Tae Joo Shin

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

225	12,153	52	104
papers	citations	h-index	g-index
235	14,577 ext. citations	10.4	6.59
ext. papers		avg, IF	L-index

#	Paper	IF	Citations
225	Efficient, stable and scalable perovskite solar cells using poly(3-hexylthiophene). <i>Nature</i> , 2019 , 567, 51	1-50.5	1366
224	Semi-crystalline photovoltaic polymers with efficiency exceeding 9% in a ~300 nm thick conventional single-cell device. <i>Energy and Environmental Science</i> , 2014 , 7, 3040-3051	35.4	554
223	Perovskite solar cells with atomically coherent interlayers on SnO electrodes. <i>Nature</i> , 2021 , 598, 444-4.	5% 0.4	530
222	A General Approach to Preferential Formation of Active Fe-N Sites in Fe-N/C Electrocatalysts for Efficient Oxygen Reduction Reaction. <i>Journal of the American Chemical Society</i> , 2016 , 138, 15046-15050	6 ^{16.4}	523
221	Effect of Mesoscale Crystalline Structure on the Field-Effect Mobility of Regioregular Poly(3-hexyl thiophene) in Thin-Film Transistors. <i>Advanced Functional Materials</i> , 2005 , 15, 671-676	15.6	520
220	A thienoisoindigo-naphthalene polymer with ultrahigh mobility of 14.4 cm(2)/VI3 that substantially exceeds benchmark values for amorphous silicon semiconductors. <i>Journal of the American Chemical Society</i> , 2014 , 136, 9477-83	16.4	492
219	Boosting the ambipolar performance of solution-processable polymer semiconductors via hybrid side-chain engineering. <i>Journal of the American Chemical Society</i> , 2013 , 135, 9540-7	16.4	422
218	Multicomponent electrocatalyst with ultralow Pt loading and high hydrogen evolution activity. <i>Nature Energy</i> , 2018 , 3, 773-782	62.3	330
217	Conducting AFM and 2D GIXD studies on pentacene thin films. <i>Journal of the American Chemical Society</i> , 2005 , 127, 11542-3	16.4	278
216	Highly Efficient Fullerene-Free Polymer Solar Cells Fabricated with Polythiophene Derivative. <i>Advanced Materials</i> , 2016 , 28, 9416-9422	24	253
215	Investigation of Structure P roperty Relationships in Diketopyrrolopyrrole-Based Polymer Semiconductors via Side-Chain Engineering. <i>Chemistry of Materials</i> , 2015 , 27, 1732-1739	9.6	220
214	A new copolymerization process leading to poly(propylene carbonate) with a highly enhanced yield from carbon dioxide and propylene oxide. <i>Journal of Polymer Science Part A</i> , 1999 , 37, 1863-1876	2.5	171
213	Fluorination on both D and A units in DA type conjugated copolymers based on difluorobithiophene and benzothiadiazole for highly efficient polymer solar cells. <i>Energy and Environmental Science</i> , 2015 , 8, 2427-2434	35.4	156
212	Fast low-voltage electroactive actuators using nanostructured polymer electrolytes. <i>Nature Communications</i> , 2013 , 4, 2208	17.4	141
211	Wafer-Scale and Wrinkle-Free Epitaxial Growth of Single-Orientated Multilayer Hexagonal Boron Nitride on Sapphire. <i>Nano Letters</i> , 2016 , 16, 3360-6	11.5	130
210	Current status of the synchrotron small-angle X-ray scattering Station BL4C1 at the Pohang Accelerator Laboratory. <i>Macromolecular Research</i> , 2002 , 10, 2-12	1.9	125
209	Single crystalline pyrochlore nanoparticles with metallic conduction as efficient bi-functional oxygen electrocatalysts for ZnBir batteries. <i>Energy and Environmental Science</i> , 2017 , 10, 129-136	35.4	121

(2008-2018)

