

# Qian Miao

## List of Publications by Year in descending order

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127  
papers

8,761  
citations

34016

52  
h-index

45213

90  
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148  
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148  
docs citations

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times ranked

8012  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-assembled dipoles of <i>o</i> -carborane on gate oxide tuning charge carriers in organic field effect transistors. <i>Journal of Materials Chemistry C</i> , 2022, 10, 2690-2695.	2.7	2
2	Synthesis, Structures and Properties of Bis(naphthocyclobuta)pyrenes. <i>European Journal of Organic Chemistry</i> , 2022, 2022, e202101315.	1.2	4
3	A Near-Infrared Absorbing and Emissive Quadruple Helicene Enabled by the Scholl Reaction of Perylene. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	50
4	A Near-Infrared Absorbing and Emissive Quadruple Helicene Enabled by the Scholl Reaction of Perylene. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	23
5	Synthesis, aromatization and cavities of an oxanorbornene-fused dibenzo[ <i>de</i> , <i>qr</i> ]tetracene nanobox. <i>Chemical Science</i> , 2022, 13, 2280-2285.	3.7	12
6	Sensitivity of gas sensors enhanced by functionalization of hexabenzoperylene in solution-processed monolayer organic field effect transistors. <i>Chemical Communications</i> , 2022, 58, 7046-7049.	2.2	3
7	Organic Heteroepitaxy Growth of High-Performance Responsive Thin Films with Solution Shearing Crystals as Templates. , 2022, 4, 1314-1321.		1
8	Synthesis of a Hydrogenated Zigzag Carbon Nanobelt. <i>CCS Chemistry</i> , 2021, 3, 613-619.	4.6	29
9	Charging a Negatively Curved Nanographene and Its Covalent Network. <i>Journal of the American Chemical Society</i> , 2021, 143, 5231-5238.	6.6	42
10	Synthesis of Zigzag Carbon Nanobelts through Scholl Reactions. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10311-10318.	7.2	67
11	Synthesis of Zigzag Carbon Nanobelts through Scholl Reactions. <i>Angewandte Chemie</i> , 2021, 133, 10399-10406.	1.6	28
12	Rearrangements come to Scholl. <i>Nature Reviews Chemistry</i> , 2021, 5, 602-603.	13.8	11
13	Design, Synthesis and Hydrogen Bonding of B <sub>3</sub> N <sub>6</sub> -[4]Triangulene. <i>Angewandte Chemie</i> , 2021, 133, 21459-21464.	1.6	4
14	Design, Synthesis and Hydrogen Bonding of B <sub>3</sub> N <sub>6</sub> -[4]Triangulene. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21289-21294.	7.2	23
15	Carbazole-Fused Polycyclic Aromatics Enabled by Regioselective Scholl Reactions. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24124-24130.	7.2	24
16	Trifluoromethylation of Anthraquinones for n-Type Organic Semiconductors in Field Effect Transistors. <i>Journal of Organic Chemistry</i> , 2020, 85, 44-51.	1.7	14
17	Interlayer Cross-Linked 2D Perovskite Solar Cell with Uniform Phase Distribution and Increased Exciton Coupling. <i>Solar Rrl</i> , 2020, 4, 1900578.	3.1	39
18	An 80-Carbon Aromatic Saddle Enabled by a Naphthalene-Directed Scholl Reaction. <i>Organic Materials</i> , 2020, 02, 248-252.	1.0	12

