Wei Zhang

List of Publications by Year
in descending order

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132 papers	14,375 citations	19608 61 h-index	20307 116 g-index
144 all docs	144 docs citations	144 times ranked	11910 citing authors

#	Article	IF	Citations
1	Recent advances in dynamic covalent chemistry. Chemical Society Reviews, 2013, 42, 6634.	18.7	1,130
2	Heatâ€•or Waterâ€Driven Malleability in a Highly Recyclable Covalent Network Polymer. Advanced Materials, 2014, 26, 3938-3942.	11.1	636
3	Shape-Persistent Macrocycles: Structures and Synthetic Approaches from Arylene and Ethynylene Building Blocks. Angewandte Chemie - International Edition, 2006, 45, 4416-4439.	7.2	513
4	Synthesis of Ultrafine and Highly Dispersed Metal Nanoparticles Confined in a Thioether-Containing Covalent Organic Framework and Their Catalytic Applications. Journal of the American Chemical Society, 2017, 139, 17082-17088.	6.6	506
5	Ionic Covalent Organic Frameworks with Spiroborate Linkage. Angewandte Chemie - International Edition, 2016, 55, 1737-1741.	7.2	503
6	Repairable Woven Carbon Fiber Composites with Full Recyclability Enabled by Malleable Polyimine Networks. Advanced Materials, 2016, 28, 2904-2909.	11.1	455
7	Dynamic Covalent Chemistry Approaches Toward Macrocycles, Molecular Cages, and Polymers. Accounts of Chemical Research, 2014, 47, 1575-1586.	7.6	406
8	Detection of Explosives with a Fluorescent Nanofibril Film. Journal of the American Chemical Society, 2007, 129, 6978-6979.	6.6	377
9	Rehealable, fully recyclable, and malleable electronic skin enabled by dynamic covalent thermoset nanocomposite. Science Advances, 2018, 4, eaaq0508.	4.7	375
10	Imine-Linked Porous Polymer Frameworks with High Small Gas (H₂, CO₂,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 Selectivity. Chemistry of Materials, 2013, 25, 1630-1635.	3.2	350
11	Tessellated multiporous two-dimensional covalent organic frameworks. Nature Reviews Chemistry, 2017, 1, .	13.8	319
12	Synthesis of a Twoâ€Dimensional Covalent Organic Monolayer through Dynamic Imine Chemistry at the Air/Water Interface. Angewandte Chemie - International Edition, 2016, 55, 213-217.	7.2	276
13	Crystalline Lithium Imidazolate Covalent Organic Frameworks with High Li-Ion Conductivity. Journal of the American Chemical Society, 2019, 141, 7518-7525.	6.6	261
14	Alkyne Metathesis: Catalysts and Synthetic Applications. Advanced Synthesis and Catalysis, 2007, 349, 93-120.	2.1	258
15	A Highly C₇₀ Selective Shape-Persistent Rectangular Prism Constructed through One-Step Alkyne Metathesis. Journal of the American Chemical Society, 2011, 133, 20995-21001.	6.6	257
16	Porphyrin-based frameworks for oxygen electrocatalysis and catalytic reduction of carbon dioxide. Chemical Society Reviews, 2021, 50, 2540-2581.	18.7	249
17	Highly CO₂-Selective Organic Molecular Cages: What Determines the CO₂ Selectivity. Journal of the American Chemical Society, 2011, 133, 6650-6658.	6.6	241
18	A Shapeâ€Persistent Organic Molecular Cage with High Selectivity for the Adsorption of CO₂ over N₂. Angewandte Chemie - International Edition, 2010, 49, 6348-6351.	7.2	225

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19	Malleable and Recyclable Thermosets: The Next Generation of Plastics. Matter, 2019, 1, 1456-1493.	5.0	200
20	Template Synthesis of Gold Nanoparticles with an Organic Molecular Cage. Journal of the American Chemical Society, 2014, 136, 1782-1785.	6.6	189
21	Reprocessing and recycling of thermosetting polymers based on bond exchange reactions. RSC Advances, 2014, 4, 10108-10117.	1.7	182