208	Structural features and their functions in surfactant-armoured methylammonium lead iodide perovskites for highly efficient and stable solar cells. <i>Energy and Environmental Science</i> , 2018 , 11, 2188-	2 151	116
207	Molecular Beam Epitaxy of Highly Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9392-9400	16.4	110
206	Analysis of Molecular Aggregation Structures of Fully Aromatic and Semialiphatic Polyimide Films with Synchrotron Grazing Incidence Wide-Angle X-ray Scattering. <i>Macromolecules</i> , 2010 , 43, 1930-1941	5.5	110
205	EBranched Flexible Side Chain Substituted Diketopyrrolopyrrole-Containing Polymers Designed for High Hole and Electron Mobilities. <i>Advanced Functional Materials</i> , 2015 , 25, 247-254	15.6	106
204	Colloidal inverse bicontinuous cubic membranes of block copolymers with tunable surface functional groups. <i>Nature Chemistry</i> , 2014 , 6, 534-41	17.6	102
203	Epitaxial Growth of Thin Ferroelectric Polymer Films on Graphene Layer for Fully Transparent and Flexible Nonvolatile Memory. <i>Nano Letters</i> , 2016 , 16, 334-40	11.5	101
202	Size-Dependent Activity Trends Combined with in Situ X-ray Absorption Spectroscopy Reveal Insights into Cobalt Oxide/Carbon Nanotube-Catalyzed Bifunctional Oxygen Electrocatalysis. <i>ACS Catalysis</i> , 2016 , 6, 4347-4355	13.1	95
201	Effect of surface oxygen functionalization of carbon support on the activity and durability of Pt/C catalysts for the oxygen reduction reaction. <i>Carbon</i> , 2016 , 101, 449-457	10.4	86
200	Heterogeneous CoN/C Electrocatalysts with Controlled Cobalt Site Densities for the Hydrogen Evolution Reaction: StructureActivity Correlations and Kinetic Insights. <i>ACS Catalysis</i> , 2019 , 9, 83-97	13.1	82
199	Synthesis of new aromatic polyimides with various side chains containing a biphenyl mesogen unit and their abilities to control liquid-crystal alignments on the rubbed surface. <i>Journal of Polymer Science Part A</i> , 1999 , 37, 2909-2921	2.5	79
198	Quick, large-area assembly of a single-crystal monolayer of spherical particles by unidirectional rubbing. <i>Advanced Materials</i> , 2014 , 26, 4633-8	24	74
197	A Wide Bandgap Polymer with Strong Interaction for Efficient Fullerene-Free Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1600742	21.8	74
196	A Balanced Face-On to Edge-On Texture Ratio in Naphthalene Diimide-Based Polymers with Hybrid Siloxane Chains Directs Highly Efficient Electron Transport. <i>Macromolecules</i> , 2015 , 48, 5179-5187	5.5	72
195	Promoting Oxygen Reduction Reaction Activity of FeN/C Electrocatalysts by Silica-Coating-Mediated Synthesis for Anion-Exchange Membrane Fuel Cells. <i>Chemistry of Materials</i> , 2018 , 30, 6684-6701	9.6	69
194	Two different mechanisms of CH3NH3PbI3 film formation in one-step deposition and its effect on photovoltaic properties of OPV-type perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 23964-23972	13	68
193	Ultralow-dielectric-constant amorphous boron nitride. <i>Nature</i> , 2020 , 582, 511-514	50.4	68
192	Organic phototransistors based on solution grown, ordered single crystalline arrays of a Econjugated molecule. <i>Journal of Materials Chemistry</i> , 2012 , 22, 3192		68
191	Small-angle x-ray scattering station 4C2 BL of pohang accelerator laboratory for advance in Korean polymer science. <i>Macromolecular Research</i> , 2008 , 16, 575-585	1.9	68