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19	Recent advances and attempts in synthesis of conjugated nanobelts. <i>Journal of Physical Organic Chemistry</i> , 2020, 33, e4145.	0.9	45
20	Structured and functionalized organic semiconductors for chemical and biological sensors based on organic field effect transistors. <i>Materials Chemistry Frontiers</i> , 2020, 4, 3505-3520.	3.2	42
21	Anodization for Simplified Processing and Efficient Charge Transport in Vertical Organic Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2020, 30, 2001703.	7.8	6
22	Insulating Polymers for Enhancing the Efficiency of Nonfullerene Organic Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000013.	3.1	17
23	Revisiting Indolo[3,2- <i>b</i> ]carbazole: Synthesis, Structures, Properties, and Applications. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9678-9683.	7.2	27
24	Revisiting Indolo[3,2- <i>b</i> ]carbazole: Synthesis, Structures, Properties, and Applications. <i>Angewandte Chemie</i> , 2020, 132, 9765-9770.	1.6	11
25	Control of polymorphism in solution-processed organic thin film transistors by self-assembled monolayers. <i>Science China Chemistry</i> , 2020, 63, 1221-1229.	4.2	11
26	A Transfer Method for High-Mobility, Bias-Stable, and Flexible Organic Field-Effect Transistors. <i>Advanced Materials Technologies</i> , 2020, 5, 2000169.	3.0	14
27	Introduction of Eight-Membered Rings to Polycyclic Arenes by Ring Expansion. <i>Chinese Journal of Organic Chemistry</i> , 2020, 40, 3347.	0.6	2
28	Crystal Engineering of Biphenylene-Containing Acenes for High-Mobility Organic Semiconductors. <i>Journal of the American Chemical Society</i> , 2019, 141, 3589-3596.	6.6	43
29	Synthesis, Structures, and Properties of Heptabenzo[7]circulene and Octabenzo[8]circulene. <i>Journal of the American Chemical Society</i> , 2019, 141, 9680-9686.	6.6	116
30	Organic Heterojunctions Formed by Interfacing Two Single Crystals from a Mixed Solution. <i>Journal of the American Chemical Society</i> , 2019, 141, 10007-10015.	6.6	31
31	A ketone-functionalized aromatic saddle as a potential building block for negatively curved carbon nanobelts. <i>Chinese Chemical Letters</i> , 2019, 30, 1506-1508.	4.8	8
32	Efficiency enhancement of organic photovoltaics by introducing high-mobility curved small-molecule semiconductors as additives. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12740-12750.	5.2	8
33	Synthesis of Tribenzo[ <i>a</i> , <i>c</i> , <i>e</i> ]cyclooctene Oligomers: Toward Negatively Curved Nanocarbons. <i>ChemPlusChem</i> , 2019, 84, 627-629.	1.3	12
34	Synthesis of Armchair and Chiral Carbon Nanobelts. <i>CheM</i> , 2019, 5, 838-847.	5.8	167
35	A Tetraazapentacene-“Pyrene Belt: Toward Synthesis of N-Doped Zigzag Carbon Nanobelts. <i>Organic Letters</i> , 2019, 21, 10120-10124.	2.4	45
36	Tertiary Amines Differentiated from Primary and Secondary Amines by Active Ester-Functionalized Hexabenzoperylene in Field Effect Transistors. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1676-1680.	1.7	15

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37	Recent Progress in Chemistry of Multiple Helicenes. <i>Chemistry - an Asian Journal</i> , 2018, 13, 884-894.	1.7	182
38	A Dipleiadiene-Embedded Aromatic Saddle Consisting of 86 Carbon Atoms. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1581-1586.	7.2	112
39	A Dipleiadiene-Embedded Aromatic Saddle Consisting of 86 Carbon Atoms. <i>Angewandte Chemie</i> , 2018, 130, 1597-1602.	1.6	44
40	Functionalized $\pi$ -Stacks of Hexabenzoperylene as a Platform for Chemical and Biological Sensing. <i>CheM</i> , 2018, 4, 1416-1426.	5.8	38
41	Connecting two phenazines with a four-membered ring: the synthesis, properties and applications of cyclobuta[1,2- <i>b</i> :3,4- <i>b'</i> ]-diphenazines. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3651-3657.	2.7	29
42	Recent progress in interface engineering of organic thin film transistors with self-assembled monolayers. <i>Materials Chemistry Frontiers</i> , 2018, 2, 11-21.	3.2	65
43	Stable and Efficient 3D-2D Perovskite-Perovskite Planar Heterojunction Solar Cell without Organic Hole Transport Layer. <i>Joule</i> , 2018, 2, 2706-2721.	11.7	124
44	A Trefoil Macrocyclic Synthesized by 3-Fold Benzannulation. <i>Organic Letters</i> , 2018, 20, 6952-6956.	2.4	8
45	Toward Negatively Curved Carbons. <i>Accounts of Chemical Research</i> , 2018, 51, 1630-1642.	7.6	281
46	From Phenanthrylene Butadiynylene Macrocycles to S-Heterocycloarenes. <i>Organic Letters</i> , 2018, 20, 4259-4262.	2.4	22
47	Halogenated Tetraazapentacenes with Electron Mobility as High as $27.8 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$ in Solution-Processed $n$ -Channel Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2018, 30, e1803467.	11.1	156
48	Copolymer dielectrics with balanced chain-packing density and surface polarity for high-performance flexible organic electronics. <i>Nature Communications</i> , 2018, 9, 2339.	5.8	76
49	Aggregation-induced emission: mechanistic study of the clusteroluminescence of tetrathienylethene. <i>Chemical Science</i> , 2017, 8, 2629-2639.	3.7	95
50	From tetrabenzoheptafulvalene to $sp^2$ carbon nano-rings. <i>Organic Chemistry Frontiers</i> , 2017, 4, 699-703.	2.3	14
51	Engineering Thin Films of a Tetrabenzoporphyrin toward Efficient Charge-Carrier Transport: Selective Formation of a Brickwork Motif. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 8211-8218.	4.0	16
52	Molecular design of n-type organic semiconductors for high-performance thin film transistors. <i>Tetrahedron Letters</i> , 2017, 58, 1903-1911.	0.7	39
53	Synthesis, Structure, and Properties of Tetrabenzo[7]circulene. <i>Organic Letters</i> , 2017, 19, 2246-2249.	2.4	64
54	A Twisted Nanographene Consisting of 96 Carbon Atoms. <i>Angewandte Chemie</i> , 2017, 129, 9131-9135.	1.6	53