22	Ultraâ€thin Solidâ€State Liâ€Ion Electrolyte Membrane Facilitated by a Selfâ€Healing Polymer Matrix. Advanced Materials, 2015, 27, 6922-6927.	11.1	182
23	Nanofibril Self-Assembly of an Arylene Ethynylene Macrocycle. Journal of the American Chemical Society, 2006, 128, 6576-6577.	6.6	179
24	Arylene Ethynylene Macrocycles Prepared by Precipitation-Driven Alkyne Metathesis. Journal of the American Chemical Society, 2004, 126, 12796-12796.	6.6	161
25	Development of organic porous materials through Schiff-base chemistry. CrystEngComm, 2013, 15, 1484-1499.	1.3	153
26	Highly Active Trialkoxymolybdenum(VI) Alkylidyne Catalysts Synthesized by a Reductive Recycle Strategy. Journal of the American Chemical Society, 2004, 126, 329-335.	6.6	149
27	Influence of stoichiometry on the glass transition and bond exchange reactions in epoxy thermoset polymers. RSC Advances, 2014, 4, 48682-48690.	1.7	128
28	Highly Fluoro-Substituted Covalent Organic Framework and Its Application in Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 42233-42240.	4.0	127
29	Cobalt Porphyrin Functionalized Carbon Nanotubes for Oxygen Reduction. Chemistry of Materials, 2009, 21, 3234-3241.	3.2	126
30	Reaction Pathways Leading to Arylene Ethynylene Macrocycles via Alkyne Metathesis. Journal of the American Chemical Society, 2005, 127, 11863-11870.	6.6	123
31	Mesoporous 2D covalent organic frameworks based on shape-persistent arylene-ethynylene macrocycles. Chemical Science, 2015, 6, 4049-4053.	3.7	118
32	Heterogeneous integration of rigid, soft, and liquid materials for self-healable, recyclable, and reconfigurable wearable electronics. Science Advances, 2020, 6, .	4.7	118
33	Solutionâ€Phase Dynamic Assembly of Permanently Interlocked Aryleneethynylene Cages through Alkyne Metathesis. Angewandte Chemie - International Edition, 2015, 54, 7550-7554.	7.2	117
34	A Tetrameric Cage with D_{2h} Symmetry through Alkyne Metathesis. Angewandte Chemie - International Edition, 2014, 53, 10663-10667.	7.2	110
35	A Truxenoneâ€based Covalent Organic Framework as an Allâ€Solidâ€State Lithiumâ€Ion Battery Cathode with High Capacity. Angewandte Chemie - International Edition, 2020, 59, 20385-20389.	7.2	110
36	A reductive recycle strategy for the facile synthesis of molybdenum(VI) alkylidyne catalysts for alkyne metathesisElectronic supplementary information (ESI) available: spectral data. See http://www.rsc.org/suppdata/cc/b2/b212405j/. Chemical Communications, 2003, , 832-833.	2.2	108

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37	Re-healable polyimine thermosets: polymer composition and moisture sensitivity. Polymer Chemistry, 2016, 7, 7052-7056.	1.9	108
38	Reversible tuning of pore size and CO₂adsorption in azobenzene functionalized porous organic polymers. Chemical Science, 2014, 5, 4957-4961.	3.7	106
39	Synthesis of Î³-graphyne using dynamic covalent chemistry. , 2022, 1, 449-454.		106
40	Cage-templated synthesis of highly stable palladium nanoparticles and their catalytic activities in Suzukiâ€“Miyaura coupling. Chemical Science, 2018, 9, 676-680.	3.7	105
41	Dynamic covalent synthesis of aryleneethynylene cages through alkyne metathesis: dimer, tetramer, or interlocked complex?. Chemical Science, 2016, 7, 3370-3376.	3.7	104
42	Confined growth of ordered organic frameworks at an interface. Chemical Society Reviews, 2020, 49, 4637-4666.	18.7	104
43	Multifunctional Tubular Organic Cageâ€Supported Ultrafine Palladium Nanoparticles for Sequential Catalysis. Angewandte Chemie - International Edition, 2019, 58, 18011-18016.	7.2	103
