

Zhi-Cong Shi

List of Publications by Year in descending order

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papers

5,711
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61984

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85541

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docs citations

113
times ranked

6650
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards wearable electronic devices: A quasi-solid-state aqueous lithium-ion battery with outstanding stability, flexibility, safety and breathability. <i>Nano Energy</i> , 2018, 44, 164-173.	16.0	228
2	Self-Supported and Flexible Sulfur Cathode Enabled via Synergistic Confinement for High-Energy-Density Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2019, 31, e1902228.	21.0	216
3	One-pot synthesis of ZnFe ₂ O ₄ /C hollow spheres as superior anode materials for lithium ion batteries. <i>Chemical Communications</i> , 2011, 47, 6828.	4.1	214
4	Graphene-wrapped chromium-MOF(MIL-101)/sulfur composite for performance improvement of high-rate rechargeable Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13509-13512.	10.3	171
5	Surface engineering of commercial Ni foams for stable Li metal anodes. <i>Energy Storage Materials</i> , 2019, 23, 547-555.	18.0	148
6	Porous Mn ₂ O ₃ microsphere as a superior anode material for lithium ion batteries. <i>RSC Advances</i> , 2012, 2, 4645.	3.6	142
7	A flexible rechargeable zinc-ion wire-shaped battery with shape memory function. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8549-8557.	10.3	138
8	Controllable synthesis of spinel nano-ZnMn ₂ O ₄ via a single source precursor route and its high capacity retention as anode material for lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2011, 21, 11987.	6.7	130
9	Improving the electrochemical performance of the LiNi _{0.5} Mn _{1.5} O ₄ spinel by polypyrrole coating as a cathode material for the lithium-ion battery. <i>Journal of Materials Chemistry A</i> , 2015, 3, 404-411.	10.3	130
10	Hollow Fe ₃ O ₄ /C spheres as superior lithium storage materials. <i>Journal of Power Sources</i> , 2012, 197, 305-309.	7.8	111
11	The effects of persulfate treatment on the electrochemical properties of Li[Li _{0.2} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ cathode material. <i>Journal of Power Sources</i> , 2013, 221, 108-113.	7.8	110
12	Dual-Phase Carbon with Co Single Atoms and Nanoparticles as a Bifunctional Oxygen Electrocatalyst for Rechargeable Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2103360.	14.9	107
13	Graphene-encapsulated sulfur (GES) composites with a core-shell structure as superior cathode materials for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2013, 1, 15142.	10.3	102
14	Mixed-conducting interlayer boosting the electrochemical performance of Ni-rich layered oxide cathode materials for lithium ion batteries. <i>Journal of Power Sources</i> , 2019, 421, 91-99.	7.8	101
15	Lithiophobic-lithiophilic composite architecture through co-deposition technology toward high-performance lithium metal batteries. <i>Nano Energy</i> , 2019, 63, 103854.	16.0	100
16	Rechargeable Zn-ion batteries with high power and energy densities: a two-electron reaction pathway in birnessite MnO ₂ cathode materials. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1975-1985.	10.3	99
17	Enhancing ORR/OER active sites through lattice distortion of Fe-enriched FeNi ₃ intermetallic nanoparticles doped N-doped carbon for high-performance rechargeable Zn-air battery. <i>Journal of Colloid and Interface Science</i> , 2021, 582, 977-990.	9.4	99
18	A three-dimensional LiFePO ₄ /carbon nanotubes/graphene composite as a cathode material for lithium-ion batteries with superior high-rate performance. <i>Journal of Alloys and Compounds</i> , 2015, 626, 280-286.	5.5	97