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55	A Twisted Nanographene Consisting of 96 Carbon Atoms. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9003-9007.	7.2	127
56	Titelbild: A Twisted Nanographene Consisting of 96 Carbon Atoms ( <i>Angew. Chem.</i> 31/2017). <i>Angewandte Chemie</i> , 2017, 129, 9031-9031.	1.6	1
57	N-Phenylated Heteroarenes: Synthesis, Structures, and Properties. <i>ChemPlusChem</i> , 2017, 82, 1034-1038.	1.3	12
58	Extension of Heteroarenes through a Four-Membered Ring. <i>Chemistry - A European Journal</i> , 2016, 22, 6637-6642.	1.7	33
59	Studies toward the Synthesis of Hepta-peri-heptabenzocirculene. <i>Synlett</i> , 2016, 27, 2091-2094.	1.0	8
60	Electron Mobility Exceeding $10 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$ and Band-Like Charge Transport in Solution-Processed n-Channel Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2016, 28, 5276-5283.	11.1	173
61	Twisted Polycyclic Arenes from Tetranaphthylidiphenylbenzenes by Controlling the Scholl Reaction with Substituents. <i>Chemistry - A European Journal</i> , 2016, 22, 18620-18627.	1.7	73
62	Benzo[4,5]cyclohepta[1,2-b]fluorene: an isomeric motif for pentacene containing linearly fused five-, six- and seven-membered rings. <i>Chemical Science</i> , 2016, 7, 6176-6181.	3.7	45
63	Boosting the electron mobility of solution-grown organic single crystals via reducing the amount of polar solvent residues. <i>Materials Horizons</i> , 2016, 3, 119-123.	6.4	64
64	Heptagons in Aromatics: From Monocyclic to Polycyclic. <i>Chemical Record</i> , 2015, 15, 1156-1159.	2.9	24
65	Synthesis, Molecular Packing, and Thin Film Transistors of Dibenzo[ <i>a</i> , <i>m</i> ]rubicenes. <i>Journal of the American Chemical Society</i> , 2015, 137, 16203-16208.	6.6	65
66	A Luminescent Nitrogen-Containing Polycyclic Aromatic Hydrocarbon Synthesized by Photocyclodehydrogenation with Unprecedented Regioselectivity. <i>Chemistry - A European Journal</i> , 2015, 21, 17973-17980.	1.7	17
67	Direct Patterning of Self-Assembled Monolayers by Stamp Printing Method and Applications in High Performance Organic Field-Effect Transistors and Complementary Inverters. <i>Advanced Functional Materials</i> , 2015, 25, 6112-6121.	7.8	43
68	Molecular packing and n-channel thin film transistors of chlorinated cyclobuta[1,2-b:3,4-b']diquinoxalines. <i>Chemical Communications</i> , 2015, 51, 4275-4278.	2.2	22
69	Aromatic Saddles Containing Two Heptagons. <i>Journal of the American Chemical Society</i> , 2015, 137, 3910-3914.	6.6	189
70	o-Carborane functionalized pentacenes: synthesis, molecular packing and ambipolar organic thin-film transistors. <i>Chemical Communications</i> , 2015, 51, 12004-12007.	2.2	113
71	Solution-Processed Ambipolar Organic Thin-Film Transistors by Blending p- and n-Type Semiconductors: Solid Solution versus Microphase Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28019-28026.	4.0	51
72	Monolayer Field-Effect Transistors of Nonplanar Organic Semiconductors with Brickwork Arrangement. <i>Advanced Materials</i> , 2015, 27, 3418-3423.	11.1	85