44	Covalent organic framework-supported Feâ€“TiO₂ nanoparticles as ambient-light-active photocatalysts. Journal of Materials Chemistry A, 2019, 7, 16364-16371.	5.2	103
45	Post-synthetic modification of porous organic cages. Chemical Society Reviews, 2021, 50, 8874-8886.	18.7	98
46	Covalent organic framework based lithium-ion battery: Fundamental, design and characterization. EnergyChem, 2021, 3, 100048.	10.1	94
47	Porous organic polymer material supported palladium nanoparticles. Journal of Materials Chemistry A, 2020, 8, 17360-17391.	5.2	93
48	Synthesis of a conjugated porous Co(<scp>ii</scp>) porphyrinyleneâ€“ethynylene framework through alkyne metathesis and its catalytic activity study. Journal of Materials Chemistry A, 2015, 3, 4954-4959.	5.2	89
49	Introducing A Podand Motif to Alkyne Metathesis Catalyst Design: A Highly Active Multidentate Molybdenum(VI) Catalyst that Resists Alkyne Polymerization. Angewandte Chemie - International Edition, 2011, 50, 3435-3438.	7.2	87
50	Rehealable imideâ€“imine hybrid polymers with full recyclability. Journal of Materials Chemistry A, 2017, 5, 21140-21145.	5.2	84
51	Phosphineâ€Based Covalent Organic Framework for the Controlled Synthesis of Broadâ€Scope Ultrafine Nanoparticles. Small, 2020, 16, e1906005.	5.2	82
52	Single crystals of mechanically entwined helical covalent polymers. Nature Chemistry, 2021, 13, 660-665.	6.6	82
53	Microwave-assisted syntheses of highly CO₂-selective organic cage frameworks (OCFs). Chemical Science, 2012, 3, 874-877.	3.7	78
54	Transformation of Porous Organic Cages and Covalent Organic Frameworks with Efficient Iodine Vapor Capture Performance. Journal of the American Chemical Society, 2022, 144, 12390-12399.	6.6	77

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55	Iron-rich nanoparticle encapsulated, nitrogen doped porous carbon materials as efficient cathode electrocatalyst for microbial fuel cells. Journal of Power Sources, 2016, 315, 302-307.	4.0	76
56	Towards Highly Active and Robust Alkyne Metathesis Catalysts: Recent Developments in Catalyst Design. Angewandte Chemie - International Edition, 2011, 50, 8478-8480.	7.2	74
57	Highly Active Multidentate Alkyne Metathesis Catalysts: Ligandâ€Activity Relationship and Their Applications in Efficient Synthesis of Porphyrinâ€Based Aryleneethynylene Polymers. Advanced Synthesis and Catalysis, 2012, 354, 2073-2078.	2.1	70
58	Application of alkyne metathesis in polymer synthesis. Journal of Materials Chemistry A, 2014, 2, 5986.	5.2	70
59	Multidentate Triphenolsilaneâ€Based Alkyne Metathesis Catalysts. Advanced Synthesis and Catalysis, 2013, 355, 885-890.	2.1	69
60	A High-Yield, One-Step Synthesis ofo-Phenylene Ethynylene Cyclic Trimer via Precipitation-Driven Alkyne Metathesis. Journal of Organic Chemistry, 2005, 70, 10198-10201.	1.7	66
61	Through-Space Ultrafast Photoinduced Electron Transfer Dynamics of a C₇₀-Encapsulated Bisporphyrin Covalent Organic Polyhedron in a Low-Dielectric Medium. Journal of the American Chemical Society, 2017, 139, 4286-4289.	6.6	58
62	Chemomechanics in the Moisture-Induced Malleability of Polyimine-Based Covalent Adaptable Networks. Macromolecules, 2018, 51, 9825-9838.	2.2	58
63	Robust, high-barrier, and fully recyclable cellulose-based plastic replacement enabled by a dynamic imine polymer. Journal of Materials Chemistry A, 2020, 8, 14082-14090.	5.2	57
64	Shape-persistent arylenevinylene macrocycles (AVMs) prepared via acyclic diene metathesis macrocyclization (ADMAC). Chemical Communications, 2010, 46, 8258.	2.2	54