19	Hierarchically Bicontinuous Porous Copper as Advanced 3D Skeleton for Stable Lithium Storage. ACS Applied Materials & Interfaces, 2018, 10, 13552-13561.	8.0	95
20	Lithium Host:Advanced architecture components for lithium metal anode. Energy Storage Materials, 2021, 38, 276-298.	18.0	89
21	Inhibition of brass corrosion in sodium chloride solutions by self-assembled silane films. Corrosion Science, 2011, 53, 4273-4281.	6.6	87
22	Nitrogen-Doped Carbon-Encapsulated SnO ₂ @Sn Nanoparticles Uniformly Grafted on Three-Dimensional Graphene-like Networks as Anode for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 197-207.	8.0	84
23	Synthesis, characterization and electrochemical performance of mesoporous FePO4 as cathode material for rechargeable lithium batteries. Electrochimica Acta, 2008, 53, 2665-2673.	5.2	81
24	Interface Engineering of NixSy@MnOxHy Nanorods to Efficiently Enhance Overall-Water-Splitting Activity and Stability. Nano-Micro Letters, 2022, 14, 120.	27.0	79
25	A flexible composite solid electrolyte with a highly stable interphase for dendrite-free and durable all-solid-state lithium metal batteries. Journal of Materials Chemistry A, 2020, 8, 18043-18054.	10.3	77
26	Superior Stability Secured by a Four-Phase Cathode Electrolyte Interface on a Ni-Rich Cathode for Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 36742-36750.	8.0	76
27	Several highly efficient catalysts for Pt-free and FTO-free counter electrodes of dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 4009.	6.7	73
28	Boosting the electrochemical performance of 3D composite lithium metal anodes through synergistic structure and interface engineering. Energy Storage Materials, 2020, 26, 56-64.	18.0	73
29	Effect of crystallographic orientation on the discharge and corrosion behaviour of AP65 magnesium alloy anodes. Corrosion Science, 2018, 144, 107-126.	6.6	70
30	Wrought Mg-Al-Pb-RE alloy strips as the anodes for Mg-air batteries. Journal of Power Sources, 2019, 436, 226855.	7.8	70
31	The critical role of inorganic nanofillers in solid polymer composite electrolyte for Li ⁺ transportation. , 2021, 3, 482-508.		68
32	Porous LiMn2O4 microspheres as durable high power cathode materials for lithium ion batteries. Journal of Materials Chemistry A, 2013, 1, 8170.	10.3	65
33	Novel Germanium/Polypyrrole Composite for High Power Lithium-ion Batteries. Scientific Reports, 2014, 4, 6095.	3.3	63
34	Ultrasonic Plasma Engineering Toward Facile Synthesis of Single-Atom M-N4/N-Doped Carbon (M=Fe), Tj ETQq0 O 0 rgBT /C 13, 60.	27.0	63
35	Li Alginate-Based Artificial SEI Layer for Stable Lithium Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 37726-37731.	8.0	60

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37	Mn ₃ O ₄ Quantum Dots Supported on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as Oxygen Reduction Electrocatalysts for High-Performance Zn–Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 23900-23909.	8.0	55
38	Constructing effective TiO ₂ nano-coating for high-voltage Ni-rich cathode materials for lithium ion batteries by precise kinetic control. <i>Journal of Power Sources</i> , 2020, 477, 228745.	7.8	55
39	MnO _x -Decorated Nickel–Iron Phosphides Nanosheets: Interface Modifications for Robust Overall Water Splitting at Ultra-High Current Densities. <i>Small</i> , 2022, 18, e2105803.	10.0	55
40	Heterojunction TiO ₂ @TiOF ₂ nanosheets as superior anode materials for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5720-5729.	10.3	51
41	Facile synthesis of laminate-structured graphene sheet–Fe ₃ O ₄ nanocomposites with superior high reversible specific capacity and cyclic stability for lithium-ion batteries. <i>RSC Advances</i> , 2012, 2, 10680.	3.6	50
42	Co ₃ O ₄ Nanoparticles Anchored on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as an Enhanced Oxygen Electrocatalyst for the Rechargeable and Flexible Solid-State Zn–Air Battery. <i>ACS Applied Energy Materials</i> , 2019, 2, 4428-4438.	5.1	47
43	Synthesis and characterization of mesoporous titanium pyrophosphate as lithium intercalation electrode materials. <i>Microporous and Mesoporous Materials</i> , 2006, 88, 232-237.	4.4	44
44	Walnut shell – Derived activated carbon: Synthesis and its application in the sulfur cathode for lithium–sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2017, 718, 373-378.	5.5	44
45	Mesoporous FePO ₄ with Enhanced Electrochemical Performance as Cathode Materials of Rechargeable Lithium Batteries. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, A396.	2.2	43
46	Discharge and corrosion behaviour of AP65 magnesium anode plates with different rolling reductions. <i>RSC Advances</i> , 2017, 7, 53226-53235.	3.6	43
47	Sub-micrometer-sized LiMn _{1.5} Ni _{0.5} O ₄ spheres as high rate cathode materials for long-life lithium ion batteries. <i>Electrochemistry Communications</i> , 2013, 27, 92-95.	4.7	41
48	Facile one-pot synthesis of low cost MnO ₂ nanosheet/Super P Li composites with high oxygen reduction reaction activity for Zn-air batteries. <i>Journal of Power Sources</i> , 2020, 448, 227385.	7.8	37
49	AZ31 magnesium alloy with ultrafine grains as the anode for Mg-air battery. <i>Electrochimica Acta</i> , 2021, 378, 138135.	5.2	37
50	Self-supported Zn ₃ P ₂ nanowires-assembly bundles grafted on Ti foil as an advanced integrated electrodes for lithium/sodium ion batteries with high performances. <i>Journal of Alloys and Compounds</i> , 2017, 724, 932-939.	5.5	36
51	Synergies of the crystallinity and conductive agents on the electrochemical properties of the hollow Fe ₃ O ₄ spheres. <i>Electrochimica Acta</i> , 2012, 76, 495-503.	5.2	35
52	Facile low-temperature synthesis of hematite quantum dots anchored on a three-dimensional ultra-porous graphene-like framework as advanced anode materials for asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11247-11255.	10.3	35
53	Layered GeP-black P(Ge ₂ P ₃): An advanced binary-phase anode for Li/Na-storage. <i>Ceramics International</i> , 2019, 45, 15711-15714.	4.8	32
54	Protonic membrane for fuel cell for co-generation of power and ethylene. <i>Journal of Power Sources</i> , 2008, 176, 122-127.	7.8	31