190	Stretchable batteries with gradient multilayer conductors. Science Advances, 2019, 5, eaaw1879	14.3	67
189	Solvent-free directed patterning of a highly ordered liquid crystalline organic semiconductor via template-assisted self-assembly for organic transistors. <i>Advanced Materials</i> , 2013 , 25, 6219-25	24	66
188	Superb water splitting activity of the electrocatalyst FeCo(PO) designed with computation aid. <i>Nature Communications</i> , 2019 , 10, 5195	17.4	65
187	Structural transitions of nanocrystalline domains in regioregular poly(3-hexyl thiophene) thin films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007 , 45, 1303-1312	2.6	65
186	Copolymerization of carbon dioxide and propylene oxide using various zinc glutarate derivatives as catalysts. <i>Polymer Engineering and Science</i> , 2000 , 40, 1542-1552	2.3	64
185	Self-Supported Mesostructured Pt-Based Bimetallic Nanospheres Containing an Intermetallic Phase as Ultrastable Oxygen Reduction Electrocatalysts. <i>Small</i> , 2016 , 12, 5347-5353	11	63
184	Fast two-step deposition of perovskite via mediator extraction treatment for large-area, high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12447-12454	13	60
183	Uniaxial Tensile Deformation of Poly(Haprolactone) Studied with SAXS and WAXS Techniques Using Synchrotron Radiation. <i>Macromolecules</i> , 2012 , 45, 8752-8759	5.5	60
182	Synthesis and Characterization of A New Blue-Light-Emitting Polyimide. <i>Macromolecules</i> , 1998 , 31, 4777	′ - 8¶	60
181	Time-Resolved Synchrotron X-ray Diffraction and Infrared Spectroscopic Studies of Imidization and Structural Evolution in a Microscaled Film of PMDA-3,4EDDA Poly(amic acid). <i>Langmuir</i> , 2001 , 17, 7842-7	8 ⁴ 50	59
180	Stabilization of formamidinium lead triiodide hase with isopropylammonium chloride for perovskite solar cells. <i>Nature Energy</i> , 2021 , 6, 419-428	62.3	59
179	Improved Performance in Polymer Solar Cells Using Mixed PC61BM/PC71BM Acceptors. <i>Advanced Energy Materials</i> , 2015 , 5, 1401687	21.8	58
178	Jabuticaba-Inspired Hybrid Carbon Filler/Polymer Electrode for Use in Highly Stretchable Aqueous Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1702478	21.8	58
177	A General Strategy to Atomically Dispersed Precious Metal Catalysts for Unravelling Their Catalytic Trends for Oxygen Reduction Reaction. <i>ACS Nano</i> , 2020 , 14, 1990-2001	16.7	58
176	Unveiling the Relationship between the Perovskite Precursor Solution and the Resulting Device Performance. <i>Journal of the American Chemical Society</i> , 2020 , 142, 6251-6260	16.4	57
175	Activity Origin and Multifunctionality of Pt-Based Intermetallic Nanostructures for Efficient Electrocatalysis. <i>ACS Catalysis</i> , 2019 , 9, 11242-11254	13.1	56
174	Secondary Crystallization Behavior of Poly(ethylene isophthalate-co-terephthalate): Time-Resolved Small-Angle X-ray Scattering and Calorimetry Studies. <i>Macromolecules</i> , 2004 , 37, 4174-4	184	55
173	Gradient tantalum-doped hematite homojunction photoanode improves both photocurrents and turn-on voltage for solar water splitting. <i>Nature Communications</i> , 2020 , 11, 4622	17.4	52

(2017-2017)

