

Supeng Pei

List of Publications by Year in descending order

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95
papers

8,523
citations

94433

37
h-index

46799

89
g-index

96
all docs

96
docs citations

96
times ranked

6309
citing authors

#	ARTICLE	IF	CITATIONS
1	Single-junction organic solar cells with over 19% efficiency enabled by a refined double-fibril network morphology. <i>Nature Materials</i> , 2022, 21, 656-663.	27.5	1,214
2	Achieving Persistent Room Temperature Phosphorescence and Remarkable Mechanochromism from Pure Organic Luminogens. <i>Advanced Materials</i> , 2015, 27, 6195-6201.	21.0	513
3	Single-layered organic photovoltaics with double cascading charge transport pathways: 18% efficiencies. <i>Nature Communications</i> , 2021, 12, 309.	12.8	509
4	Efficient Solid Emitters with Aggregation-Induced Emission and Intramolecular Charge Transfer Characteristics: Molecular Design, Synthesis, Photophysical Behaviors, and OLED Application. <i>Chemistry of Materials</i> , 2012, 24, 1518-1528.	6.7	472
5	Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties. <i>Advanced Energy Materials</i> , 2020, 10, 1904234.	19.5	402
6	Crystallization-induced dual emission from metal- and heavy atom-free aromatic acids and esters. <i>Chemical Science</i> , 2015, 6, 4438-4444.	7.4	335
7	Clustering-Triggered Emission of Nonconjugated Polyacrylonitrile. <i>Small</i> , 2016, 12, 6586-6592.	10.0	293
8	Aggregation-Induced Multilength Scaled Morphology Enabling 11.76% Efficiency in All-Polymer Solar Cells Using Printing Fabrication. <i>Advanced Materials</i> , 2019, 31, e1902899.	21.0	270
9	Achieving Persistent, Efficient, and Robust Room-Temperature Phosphorescence from Pure Organics for Versatile Applications. <i>Advanced Materials</i> , 2019, 31, e1807222.	21.0	270
10	Conjugation-Induced Rigidity in Twisting Molecules: Filling the Gap Between Aggregation-Caused Quenching and Aggregation-Induced Emission. <i>Advanced Materials</i> , 2015, 27, 4496-4501.	21.0	268
11	Clustering-Triggered Emission and Persistent Room Temperature Phosphorescence of Sodium Alginate. <i>Biomacromolecules</i> , 2018, 19, 2014-2022.	5.4	248
12	Room temperature phosphorescence from natural products: Crystallization matters. <i>Science China Chemistry</i> , 2013, 56, 1178-1182.	8.2	236
13	Prevalent intrinsic emission from nonaromatic amino acids and poly(amino acids). <i>Science China Chemistry</i> , 2018, 61, 351-359.	8.2	214
14	Nonconventional macromolecular luminogens with aggregation-induced emission characteristics. <i>Journal of Polymer Science Part A</i> , 2017, 55, 560-574.	2.3	211
15	Color-Tunable, Excitation-Dependent, and Time-Dependent Afterglows from Pure Organic Amorphous Polymers. <i>Advanced Materials</i> , 2020, 32, e2004768.	21.0	181
16	Reevaluating Protein Photoluminescence: Remarkable Visible Luminescence upon Concentration and Insight into the Emission Mechanism. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12667-12673.	13.8	154
17	Emission mechanism understanding and tunable persistent room temperature phosphorescence of amorphous nonaromatic polymers. <i>Materials Chemistry Frontiers</i> , 2019, 3, 257-264.	5.9	150
18	Progress and prospects of the morphology of non-fullerene acceptor based high-efficiency organic solar cells. <i>Energy and Environmental Science</i> , 0, , .	30.8	149