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55	Rechargeable Aqueous Mn ²⁺ -Metal Battery Enabled by Inorganic–Organic Interfaces. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	31
56	Improvement in capacity retention of cathode material for high power density lithium ion batteries: The route of surface coating. <i>Applied Energy</i> , 2017, 194, 540-548.	10.1	30
57	Ni(OH) ₂ nanoflakes supported on 3D hierarchically nanoporous gold/Ni foam as superior electrodes for supercapacitors. <i>Science China Materials</i> , 2018, 61, 353-362.	6.3	29
58	Enhanced Electrocatalytic Stability of Platinum Nanoparticles Supported on Sulfur-Doped Carbon using in-situ Solution Plasma. <i>Scientific Reports</i> , 2019, 9, 12704.	3.3	29
59	Flexible free-standing sulfurized polyacrylonitrile electrode for stable Li/Na storage. <i>Electrochimica Acta</i> , 2020, 333, 135493.	5.2	29
60	A P3-Type K _{1/2} Mn _{5/6} Mg _{1/12} Ni _{1/12} O ₂ Cathode Material for Potassium-Ion Batteries with High Structural Reversibility Secured by the Mg–Ni Pinning Effect. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 28369-28377.	8.0	29
61	Nano-sized cathode material LiMn _{0.5} Fe _{0.5} PO ₄ /C synthesized via improved sol-gel routine and its magnetic and electrochemical properties. <i>Electrochimica Acta</i> , 2017, 255, 205-211.	5.2	27
62	Poly-active centric Co ₃ O ₄ -CeO ₂ /Co-N-C composites as superior oxygen reduction catalysts for Zn-air batteries. <i>Science China Materials</i> , 2021, 64, 73-84.	6.3	27
63	Pseudocapacitive Transparent/Flexible Supercapacitor based on Graphene wrapped Ni(OH) ₂ Nanosheet Transparent Film Produced using Scalable Bio-inspired Methods. <i>Electrochimica Acta</i> , 2016, 219, 61-69.	5.2	26
64	3D hexapod-shaped Co-ZIFs-S derived co nanoparticles embedded into nitrogen and sulfur co-doped carbon decorated with ruthenium nanoparticles as efficient catalyst for rechargeable lithium oxygen battery. <i>Nano Energy</i> , 2022, 91, 106644.	16.0	24
65	Î-MnO ₂ nanowires supported on carbon black with oxygen-containing functional groups for enhanced electrocatalytic oxygen reduction reaction. <i>Journal of Alloys and Compounds</i> , 2020, 846, 156396.	5.5	23
66	SiO ₂ nanofiber composite gel polymer electrolyte by in-situ polymerization for stable Li metal batteries. <i>Chinese Chemical Letters</i> , 2023, 34, 107370.	9.0	23
67	Graphene-hollow-cubes with network-faces assembled a 3D micro-structured transparent and free-standing film for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16803-16811.	10.3	22
68	NaCl multistage-recrystallization-induced formation of 3D micro-structured ribbon-like graphene based films for high performance flexible/transparent supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14595-14603.	10.3	21
69	O ₃ -Type NaCrO ₂ as a Superior Cathode Material for Sodium/Potassium-Ion Batteries Ensured by High Structural Reversibility. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 22635-22645.	8.0	20
70	Facile fabrication of graphene/nickel oxide composite with superior supercapacitance performance by using alcohols-reduced graphene as substrate. <i>Journal of Alloys and Compounds</i> , 2015, 644, 165-171.	5.5	19
71	CoFe nanoparticles dispersed in Co/Fe-N-C support with meso- and macroporous structures as the high-performance catalyst boosting the oxygen reduction reaction for Al/Mg-air batteries. <i>Journal of Power Sources</i> , 2022, 517, 230707.	7.8	19
72	Heterogeneous Bimetallic Organic Coordination Polymer-Derived Co/Fe@NC Bifunctional Catalysts for Rechargeable Li–O ₂ Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 5459-5467.	8.0	19

