isometrically embedded into a hypercube. Discrete Applied Mathematics, 2008, 156, 2817-2822.	0.5	8
74	Maximally matched and super matched regular graphs. International Journal of Computer Mathematics: Computer Systems Theory, 2016, 1, 74-84.	0.7	8
75	The maximum forcing number of cylindrical grid, toroidal 4â€“8 lattice and Klein bottle 4â€“8 lattice. Journal of Mathematical Chemistry, 2016, 54, 18-32.	0.7	8
76	A note on the permanental roots of bipartite graphs. Discussiones Mathematicae - Graph Theory, 2014, 34, 49.	0.2	7
77	Hexagonal systems with fixed bonds. Discrete Applied Mathematics, 1993, 47, 285-296.	0.5	6
78	Relations between Clar structures, Clar covers, and the sextet-rotation tree of a hexagonal system. Discrete Applied Mathematics, 2008, 156, 1809-1821.	0.5	6
79	The Hosoya polynomial decomposition for catacondensed benzenoid graphs. Discrete Applied Mathematics, 2008, 156, 2930-2938.	0.5	6
80	Maximal resonance of cubic bipartite polyhedral graphs. Journal of Mathematical Chemistry, 2010, 48, 676-686.	0.7	6
81	Direct Sum of Distributive Lattices on the Perfect Matchings of a Plane Bipartite Graph. Order, 2010, 27, 101-113.	0.3	6
82	Embeddability of open-ended carbon nanotubes in hypercubes. Computational Geometry: Theory and Applications, 2010, 43, 524-534.	0.3	6
83	GENERA OF THE LINKS DERIVED FROM 2-CONNECTED PLANE GRAPHS. Journal of Knot Theory and Its Ramifications, 2012, 21, 1250129.	0.1	6
84	Clar Structure and Fries Set of Fullerenes and (4,6)-Fullerenes on Surfaces. Journal of Applied Mathematics, 2014, 2014, 1-11.	0.4	6
85	On the global forcing number of hexagonal systems. Discrete Applied Mathematics, 2014, 162, 334-347.	0.5	6
86	Decomposition theorem on matchable distributive lattices. Discrete Applied Mathematics, 2014, 166, 239-248.	0.5	6
87	A negative answer to a problem on generalized Fibonacci cubes. Discrete Mathematics, 2017, 340, 81-86.	0.4	6
88	Matching preclusion for direct product of regular graphs. Discrete Applied Mathematics, 2020, 277, 221-230.	0.5	6
89	Approximation algorithms for capacitated partial inverse maximum spanning tree problem. Journal of Global Optimization, 2020, 77, 319-340.	1.1	6
90	A maximum resonant set of polyomino graphs. Discussiones Mathematicae - Graph Theory, 2016, 36, 323.	0.2	6

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91	Z -transformation graphs of maximum matchings of plane bipartite graphs. Discrete Applied Mathematics, 2004, 134, 339-350.	0.5	5
92	A minâ€“max result on outerplane bipartite graphs. Applied Mathematics Letters, 2007, 20, 199-205.	1.5	5
93	The Hosoya polynomial decomposition for hexagonal chains. Mathematical and Computer Modelling, 2008, 48, 601-609.	2.0	5
94	Dimer statistics of honeycomb lattices on Klein bottle, MÃ¶bius strip and cylinder. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 3833-3848.	1.2	5
95	Super restricted edge-connectivity of graphs with diameter 2. Discrete Applied Mathematics, 2013, 161, 445-451.	0.5	5
96			

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109	The bondage number of the strong product of a complete graph with a path and a special starlike tree. Discrete Mathematics, Algorithms and Applications, 2016, 08, 1650006.	0.4	4
110	Upper bounds on the bondage number of the strong product of a graph and a tree. International Journal of Computer Mathematics, 2018, 95, 511-527.	1.0	4
111	Construction for trees with unique minimum dominating sets. International Journal of Computer Mathematics: Computer Systems Theory, 2018, 3, 204-213.	0.7	4
112	On bicriticality of (3,6)-fullerene graphs. Journal of Mathematical Chemistry, 2018, 56, 2785-2793.	0.7	4
113	Characterizing the fullerene graphs with the minimum forcing number 3. Discrete Applied Mathematics, 2021, 294, 181-204.	0.5	4
114	Per-spectral characterizations of some bipartite graphs. Discussiones Mathematicae - Graph Theory, 2017, 37, 935.	0.2	4
115	Cell rotation graphs of strongly connected orientations of plane graphs with an application. Discrete Applied Mathematics, 2003, 130, 469-485.	0.5	3
116	Path-comprehensive and vertex-pancyclic properties of super line graph <mml:math altimg="si2.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/c.	0.4	3
117	Hosoya polynomials ofTUC4C8(R) nanotubes. International Journal of Quantum Chemistry, 2009, 109, 641-649.	1.0	3
118	A general sufficient condition for a graph G with Î» m (G) â©½ Î¶ m (G). Science China Mathematics, 2010, 53, 1039-1044.	0.8	3
119	Determining which Fibonacci <mml:math altimg="si38.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd"	0.4	3
120	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si22.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>I</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub></mml:math> under the edge-gluing operation on graphs. Discrete Mathematics, 2013, 313, 2115-2118.	0.4	3
121	On the Permanental Polynomials of Matrices. Bulletin of the Malaysian Mathematical Sciences Society, 2015, 38, 1361-1374.	0.4	3
122	Non-matchable distributive lattices. Discrete Mathematics, 2015, 338, 122-132.	0.4	3
123	Bondage number of strong product of two paths. Frontiers of Mathematics in China, 2015, 10, 435-460.	0.4	3
124	Fullerenes with the maximum Clar number. Discrete Applied Mathematics, 2016, 202, 58-69.	0.5	3
125	On the anti-KekulÃ© number of (4,5,6)-fullerenes. Discrete Applied Mathematics, 2020, 283, 577-589.	0.5	3
126	Minimal 2-matching-covered graphs. Discrete Mathematics, 2009, 309, 4270-4279.	0.4	2