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19	The coupling and competition of crystallization and phase separation, correlating thermodynamics and kinetics in OPV morphology and performances. <i>Nature Communications</i> , 2021, 12, 332.	12.8	140
20	High performance of lithium-ion polymer battery based on non-aqueous lithiated perfluorinated sulfonic ion-exchange membranes. <i>Energy and Environmental Science</i> , 2012, 5, 5690-5693.	30.8	132
21	A clustering-triggered emission strategy for tunable multicolor persistent phosphorescence. <i>Chemical Science</i> , 2020, 11, 2926-2933.	7.4	127
22	Emission and Emissive Mechanism of Nonaromatic Oxygen Clusters. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800528.	3.9	125
23	Dâ€A Solid Emitter with Crowded and Remarkably Twisted Conformations Exhibiting Multifunctionality and Multicolor Mechanochromism. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10998-11005.	3.1	120
24	Highâ€Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification. <i>Advanced Materials</i> , 2021, 33, e2007177.	21.0	111
25	Synthesis, clustering-triggered emission, explosive detection and cell imaging of nonaromatic polyurethanes. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 364-375.	3.4	100
26	A facile hydrothermal approach towards photoluminescent carbon dots from amino acids. <i>Journal of Colloid and Interface Science</i> , 2015, 439, 129-133.	9.4	96
27	Diethylamino functionalized tetraphenylethenes: structural and electronic modulation of photophysical properties, implication for the CIE mechanism and application to cell imaging. <i>Journal of Materials Chemistry C</i> , 2015, 3, 112-120.	5.5	86
28	Crystallization-induced phosphorescence of benzils at room temperature. <i>Science China Chemistry</i> , 2013, 56, 1183-1186.	8.2	85
29	ZIF67@MFC-Derived Co/N-C@CNFs Interconnected Frameworks with Graphitic Carbon-Encapsulated Co Nanoparticles as Highly Stable and Efficient Electrocatalysts for Oxygen Reduction Reactions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 41580-41589.	8.0	81
30	Aggregation-Induced Dual Emission and Unusual Luminescence beyond Excimer Emission of Poly(ethylene terephthalate). <i>Macromolecules</i> , 2018, 51, 9035-9042.	4.8	73
31	N, F-Codoped Microporous Carbon Nanofibers as Efficient Metal-Free Electrocatalysts for ORR. <i>Nano-Micro Letters</i> , 2019, 11, 9.	27.0	69
32	Sulphur-containing nonaromatic polymers: clustering-triggered emission and luminescence regulation by oxidation. <i>Polymer Chemistry</i> , 2019, 10, 3639-3646.	3.9	65
33	AIE-active, highly thermally and morphologically stable, mechanochromic and efficient solid emitters for low color temperature OLEDs. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7552-7560.	5.5	56
34	Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwichâ€Type Structure for Highâ€Performance Photovoltaics. <i>Advanced Materials</i> , 2020, 32, e2002784.	21.0	52
35	Thiolâ€bromo click polymerization for multifunctional polymers: synthesis, light refraction, aggregation-induced emission and explosive detection. <i>Polymer Chemistry</i> , 2015, 6, 97-105.	3.9	46
36	Polymeric photothermal agents for cancer therapy: recent progress and clinical potential. <i>Journal of Materials Chemistry B</i> , 2021, 9, 1478-1490.	5.8	46

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37	Melamine-Doped Cathode Interlayer Enables High-Efficiency Organic Solar Cells. ACS Energy Letters, 2021, 6, 3582-3589.	17.4	45
38	The Molecular Ordering and Double-Channel Carrier Generation of Nonfullerene Photovoltaics within Multi-Scale Morphology. Advanced Materials, 2022, 34, e2108317.	21.0	43
39	Clustering-Triggered Efficient Room-Temperature Phosphorescence from Nonconventional Luminophores. ChemPhysChem, 2020, 21, 36-42.	2.1	39
40	Rational bridging affording luminogen with AIE features and high field effect mobility. Journal of Materials Chemistry C, 2015, 3, 4903-4909.	5.5	35
41	Reevaluating Protein Photoluminescence: Remarkable Visible Luminescence upon Concentration and Insight into the Emission Mechanism. Angewandte Chemie, 2019, 131, 12797-12803.	2.0	30
42	Transport properties of PFSA membranes with various ion exchange capacities for direct methanol fuel cell application. Energy and Environmental Science, 2010, 3, 114-116.	30.8	26
43	N, P, S/Fe-doped Carbon Derived from Feculae Bombycis as an Efficient Electrocatalyst for Oxygen Reduction Reaction. ChemCatChem, 2019, 11, 6015-6021.	3.7	26
44	Fabrication of polymeric honeycomb microporous films: breath figures strategy and stabilization of water droplets by fluorinated diblock copolymer micelles. Journal of Materials Science, 2012, 47, 6862-6871.	3.7	25
45	Achieving Hybridized Local and Charge-Transfer Excited State and Excellent OLED Performance Through Facile Doping. Advanced Optical Materials, 2017, 5, 1700466.	7.3	25
46	Clustering-triggered Emission of Nonaromatic Polymers with Multitype Heteroatoms and Effective Hydrogen Bonding. Chemical Research in Chinese Universities, 2021, 37, 177-182.	2.6	23
47	Spontaneous carrier generation and low recombination in high-efficiency non-fullerene solar cells. Energy and Environmental Science, 2022, 15, 3483-3493.	30.8	23
48	Fluorine-containing block copolymer particles with surface and internal hierarchical microphase separation structures. Soft Matter, 2012, 8, 2471.	2.7	22
49	Surface characteristics and blood compatibility of PVDF/PMMA membranes. Journal of Materials Science, 2012, 47, 5030-5040.	3.7	22
50	Evidence for a crystallite-rich skin on perfluorosulfonate ionomer membranes. RSC Advances, 2013, 3, 8947.	3.6	22
51	Manipulating the Crystallization Kinetics by Additive Engineering toward High-Efficient Photovoltaic Performance. Advanced Functional Materials, 2021, 31, 2009103.	14.9	20
52	Synthesis of photocleavable poly(methyl methacrylate-block- ϵ -lactide) via atom-transfer radical polymerization and ring-opening polymerization. Journal of Polymer Science Part A, 2013, 51, 4309-4316.	2.3	18
53	High efficiency D-A structured luminogen with aggregation-induced emission and mechanochromic characteristics. Science Bulletin, 2013, 58, 2719-2722.	1.7	18
54	A gelable pure organic luminogen with fluorescence-phosphorescence dual emission. Science China Chemistry, 2017, 60, 806-812.	8.2	18