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73	Rational synthesis of MnO ₂ @CMK/S composite as cathode materials for lithium-sulfur batteries. <i>Materials Letters</i> , 2017, 195, 236-239.	2.6	18
74	Synthesis of Co Ni ₁ -S ₂ electrode material with a greatly enhanced electrochemical performance for supercapacitors by in-situ solid-state transformation. <i>Journal of Alloys and Compounds</i> , 2019, 803, 950-957.	5.5	18
75	Ternary Cu ₂ P ₇ /CuP ₂ /C composite: A high-performance multi-phase anode material for Li/Na-ion batteries endowed by heterointerfaces. <i>Journal of Alloys and Compounds</i> , 2019, 803, 804-811.	5.5	18
76	Constructing High Conductive Composite Coating with TiN and Polypyrrole to Improve the Performance of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ at High Cutoff Voltage of 4.5 V. <i>ACS Applied Energy Materials</i> , 2021, 4, 10012-10024.	5.1	17
77	Effect of LiTFSI and LiFSI on Cycling Performance of Lithium Metal Batteries Using Thermoplastic Polyurethane/Halloysite Nanotubes Solid Electrolyte. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021, 34, 359-372.	2.9	16
78	Superorganophilic MAF-6/PP Composite Separator Boosts Lithium Metal Anode Performance. <i>Energy Storage Materials</i> , 2021, 37, 387-395.	18.0	16
79	Knitting a sweater with UV-induced in situ polymerization of poly(pyrrole-co-citral nitrile) on Ni-rich layer oxide cathode materials for lithium ion batteries. <i>Journal of Power Sources</i> , 2022, 520, 230768.	7.8	16
80	Enhanced ionic conductivity of Li _{3.5} Si _{0.5} P _{0.5} O ₄ with addition of lithium borate. <i>Solid State Ionics</i> , 2015, 283, 109-114.	2.7	14
81	P3-Type K _{0.45} Co _{1/12} Mg _{1/12} Mn _{5/6} O ₂ as a superior cathode material for potassium-ion batteries with high structural reversibility ensured by Co-Mg Co-substitution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17261-17269.	10.3	14
82	Recent Progress and Challenges in Multivalent Metal-Ion Hybrid Capacitors. <i>Batteries and Supercaps</i> , 2021, 4, 1201-1220.	4.7	14
83	NiS ₂ nanosheet arrays on stainless steel foil as binder-free anode for high-power sodium-ion batteries. <i>Rare Metals</i> , 2022, 41, 1294-1303.	7.1	14
84	Simultaneous heterostructure engineering and Mn doping modulation of Ni ₂ P nanosheet arrays for enhanced electrocatalytic water splitting. <i>Science China Materials</i> , 2022, 65, 1814-1824.	6.3	14
85	Improving the formation and protective properties of La-conversion coatings on brass by use of La ₂ O ₃ nanoparticle incorporation with electrodeposition. <i>Corrosion Science</i> , 2011, 53, 3821-3831.	6.6	13
86	Tri-functional coating to enhance the capacity retention of LiNi _{0.5} Mn _{1.5} O ₄ for high power lithium ion battery. <i>Materials Letters</i> , 2018, 214, 68-71.	2.6	13
87	Nanocomposites LiMn _x Fe _{1-x} PO ₄ /C synthesized via freeze drying assisted sol-gel routine and their magnetic and electrochemical properties. <i>Journal of Alloys and Compounds</i> , 2019, 779, 339-346.	5.5	13
88	Building a stable artificial solid electrolyte interphase on lithium metal anodes toward long-life Li-O ₂ batteries. <i>Journal of Power Sources</i> , 2022, 540, 231603.	7.8	13
89	Improved rate and cycle performance of nano-sized 5LiFePO ₄ ·Li ₃ V ₂ (PO ₄) ₃ /C via high-energy ball milling assisted carbothermal reduction. <i>Journal of Alloys and Compounds</i> , 2017, 719, 281-287.	5.5	12
90	Nanocomposite LiFePO ₄ ·Li ₃ V ₂ (PO ₄) ₃ /C synthesized by freeze-drying assisted sol-gel method and its magnetic and electrochemical properties. <i>Science China Materials</i> , 2018, 61, 39-47.	6.3	10