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73	Aggregation-induced emission and aggregation-promoted photochromism of bis(diphenylmethylene)dihydroacenes. <i>Chemical Science</i> , 2015, 6, 3538-3543.	3.7	86
74	Facile passivation of solution-processed InZnO thin-film transistors by octadecylphosphonic acid self-assembled monolayers at room temperature. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	32
75	Ten Years of N-Heteropentacenes as Semiconductors for Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2014, 26, 5541-5549.	11.1	324
76	Heptagon-Embedded Pentacene: Synthesis, Structures, and Thin-Film Transistors of Dibenzo[1,2-d:4,5-d']dicycloheptenes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6786-6790.	7.2	70
77	Self-Assembled Monolayers of Cyclohexyl-Terminated Phosphonic Acids as a General Dielectric Surface for High-Performance Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2014, 26, 7190-7196.	11.1	95
78	Massively Parallel Patterning of Complex 2D and 3D Functional Polymer Brushes by Polymer Pen Lithography. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 11955-11964.	4.0	52
79	Restriction of Intramolecular Motions: The General Mechanism behind Aggregation-Induced Emission. <i>Chemistry - A European Journal</i> , 2014, 20, 15349-15353.	1.7	578
80	Synthesis, solution-processed thin film transistors and solid solutions of silylethynylated diazatetracenes. <i>Chemical Communications</i> , 2014, 50, 12828-12831.	2.2	32
81	Ternary blend bulk heterojunction photovoltaic cells with an ambipolar small molecule as the cascade material. <i>RSC Advances</i> , 2014, 4, 1087-1092.	1.7	20
82	Heteroatom-Bridged Tetraphenylenes: Synthesis, Structures, and Properties. <i>Organic Letters</i> , 2014, 16, 3252-3255.	2.4	30
83	Conjugated macrocycles of phenanthrene: a new segment of [6,6]-carbon nanotube and solution-processed organic semiconductors. <i>Chemical Science</i> , 2013, 4, 4525.	3.7	48
84	Quantitative determination of scattering mechanism in large-area graphene on conventional and SAM-functionalized substrates at room temperature. <i>Nanoscale</i> , 2013, 5, 5784.	2.8	27
85	Ambipolar organic semiconductors from electron-accepting cyclopenta-fused anthracene. <i>Chemical Communications</i> , 2013, 49, 4301-4303.	2.2	65
86	Self-Assembled Monolayers of Phosphonic Acids with Enhanced Surface Energy for High-Performance Solution-Processed N-Channel Organic Thin-Film Transistors. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6222-6227.	7.2	89
87	Revisiting zethrene: synthesis, reactivity and semiconductor properties. <i>Chemical Science</i> , 2013, 4, 3294.	3.7	59
88	N-Heteropentacenes and N-Heteropentacenequinones: From Molecules to Semiconductors. <i>Synlett</i> , 2012, 23, 326-336.	1.0	160
89	High-Quality Large-Area Graphene from Dehydrogenated Polycyclic Aromatic Hydrocarbons. <i>Chemistry of Materials</i> , 2012, 24, 3906-3915.	3.2	119
90	The application of a high-k polymer in flexible low-voltage organic thin-film transistors. <i>Journal of Materials Chemistry</i> , 2012, 22, 15998.	6.7	65

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91	Highly Electron-Deficient Hexaazapentacenes and Their Dihydro Precursors. <i>Organic Letters</i> , 2012, 14, 4190-4193.	2.4	60
92	Induced crystallization of rubrene with diazapentacene as the template. <i>Journal of Materials Chemistry</i> , 2012, 22, 4396.	6.7	19
93	Hydrogen-Bonded Dihydropentacenes. <i>Organic Letters</i> , 2012, 14, 1050-1053.	2.4	64
94	Curved Polycyclic Aromatic Molecules That Are $\pi$ -Isoelectronic to Hexabenzocoronene. <i>Journal of the American Chemical Society</i> , 2012, 134, 13796-13803.	6.6	231
95	Polymer Pen Lithography Using Dual-Elastomer Tip Arrays. <i>Small</i> , 2012, 8, 2664-2669.	5.2	37
96	Switching of non-helical overcrowded tetrabenzoheptafulvalene derivatives. <i>Chemical Science</i> , 2011, 2, 2029.	3.7	103
97	Vapochromic and semiconducting solids of a bifunctional hydrocarbon. <i>Chemical Science</i> , 2011, 2, 2402.	3.7	26
98	Single crystal n-channel field effect transistors from solution-processed silylethynylated tetraazapentacene. <i>Journal of Materials Chemistry</i> , 2011, 21, 15201.	6.7	48
99	High hole mobility of 1,2-bis[4-(diphenylamino)phenyl-4-yl]-1,2-diphenylethene in field effect transistor. <i>Chemical Communications</i> , 2011, 47, 6924.	2.2	50
100	Thermotropic liquid crystals based on 1,8,9,16-tetrasubstituted tetraphenylenes and their structure-property relationship studies. <i>Chemical Science</i> , 2011, 2, 1068.	3.7	28
101	Degradation mechanism of organic solar cells with aluminum cathode. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 3303-3310.	3.0	65
102	Soluble and Stable $N$ -Heteropentacenes with High Field-Effect Mobility. <i>Advanced Materials</i> , 2011, 23, 1535-1539.	11.1	334
103	The Position of Nitrogen in $N$ -Heteropentacenes Matters. <i>Advanced Materials</i> , 2011, 23, 5514-5518.	11.1	210
104	$N$ -heteroquinones: quadruple weak hydrogen bonds and n-channel transistors. <i>Chemical Communications</i> , 2010, 46, 2977.	2.2	76
105	Induced Crystallization of Rubrene in Thin-Film Transistors. <i>Advanced Materials</i> , 2010, 22, 3242-3246.	11.1	67
106	Induced Crystallization of Rubrene in Thin-Film Transistors ( <i>Adv. Mater.</i> 30/2010). <i>Advanced Materials</i> , 2010, 22, .	11.1	4
107	Performance and Stability Improvement of P3HT:PCBM-Based Solar Cells by Thermally Evaporated Chromium Oxide ( $CrO_x$ ) Interfacial Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 2699-2702.	4.0	68
108	$N$ -Type Organic Semiconductors Based on $\pi$ -Deficient Pentacenequinones: Synthesis, Electronic Structures, Molecular Packing, and Thin Film Transistors. <i>Chemistry of Materials</i> , 2010, 22, 6438-6443.	3.2	93