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55	Robust and color-tunable afterglows from guanidine derivatives. <i>Chemical Communications</i> , 2022, 58, 545-548.	4.1	17
56	Poly(tetrafluoroethylene-co-perfluorovinyl ether sulfonamide) for anion exchange membranes. <i>Polymer Chemistry</i> , 2016, 7, 2904-2912.	3.9	16
57	Decoupling Complex Multi-Scale Morphology in Non-Fullerene Photovoltaics with Nitrogen K-Edge Resonant Soft X-ray Scattering. <i>Advanced Materials</i> , 2022, 34, e2107316.	21.0	16
58	Fluorene- and benzimidazole-based blue light-emitting copolymers: Synthesis, photophysical properties, and PLED applications. <i>Journal of Polymer Science Part A</i> , 2012, 50, 2172-2181.	2.3	14
59	Fabrication and biocompatibility of reduced graphene oxide/poly(vinylidene fluoride) composite membranes. <i>RSC Advances</i> , 2015, 5, 99841-99847.	3.6	14
60	Intrinsic emission and tunable phosphorescence of perfluorosulfonate ionomers with evolved ionic clusters. <i>Science China Chemistry</i> , 2020, 63, 833-840.	8.2	14
61	Li-fluorine codoped electrospun carbon nanofibers for enhanced hydrogen storage. <i>RSC Advances</i> , 2021, 11, 4053-4061.	3.6	14
62	Fluorinated Carbon Nanotube Superamphiphobic Coating for High-Efficiency and Long-Lasting Underwater Antibiofouling Surfaces. <i>ACS Applied Bio Materials</i> , 2021, 4, 6351-6360.	4.6	14
63	Capture the high-efficiency non-fullerene ternary organic solar cells formula by machine-learning-assisted energy-level alignment optimization. <i>Patterns</i> , 2021, 2, 100333.	5.9	14
64	Ultrasmall Zwitterionic Polypeptide-Coordinated Nanohybrids for Highly Efficient Cancer Photothermal Ferrotherapy. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44002-44012.	8.0	13
65	Towards high-performance hybrid hydrophilic membranes: chemical anchoring of hydroxyl-rich nanoparticles on PVDF membranes via a silane coupling agent. <i>Journal of Materials Science</i> , 2017, 52, 11737-11748.	3.7	12
66	Systematic stability investigation of perfluorosulfonic acid membranes with varying ion exchange capacities for fuel cell applications. <i>RSC Advances</i> , 2014, 4, 6369.	3.6	11
67	Michael Polyaddition Approach Towards Sulfur Enriched Nonaromatic Polymers with Fluorescence-Phosphorescence Dual Emission. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100036.	3.9	10
68	Correlating Electronic Structure and Device Physics with Mixing Region Morphology in High-Efficiency Organic Solar Cells. <i>Advanced Science</i> , 2022, 9, e2104613.	11.2	10
69	Three different β -cyclodextrins direct the emulsion copolymerization of a highly fluorinated methacrylate toward distinctive nanostructured particle morphologies. <i>Journal of Polymer Science Part A</i> , 2011, 49, 4518-4530.	2.3	9
70	High quality pristine perfluorosulfonated ionomer membranes prepared from perfluorinated sulfonyl fluoride solution. <i>RSC Advances</i> , 2012, 2, 5950.	3.6	9
71	Facile hydrophobic modification of hybrid poly(urethane-urea)methacrylate aqueous dispersions and films through blending with novel waterborne fluorinated acrylic copolymers. <i>Colloid and Polymer Science</i> , 2012, 290, 491-506.	2.1	9
72	Triphenylacrylonitrile decorated N-phenylcarbazole: Isomeric effect on photophysical properties. <i>Dyes and Pigments</i> , 2018, 154, 113-120.	3.7	9