172	Honeycomb-layer structured Na3Ni2BiO6 as a high voltage and long life cathode material for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 1300-1310	13	51	
171	Tio2@Sn coreBhell nanotubes for fast and high density Li-ion storage material. <i>Electrochemistry Communications</i> , 2008 , 10, 1669-1672	5.1	51	
170	Siloxane Side Chains: A Universal Tool for Practical Applications of Organic Field-Effect Transistors. <i>Macromolecules</i> , 2016 , 49, 3739-3748	5.5	51	
169	Mesoporous monoliths of inverse bicontinuous cubic phases of block copolymer bilayers. <i>Nature Communications</i> , 2015 , 6, 6392	17.4	50	
168	Nanoparticles of conjugated polymers prepared from phase-separated films of phospholipids and polymers for biomedical applications. <i>Advanced Materials</i> , 2014 , 26, 4559-64	24	50	
167	Solution self-assembly of block copolymers containing a branched hydrophilic block into inverse bicontinuous cubic mesophases. <i>ACS Nano</i> , 2015 , 9, 3084-96	16.7	49	
166	Efficient Nanostructured TiO2/SnS Heterojunction Solar Cells. Advanced Energy Materials, 2019, 9, 1901	34 38	49	
165	Multistep hierarchical self-assembly of chiral nanopore arrays. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 14342-7	11.5	49	
164	Anisotropy-Driven High Thermal Conductivity in Stretchable Poly(vinyl alcohol)/Hexagonal Boron Nitride Nanohybrid Films. <i>ACS Applied Materials & Discrete Samp; Interfaces</i> , 2018 , 10, 34625-34633	9.5	49	
163	Ordered Mesoporous Metastable \(\text{H}\)moC1\(\text{\mathbb{N}}\) with Enhanced Water Dissociation Capability for Boosting Alkaline Hydrogen Evolution Activity. \(Advanced Functional Materials\), \(2019\), 29, 1901217	15.6	48	
162	A Timely Synthetic Tailoring of Biaxially Extended Thienylenevinylene-Like Polymers for Systematic Investigation on Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2015 , 25, 586-596	15.6	48	
161	The effect of side-chain length on regioregular poly[3-(4-n-alkyl)phenylthiophene]/PCBM and ICBA polymer solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14236		48	
160	Geometrically controlled organic small molecule acceptors for efficient fullerene-free organic photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 12308-12318	13	48	
159	Ambipolar Semiconducting Polymers with Espacer Linked Bis-Benzothiadiazole Blocks as Strong Accepting Units. <i>Chemistry of Materials</i> , 2014 , 26, 4933-4942	9.6	47	
158	Fluorinated benzothiadiazole (BT) groups as a powerful unit for high-performance electron-transporting polymers. <i>ACS Applied Materials & Data Materials & Data</i>	9.5	46	
157	Artificial light-harvesting n-type porphyrin for panchromatic organic photovoltaic devices. <i>Chemical Science</i> , 2017 , 8, 5095-5100	9.4	45	
156	A Morphological Transition of Inverse Mesophases of a Branched-Linear Block Copolymer Guided by Using Cosolvents. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10483-7	16.4	45	
155	P2 Orthorhombic Na[MnLi]O as Cathode Materials for Na-Ion Batteries. <i>ACS Applied Materials</i> & Amp; Interfaces, 2017 , 9, 14758-14768	9.5	44	

154	Thermal imidization and structural evolution of thin films of poly(4,4Poxydiphenylene p-pyromellitamic diethyl ester). <i>Journal of Physical Chemistry B</i> , 2007 , 111, 13894-900	3.4	43
153	Over 10% efficiency in single-junction polymer solar cells developed from easily accessible random terpolymers. <i>Nano Energy</i> , 2017 , 39, 229-237	17.1	42
152	Efficient organic photovoltaics utilizing nanoscale heterojunctions in sequentially deposited polymer/fullerene bilayer. <i>Scientific Reports</i> , 2015 , 5, 8373	4.9	41
151	Dithienogermole-Containing Small-Molecule Solar Cells with 7.3% Efficiency: In-Depth Study on the Effects of Heteroatom Substitution of Si with Ge. <i>Advanced Energy Materials</i> , 2015 , 5, 1402044	21.8	40
150	Well-Defined Functional Linear Aliphatic Diblock Copolyethers: A Versatile Linear Aliphatic Polyether Platform for Selective Functionalizations and Various Nanostructures. <i>Advanced Functional Materials</i> , 2012 , 22, 5194-5208	15.6	40
149	X-ray absorption and NMR spectroscopic investigations of zinc glutarates prepared from various zinc sources and their catalytic activities in the copolymerization of carbon dioxide and propylene oxide. <i>Journal of Catalysis</i> , 2003 , 218, 209-219	7-3	40
148	Detailed analysis of gyroid structures in diblock copolymer thin films with synchrotron grazing-incidence X-ray scattering. <i>Journal of Applied Crystallography</i> , 2007 , 40, 950-958	3.8	39
147	Synthesis and characterization of fully rodlike poly(4,4?-biphenylene pyromellitimide)s with various short side groups. <i>Journal of Polymer Science Part A</i> , 1999 , 37, 937-957	2.5	38
146	Synthesis and characterization of new polyimides containing calix[4] arenes in the polymer backbone. <i>Journal of Polymer Science Part A</i> , 1999 , 37, 2013-2026	2.5	38
145	Flat-lying semiconductor-insulator interfacial layer in DNTT thin films. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 1833-40	9.5	36
144	In situ infrared spectroscopy study on imidization reaction and imidization-induced refractive index and thickness variations in microscale thin films of a poly(amic ester). <i>Langmuir</i> , 2005 , 21, 6081-5	4	36
143	Organic solar cells based on three-dimensionally percolated polythiophene nanowires with enhanced charge transport. <i>ACS Applied Materials & District Materi</i>	9.5	34
142	Stepwise Drug-Release Behavior of Onion-Like Vesicles Generated from Emulsification-Induced Assembly of Semicrystalline Polymer Amphiphiles. <i>Advanced Functional Materials</i> , 2015 , 25, 4570-4579	15.6	34
141	Alignment of helical nanofilaments on the surfaces of various self-assembled monolayers. <i>Soft Matter</i> , 2013 , 9, 6185	3.6	34
140	Polyaniline Nanocoating on the Surface of Layered Li[Li0.2Co0.1Mn0.7]O2 Nanodisks and Enhanced Cyclability as a Cathode Electrode for Rechargeable Lithium-Ion Battery. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 3675-3680	3.8	34
139	Mix-and-Match Assembly of Block Copolymer Blends in Solution. <i>Macromolecules</i> , 2017 , 50, 3234-3243	5.5	33
138	Self-Assembled, Millimeter-Sized TIPS-Pentacene Spherulites Grown on Partially Crosslinked Polymer Gate Dielectric. <i>Advanced Functional Materials</i> , 2015 , 25, 3658-3665	15.6	33
137	Structural Requirements of Block Copolymers for Self-Assembly into Inverse Bicontinuous Cubic Mesophases in Solution. <i>Macromolecules</i> , 2016 , 49, 4510-4519	5.5	33