65	Pillar[n]arene-based supramolecular organic frameworks with high hydrocarbon storage and selectivity. Chemical Communications, 2017, 53, 6409-6412.	2.2	54
66	Metallated porphyrin based porous organic polymers as efficient electrocatalysts. Nanoscale, 2015, 7, 18271-18277.	2.8	52
67	Covalent Assembly of Heterosequenced Macrocycles and Molecular Cages through Orthogonal Dynamic Covalent Chemistry (ODCC). Organic Letters, 2013, 15, 4296-4299.	2.4	51
68	Highly efficient one-pot synthesis of hetero-sequenced shape-persistent macrocycles through orthogonal dynamic covalent chemistry (ODCC). Chemical Communications, 2013, 49, 4418-4420.	2.2	50
69	A C84 selective porphyrin macrocycle with an adaptable cavity constructed through alkyne metathesis. Chemical Communications, 2012, 48, 6172.	2.2	49
70	Highly Active Multidentate Ligandâ€Based Alkyne Metathesis Catalysts. Chemistry - A European Journal, 2016, 22, 7959-7963.	1.7	47
71	Separation of Arylenevinylene Macrocycles with a Surfaceâ€Confined Twoâ€Dimensional Covalent Organic Framework. Angewandte Chemie - International Edition, 2018, 57, 8984-8988.	7.2	46
72	By-design molecular architecturesviaalkyne metathesis. Chemical Science, 2021, 12, 9591-9606.	3.7	46

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73	Chemical Mapping of Nanodefects within 2D Covalent Monolayers by Tip-Enhanced Raman Spectroscopy. ACS Nano, 2018, 12, 5021-5029.	7.3	45
74	Desymmetrized Vertex Design toward a Molecular Cage with Unusual Topology. Angewandte Chemie - International Edition, 2020, 59, 20846-20851.	7.2	44
75	Synthesis of Cyclic Porphyrin Trimers through Alkyne Metathesis Cyclooligomerization and Their Hostâ€“Guest Binding Study. Organic Letters, 2016, 18, 2946-2949.	2.4	43
76	A titanium-based porous coordination polymer as a catalyst for chemical fixation of CO₂. Journal of Materials Chemistry A, 2017, 5, 9163-9168.	5.2	43
77	Porous Poly(aryleneethynylene) Networks through Alkyne Metathesis. Chemistry of Materials, 2013, 25, 3718-3723.	3.2	42
78	Design Strategies for Shape-Persistent Covalent Organic Polyhedrons (COPs) through Imine Condensation/Metathesis. Journal of Organic Chemistry, 2012, 77, 7392-7400.	1.7	41
79	Covalent organic framework-supported platinum nanoparticles as efficient electrocatalysts for water reduction. Nanoscale, 2020, 12, 2596-2602.	2.8	41
80	PillarÂ[5]arene/Matrimidâ„¢ materials for high-performance methane purification membranes. Journal of Membrane Science, 2017, 539, 224-228.	4.1	40
81	Roomâ€Temperature Synthesis of Covalent Organic Frameworks with a Boronic Ester Linkage at the Liquid/Solid Interface. Chemistry - A European Journal, 2016, 22, 18412-18418.	1.7	39
82	Rapid Fabrication of Malleable Fiber Reinforced Composites with Vitrimer Powder. ACS Applied Polymer Materials, 2019, 1, 2535-2542.	2.0	39
83	Imparting Functionality and Enhanced Surface Area to a 2D Electrically Conductive MOF via Macrocyclic Linker. Journal of the American Chemical Society, 2022, 144, 10615-10621.	6.6	39
84	Recent development of efficient electrocatalysts derived from porous organic polymers for oxygen reduction reaction. Science China Chemistry, 2017, 60, 999-1006.	4.2	37
85	Recyclable 3D Printing of Polyimine-Based Covalent Adaptable Network Polymers. 3D Printing and Additive Manufacturing, 2019, 6, 31-39.	1.4	34
86	Malleable and Recyclable Conductive MWCNT-Vitrimer Composite for Flexible Electronics. ACS Applied Nano Materials, 2020, 3, 4845-4850.	2.4	34