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73	A facile and general approach for the direct fabrication of N-rGOâ€“metal(metal oxides)â€“Pt composites as electrocatalyst for oxygen reduction reactions. RSC Advances, 2018, 8, 27246-27252.	3.6	9
74	Fe, N-doped carbon spheres prepared by electrospinning method as high efficiency oxygen reduction catalyst. RSC Advances, 2020, 10, 779-783.	3.6	9
75	Surface and grain boundary carbon heterogeneity in CH ₃ NH ₃ PbI ₃ perovskites and its impact on optoelectronic properties. Applied Physics Reviews, 2020, 7, .	11.3	9
76	Ultrafine platinum nanoparticles supported on N,S-codoped porous carbon nanofibers as efficient multifunctional materials for noticeable oxygen reduction reaction and water splitting performance. Nanoscale Advances, 2022, 4, 1639-1648.	4.6	9
77	Control of aggregation and dissolution of small molecule hole transport layers <i>via</i> a doping strategy for highly efficient perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 11932-11942.	5.5	8
78	Improved Thermo-Mechanical Properties and Reduced Hydrogen Permeation of Short Side-Chain Perfluorosulfonic Acid Membranes Doped with Ti ₃ C ₂ T _x . Materials, 2021, 14, 7875.	2.9	8
79	Slotâ€“Dieâ€“Coated Organic Solar Cells Optimized through Multistep Crystallization Kinetics. Solar Rrl, 2022, 6, .	5.8	7
80	Evaluation of electrospun nanofiber formation of perfluorosulfonic acid and poly (N-vinylpyrrolidone) through solution rheology. Journal of Materials Science, 2011, 46, 7501-7510.	3.7	5
81	Orderâ€“order phase transition and transformation in co-assembled particles from fluorinated FA/FB type diblock copolymers. Soft Matter, 2012, 8, 8405.	2.7	5
82	Rheological study on tetrafluoroethylene/hexafluoropropylene copolymer and its implication for processability. Journal of Applied Polymer Science, 2012, 125, 3361-3367.	2.6	5
83	Biocompatibility and anti-cracking performance of perfluorocarboxylic acid ionomer membranes for implantable biosensors. Journal of Materials Science, 2012, 47, 5181-5189.	3.7	5
84	Properties of precursor solution cast PFSI membranes with various ion exchange capacities and annealing temperatures. RSC Advances, 2013, 3, 7289.	3.6	5
85	Highly efficient Co centers functionalized by nitrogen-doped carbon for the chemical fixation of CO ₂ . RSC Advances, 2020, 10, 42408-42412.	3.6	5
86	CoFe/N, Sâ€“C Featured with Graphitic Nanoribbons and Multiple CoFe Nanoparticles as Highly Stable and Efficient Electrocatalysts for the Oxygen Reduction Reaction. ACS Omega, 2021, 6, 11059-11067.	3.5	5
87	Manipulating the Crystalline Morphology in the Nonfullerene Acceptor Mixture to Improve the Carrier Transport and Suppress the Energetic Disorder. Small Science, 2022, 2, 2100092.	9.9	5
88	Melt rheological properties of ETFE: an attempt to illuminate the fluorine-substitution effect. Polymer Bulletin, 2012, 69, 375-388.	3.3	4
89	Enhancing the anti-cracking performance of perfluorosulfonic acid membranes for implantable biosensors through supercritical CO ₂ treatment. Journal of Materials Science, 2012, 47, 3602-3606.	3.7	4
90	A two-layer ONIOM study of thiophene cracking catalyzed by proton- and cation-exchanged FAU zeolite. Journal of Molecular Modeling, 2016, 22, 51.	1.8	3

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91	Non-Fullerene Acceptors: Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties (Adv. Energy Mater. 18/2020). Advanced Energy Materials, 2020, 10, 2070083.	19.5	3
92	Preparation and characterization of perfluorosulfonic resin/titania hybrid transparent films. Science in China Series B: Chemistry, 2007, 50, 243-248.	0.8	2
93	Crystallization-Induced Phosphorescence for Purely Organic Phosphors at Room Temperature and Liquid Crystals with Aggregation-Induced Emission Characteristics. , 2013, , 43-60.		2
94	Dinonylphenyl end-capped poly(ethylene glycol)-b-polystyrene: synthesis and its unusual crystalline and self-assembly behaviors. Journal of Materials Science, 2015, 50, 4280-4287.	3.7	1
95	Organic Solar Cells: High-Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification (Adv. Mater. 18/2021). Advanced Materials, 2021, 33, 2170142.	21.0	1