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91	Gel formation and transformation of Moxidectin during the anti-solvent crystallization. Journal of Crystal Growth, 2017, 469, 8-12.	1.5	9
92	Lithium-Sulfur Batteries: Self-Supported and Flexible Sulfur Cathode Enabled via Synergistic Confinement for High-Energy-Density Lithium-Sulfur Batteries (Adv. Mater. 33/2019). Advanced Materials, 2019, 31, 1970236.	21.0	8
93	Cation-disorder zinc blende $\text{Zn}_{0.5}\text{Ge}_{0.5}\text{P}$ compound and $\text{Zn}_{0.5}\text{Ge}_{0.5}\text{P}$ -Ti-C composite as high-performance anodes for Li-ion batteries. Journal of Materials Chemistry A, 2021, 9, 9124-9133.	10.3	8
94	Dynamic behavior of binary component ion-exchange displacement chromatography of proteins visualized by confocal laser scanning microscopy. Journal of Chromatography A, 2012, 1257, 48-57.	3.7	7
95	AS61 Magnesium Alloy with Nano-Scale Mg_2Sn Phase as a Novel Anode for Primary Aqueous Magnesium Battery. Journal of the Electrochemical Society, 2021, 168, 100537.	2.9	7
96	Studies of the conversion coatings formed by combined use of lanthanum salt and benzotriazole on commercial brass. Anti-Corrosion Methods and Materials, 2012, 59, 32-38.	1.5	6
97	Cu ₂ P7-black P-MWCNTs (CuP5/MWCNTs): An advanced hybrid anode for Li/Na-ion batteries. Materials Letters, 2019, 253, 263-267.	2.6	6
98	GO@Se@Ni Cathode Materials for Lithium-Selenium Battery. Journal of the Electrochemical Society, 2019, 166, A5259-A5264.	2.9	6
99	Improving Li Plating Behaviors Through Cu-Sn Alloy-Coated Current Collector for Dendrite-Free Lithium Metal Anodes. Acta Metallurgica Sinica (English Letters), 2021, 34, 354-358.	2.9	6
100	Three-dimensional hierarchical $\text{Ca}_3\text{Co}_4\text{O}_9$ hollow fiber network as high performance anode material for lithium-ion battery. Science China Technological Sciences, 2021, 64, 673-679.	4.0	5
101	Proton conductive YSZ-phosphate composite electrolyte for H ₂ S SOFC. Ceramics International, 2010, 36, 2163-2167.	4.8	4
102	Studies of the Conversion Coatings Formed by Combined Use of Lanthanum Salt and Benzotriazole on Commercial Brass. Advanced Materials Research, 0, 239-242, 214-218.	0.3	4
103	Synthesis of sub-micrometer lithium iron phosphate particles using supercritical hydrothermal method for lithium ion batteries. Journal of Shanghai Jiaotong University (Science), 2012, 17, 517-522.	0.9	4
104	Three-dimensional graphene-wrapped porous carbon/sulfur composite for cathode of lithium-sulfur battery. SN Applied Sciences, 2020, 2, 1.	2.9	3
105	Mixed ionic/electronic conducting nanosheet arrays for stable lithium storage. Nanotechnology, 2021, 32, 475703.	2.6	3
106	Improving the protective properties of La-conversion coating on Zn-brass surface by the combined use of $\text{La}_{2/3}\text{O}_3$ nanoparticles incorporation and electrodeposition. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 1133-1140.	1.5	2
107	Synthesis of spinel LiMn_2O_4 microspheres with durable high rate capability. Transactions of Nonferrous Metals Society of China, 2012, 22, 2541-2547.	4.2	2
108	Spinel Oxide Cathode Material for High Power Lithium Ion Batteries for Electrical Vehicles. Energy Procedia, 2016, 88, 689-692.	1.8	1

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109	In situ growth of NiS ₂ nanosheet array on Ni foil as cathode to improve the performance of lithium/sodium-sulfur batteries. Science China Technological Sciences, 0, , 1.	4.0	0
110	Rechargeable Aqueous Mn-Metal Battery Enabled by Inorganic-Organic Interfaces. Angewandte Chemie, 2022, 134, .	2.0	0