87	A sustainable manufacturing method of thermoset composites based on covalent adaptable network polymers. Composites Part B: Engineering, 2021, 221, 109004.	5.9	33
88	Tuning the physical properties of malleable and recyclable polyimine thermosets: the effect of solvent and monomer concentration. RSC Advances, 2017, 7, 48303-48307.	1.7	32
89	A pillar[5]arene-based covalent organic framework with pre-encoded selective hostâ€“guest recognition. Chemical Science, 2021, 12, 13316-13320.	3.7	32
90	Solution processable polydiacetylenes (PDAs) through acyclic enediyne metathesis polymerization. Chemical Science, 2013, 4, 3649.	3.7	31

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91	Shapeâ€Persistent Arylene Ethynylene Organic Hosts for Fullerenes. Chemical Record, 2015, 15, 97-106.	2.9	31
92	Multifunctional Tubular Organic Cageâ€Supported Ultrafine Palladium Nanoparticles for Sequential Catalysis. Angewandte Chemie, 2019, 131, 18179-18184.	1.6	30
93	Multiscale optimization of Li-ion diffusion in solid lithium metal batteries via ion conductive metalâ€“organic frameworks. Nanoscale, 2020, 12, 6976-6982.	2.8	28
94	Highly active alkyne metathesis catalysts operating under open air condition. Nature Communications, 2021, 12, 1136.	5.8	28
95	Ordered Mesoporous Silica Pyrolyzed from Single-Source Self-Assembled Organicâ€“Inorganic Giant Surfactants. Journal of the American Chemical Society, 2021, 143, 12935-12942.	6.6	28
96	Semiconducting carbon nanotube and covalent organic polyhedronâ€“C60 nanohybrids for light harvesting. Chemical Communications, 2012, 48, 8377.	2.2	27
97	Surfaceâ€Confined Dynamic Covalent System Driven by Olefin Metathesis. Angewandte Chemie - International Edition, 2018, 57, 1869-1873.	7.2	27
98	Synthesis of Metallic Nanoparticles Using Closedâ€Shell Structures as Templates. Chemistry - an Asian Journal, 2018, 13, 362-372.	1.7	27
99	3D printing of continuous fiber-reinforced thermoset composites. Additive Manufacturing, 2021, 40, 101921.	1.7	27
100	Interconversion of molecular face-rotating polyhedra through turning inside out. Chemical Communications, 2017, 53, 8956-8959.	2.2	25
101	Highly CO₂ selective pillar[n]arene-based supramolecular organic frameworks. Supramolecular Chemistry, 2018, 30, 648-654.	1.5	23
102	Effects of bond exchange reactions and relaxation of polymer chains on the thermomechanical behaviors of covalent adaptable network polymers. Polymer, 2018, 153, 43-51.	1.8	23
103	Highly tunable periodic imidazole-based mesoporous polymers as cooperative catalysts for efficient carbon dioxide fixation. Catalysis Science and Technology, 2019, 9, 1030-1038.	2.1	23
104	Rapid Fabrication of Fiber-Reinforced Polyimine Composites with Reprocessability, Repairability, and Recyclability. ACS Applied Polymer Materials, 2021, 3, 5808-5817.	2.0	23
105	Malleable and Recyclable Vitrimerâ€“Graphene Aerogel Composite with High Electrical Conductivity. ACS Applied Electronic Materials, 2021, 3, 1178-1183.	2.0	21
106	Poly(aryleneethynylene)s: Properties, Applications and Synthesis Through Alkyne Metathesis. Topics in Current Chemistry, 2017, 375, 69.	3.0	20
107	Highly C2/C1-Selective Covalent Organic Frameworks Substituted with Azo Groups. ACS Applied Materials & Interfaces, 2020, 12, 51517-51522.	4.0	20
108	Readily useable bulk phenoxazine-based covalent organic framework cathode materials with superior kinetics and high redox potentials. Journal of Materials Chemistry A, 2021, 9, 10661-10665.	5.2	20

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109	Size-Controlled Growth of Silver Nanoparticles onto Functionalized Ordered Mesoporous Polymers for Efficient CO₂ Upgrading. ACS Applied Materials & Interfaces, 2019, 11, 44241-44248.	4.0	19