(2007-1998)

136	Residual stress and optical properties of fully rod-like poly(p-phenylene pyromellitimide) in thin films: Effects of soft-bake and thermal imidization history. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998 , 36, 1261-1273	2.6	33
135	Rational Design and Construction of Hierarchical Superstructures Using Shape-Persistent Organic Cages: Porphyrin Box-Based Metallosupramolecular Assemblies. <i>Journal of the American Chemical Society</i> , 2018 , 140, 14547-14551	16.4	33
134	Polystyrene-b-polyisoprene thin films with hexagonally perforated layer structure: quantitative grazing-incidence X-ray scattering analysis. <i>Journal of Applied Crystallography</i> , 2008 , 41, 281-291	3.8	31
133	Complex Self-Assembled Morphologies of Thin Films of an Asymmetric A3B3C3 Star Polymer. <i>ACS Macro Letters</i> , 2013 , 2, 849-855	6.6	30
132	In Operando Monitoring of the Pore Dynamics in Ordered Mesoporous Electrode Materials by Small Angle X-ray Scattering. <i>ACS Nano</i> , 2015 , 9, 5470-7	16.7	30
131	Revealing Isolated M-N C Active Sites for Efficient Collaborative Oxygen Reduction Catalysis. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 23678-23683	16.4	30
130	Structural transitions and guest/host complexing of liquid crystal helical nanofilaments induced by nanoconfinement. <i>Science Advances</i> , 2017 , 3, e1602102	14.3	29
129	Structure and properties of rodlike poly(p-phenylene pyromellitimide)s containing short side groups. <i>Polymer</i> , 1999 , 40, 1603-1610	3.9	29
128	Solution-processable all-small molecular bulk heterojunction films for stable organic photodetectors: near UV and visible light sensing. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1513-1520	7.1	28
127	Dark current reduction strategies using edge-on aligned donor polymers for high detectivity and responsivity organic photodetectors. <i>Polymer Chemistry</i> , 2017 , 8, 3612-3621	4.9	27
126	Ultrastiff, Strong, and Highly Thermally Conductive Crystalline Graphitic Films with Mixed Stacking Order. <i>Advanced Materials</i> , 2019 , 31, e1903039	24	27
125	Residual Stress Evolution in Dielectric Thin Films Prepared from Poly(methylsilsesquioxane) Precursor. <i>Macromolecular Chemistry and Physics</i> , 2002 , 203, 801-811	2.6	27
124	Synthesis and blue light-emitting characteristic of rod-like poly(4,4?-biphenylene pyromellitimide) with furyl side groups. <i>Polymer</i> , 1999 , 40, 125-130	3.9	26
123	Unassisted solar lignin valorisation using a compartmented photo-electro-biochemical cell. <i>Nature Communications</i> , 2019 , 10, 5123	17.4	25
122	Adsorption and Incorporation of Arsenic to Biogenic Lepidocrocite Formed in the Presence of Ferrous Iron during Denitrification by Paracoccus denitrificans. <i>Environmental Science & Environmental Science & Technology</i> , 2018 , 52, 9983-9991	10.3	24
121	Tunable Film Morphologies of Brush-Linear Diblock Copolymer Bearing Difluorene Moieties Yield a Variety of Digital Memory Properties <i>ACS Macro Letters</i> , 2013 , 2, 555-560	6.6	24
120	High-temperature polyimide compositesprepared from soluble polymeric and crosslinkable oligomeric precursors: Phase demixing and properties. <i>Polymer</i> , 1998 , 39, 2521-2529	3.9	24
119	Tunable Thin-Film Crystalline Structures and Field-Effect Mobility of OligofluoreneThiophene Derivatives. <i>Chemistry of Materials</i> , 2007 , 19, 5882-5889	9.6	24