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127	Some results on Laplacian spectral radius of graphs with cut vertices. Discrete Mathematics, 2010, 310, 3494-3505.	0.4	2
128	Prescribed matchings extend to Hamiltonian cycles in hypercubes with faulty edges. Discrete Mathematics, 2014, 321, 35-44.	0.4	2
129	Ear decomposition of 3-regular polyhedral links with applications. Journal of Theoretical Biology, 2014, 359, 146-154.	0.8	2
130	Hexagonal systems with the one-to-one correspondence between geometric and algebraic KekulÃ© structures. Discrete Applied Mathematics, 2018, 238, 144-157.	0.5	2
131	Conditional Matching Preclusion for Folded Hypercubes. Journal of Interconnection Networks, 2019, 19, 1940011.	0.6	2
132	Counting Clar structures of (4, 6)-fullerenes. Applied Mathematics and Computation, 2019, 346, 559-574.	1.4	2
133	Complete forcing numbers of hexagonal systems. Journal of Mathematical Chemistry, 2021, 59, 1767-1784.	0.7	2
134	Relations between global forcing number and maximum anti-forcing number of a graph. Discrete Applied Mathematics, 2022, 311, 85-96.	0.5	2
135	Total Z-transformation graphs of perfect matching of plane bipartite graphs. Electronic Notes in Discrete Mathematics, 2000, 5, 317-320.	0.4	1
136	A characterization of the interval distance monotone graphs. Discrete Mathematics, 2007, 307, 2622-2627.	0.4	1
137	Some Indices of Alphabet Overlap Graph. Journal of Computer Science and Technology, 2012, 27, 897-902.	0.9	1
138	3â€Factorâ€Criticality of Vertexâ€Transitive Graphs. Journal of Graph Theory, 2016, 81, 262-271.	0.5	1
139	Matching preclusion for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml31" display="inline" overflow="scroll" altimg="si25.gif"><mml:mi>n</mml:mi></mml:math>-grid graphs. Discrete Applied Mathematics, 2018, 243, 194-206.	0.5	1
140	The Cyclic Edge Connectivity and Anti-KekulÃ© Number of the (5,6,7)-Fullerene. Polycyclic Aromatic Compounds, 2020, 40, 144-149.	1.4	1
141	The Star-Structure Connectivity and Star-Substructure Connectivity of Hypercubes and Folded Hypercubes. Computer Journal, 0, , .	1.5	1
142	Regular Coronoids and Ear Decompositions of Plane Elementary Bipartite Graphs. , 2005, , 259-271.		1
143	Complete forcing numbers of hexagonal systems II. Journal of Mathematical Chemistry, 2022, 60, 666-680.	0.7	1
144	Continuous forcing spectrum of regular hexagonal polyhexes. Applied Mathematics and Computation, 2022, 425, 127058.	1.4	1

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145	A solution to Gutman's problem on the characteristic polynomial of a bipartite graph. Discrete Mathematics, 1996, 154, 297-300.	0.4	0
146	Forbidden subgraph and perfect path-matchings. , 2009, , .		0
147	The HOMFLY polynomials of odd polyhedral links. Journal of Mathematical Chemistry, 2013, 51, 1310-1328.	0.7	0
148	Super s-restricted edge-connectivity of vertex-transitive graphs. Science China Mathematics, 2014, 57, 1883-1890.	0.8	0
149	Single coronoid systems with an anti-forcing edge. Discrete Applied Mathematics, 2017, 233, 94-103.	0.5	0
150	The (n,Âk)-Extendable Graphs in Surfaces. Graphs and Combinatorics, 2019, 35, 941-957.	0.2	0
151	Fractional matching preclusion number of graphs and the perfect matching polytope. Journal of Combinatorial Optimization, 2020, 39, 915-932.	0.8	0
152	Nice pairs of disjoint pentagons in fullerene graphs. Journal of Mathematical Chemistry, 2021, 59, 1316-1331.	0.7	0
153	Sharp upper bounds on the Clar number of fullerene graphs. Discussiones Mathematicae - Graph Theory, 2018, 38, 155.	0.2	0
154	The anti-forcing spectra of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si53.svg"><mml:mrow><mml:mo>(</mml:mo><mml:mn>4</mml:mn><mml:mo>,</mml:mo><mml:mn>6</mml:mn><mml:mo> Applied Mathematics and Computation, 2022, 425, 127090.	1.4	0
155	Some novel minimax results for perfect matchings of hexagonal systems. Discrete Applied Mathematics, 2022, 320, 435-445.	0.5	0