110	Stretchable, Rehealable, Recyclable, and Reconfigurable Integrated Strain Sensor for Joint Motion and Respiration Monitoring. Research, 2021, 2021, 9846036.	2.8	19
111	Controlled growth of ultrafine metal nanoparticles mediated by solid supports. Nanoscale Advances, 2021, 3, 1865-1886.	2.2	18
112	Reshapeable, rehealable and recyclable sensor fabricated by direct ink writing of conductive composites based on covalent adaptable network polymers. International Journal of Extreme Manufacturing, 2022, 4, 015301.	6.3	18
113	Production and closed-loop recycling of biomass-based malleable materials. Science China Materials, 2020, 63, 2071-2078.	3.5	17
114	Highly stable dioxin-linked metallophthalocyanine covalent organic frameworks. Chinese Chemical Letters, 2021, 32, 3799-3802.	4.8	17
115	Aromatic-rich hydrocarbon porous networks through alkyne metathesis. Materials Chemistry Frontiers, 2017, 1, 1369-1372.	3.2	16
116	Stable Lithium Deposition Using a Self-Optimizing Solid Electrolyte Composite. Journal of the Electrochemical Society, 2017, 164, A2962-A2966.	1.3	12
117	Mechanics of vitrimer particle compression and fusion under heat press. International Journal of Mechanical Sciences, 2021, 201, 106466.	3.6	11
118	Controlled Synthesis of Palladium Nanoparticles with Size-Dependent Catalytic Activities Enabled by Organic Molecular Cages. Inorganic Chemistry, 2021, 60, 12517-12525.	1.9	11
119	Malleable and recyclable imideâ€“imine hybrid thermosets: influence of imide structure on material property. Materials Advances, 2021, 2, 4333-4338.	2.6	9
120	Synthesis of Small-Molecule/DNA Hybrids through On-Bead Amide-Coupling Approach. Journal of Organic Chemistry, 2017, 82, 10803-10811.	1.7	8
121	Inorganic nanocrystal-dynamic porous polymer assemblies with effective energy transfer for sensitive diagnosis of urine copper. Chemical Science, 2020, 11, 12187-12193.	3.7	8
122	Truxene-based covalent organic polyhedrons constructed through alkyne metathesis. Organic Chemistry Frontiers, 2021, 8, 4723-4729.	2.3	8
123	Monolithic polyimine vitrimer/graphene aerogel composites. Chinese Chemical Letters, 2023, 34, 107363.	4.8	8
124	Advances and challenges in user-friendly alkyne metathesis catalysts. Trends in Chemistry, 2022, 4, 540-553.	4.4	8
125	Investigating the Self-Healing of Dynamic Covalent Thermoset Polyimine and Its Nanocomposites. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	7
126	Desymmetrized Vertex Design toward a Molecular Cage with Unusual Topology. Angewandte Chemie, 2020, 132, 21032-21037.	1.6	7

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127	Cage-Confinement Induced Emission Enhancement. Journal of Physical Chemistry Letters, 2022, 13, 6604-6611.	2.1	7
128	Surfaceâ€Confined Dynamic Covalent System Driven by Olefin Metathesis. Angewandte Chemie, 2018, 130, 1887-1891.	1.6	6
129	A Truxenoneâ€based Covalent Organic Framework as an Allâ€Solidâ€State Lithiumâ€Ion Battery Cathode with High Capacity. Angewandte Chemie, 2020, 132, 20565-20569.	1.6	5
130	Pillar[6]areneâ€based Molecular Trap with Unusual Conformation and Topology. Israel Journal of Chemistry, 2018, 58, 1261-1264.	1.0	3
131	Functionalized Conjugated Microporous Polymers for Growing Sub-3 nm Pd Nanoparticles. ACS Applied Nano Materials, 2022, 5, 10090-10096.	2.4	3
132	Poly(aryleneethynylene)s: Properties, Applications and Synthesis Through Alkyne Metathesis. Topics in Current Chemistry Collections, 2017, , 73-96.	0.2	2