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109	Photoresponsive nanoscale columnar transistors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 691-696.	3.3	94
110	Benzenoid and Quinonoid Nitrogen-Containing Heteropentacenes. Chemistry - A European Journal, 2009, 15, 3965-3969.	1.7	70
111	A Meaningful Analogue of Pentacene: Charge Transport, Polymorphs, and Electronic Structures of Dihydrodiazapentacene. Chemistry of Materials, 2009, 21, 1400-1405.	3.2	63
112	Unexpected Photooxidation of H-Bonded Tetracene. Organic Letters, 2008, 10, 2007-2010.	2.4	41
113	Transistors from a conjugated macrocycle molecule: field and photo effects. Chemical Communications, 2008, , 4324.	2.2	39
114	Organization of Acenes with a Cruciform Assembly Motif. Journal of the American Chemical Society, 2006, 128, 1340-1345.	6.6	214
115	Hexathiapentacene: Structure, Molecular Packing, and Thin-Film Transistors. Journal of the American Chemical Society, 2006, 128, 15576-15577.	6.6	136
116	Chemical Complementarity in the Contacts for Nanoscale Organic Field-Effect Transistors. Journal of the American Chemical Society, 2006, 128, 1788-1789.	6.6	80
117	Barbier-type reaction mediated with tin nano-particles in water. Tetrahedron, 2005, 61, 2521-2527.	1.0	25
118	Molecular Wires from Contorted Aromatic Compounds. Angewandte Chemie - International Edition, 2005, 44, 7390-7394.	7.2	293
119	A Recyclable Electrochemical Allylation in Water.. ChemInform, 2005, 36, no.	0.1	1
120	Probing Nanoscale Pentacene Films by Resonant Raman Scattering. AIP Conference Proceedings, 2005, , .	0.3	0
121	Chemoselective Carbonyl Benzoylation Mediated by Zn / CdCl <sub>2</sub> / InCl <sub>3</sub> in Tap Water. Letters in Organic Chemistry, 2005, 2, 61-64.	0.2	3
122	A Recyclable Electrochemical Allylation in Water. Organic Letters, 2005, 7, 1903-1905.	2.4	58
123	Allylation of Carbonyl Compounds Mediated by Nanometer-Sized Bismuth in Water. Synlett, 2004, 2004, 1171-1174.	1.0	1
124	Resonant Raman scattering in nanoscale pentacene films. Applied Physics Letters, 2004, 84, 987-989.	1.5	45
125	Attaching Organic Semiconductors to Gate Oxides: In Situ Assembly of Monolayer Field Effect Transistors. Journal of the American Chemical Society, 2004, 126, 15048-15050.	6.6	130
126	Synthesis, Assembly, and Thin Film Transistors of Dihydrodiazapentacene: An Isostructural Motif for Pentacene. Journal of the American Chemical Society, 2003, 125, 10284-10287.	6.6	184



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127	Carbazole-Fused Polycyclic Aromatics Enabled by Regioselective Scholl Reactions. <i>Angewandte Chemie</i> , 0, , .	1.6	5