118	Non-functionalized soluble diketopyrrolopyrrole: Simplest p-channel core for organic field-effect transistors. <i>Organic Electronics</i> , 2013 , 14, 1396-1406	3.5	23
117	Effects of cobalt-intercalation and polyaniline coating on electrochemical performance of layered manganese oxides. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5282		23
116	Water Nanostructures Confined inside the Quasi-One-Dimensional Channels of LTL Zeolite. <i>Chemistry of Materials</i> , 2007 , 19, 6252-6257	9.6	23
115	Pronounced Cosolvent Effects in Polymer:Polymer Bulk Heterojunction Solar Cells with Sulfur-Rich Electron-Donating and Imide-Containing Electron-Accepting Polymers. <i>ACS Applied Materials & Materials & Interfaces</i> , 2015 , 7, 15995-6002	9.5	22
114	Bathochromic shift in absorption spectra of conjugated polymer nanoparticles with displacement along backbones. <i>Macromolecular Research</i> , 2015 , 23, 574-577	1.9	22
113	Preferential horizontal growth of tungsten sulfide on carbon and insight into active sulfur sites for the hydrogen evolution reaction. <i>Nanoscale</i> , 2018 , 10, 3838-3848	7.7	22
112	Orthogonal Liquid Crystal Alignment Layer: Templating Speed-Dependent Orientation of Chromonic Liquid Crystals. <i>ACS Applied Materials & Amp; Interfaces</i> , 2017 , 9, 18355-18361	9.5	21
111	Directed self-assembly of a helical nanofilament liquid crystal phase for use as structural color reflectors. NPG Asia Materials, 2019, 11,	10.3	21
110	Effects of precursor origins on water sorption behaviors of various aromatic polyimides in thin films. <i>Polymer</i> , 1999 , 40, 2681-2685	3.9	21
109	Structure-directing effect of single crystal graphene film on polymer carbonization and graphitization. <i>Materials Horizons</i> , 2019 , 6, 796-801	14.4	20
108	Long-term stability of CdSe/CdZnS quantum dot encapsulated in a multi-lamellar microcapsule. <i>Nanotechnology</i> , 2015 , 26, 275602	3.4	20
107	Graphene-oxide-intercalated layered manganese oxides as an efficient oxygen reduction reaction catalyst in alkaline media. <i>Electrochemistry Communications</i> , 2014 , 41, 35-38	5.1	20
106	X-ray imaging of various biological samples using a phase-contrast hard X-ray microscope. <i>Microscopy Research and Technique</i> , 2008 , 71, 639-43	2.8	20
105	Structure and properties of various poly(amic diisopropyl ester- alt -imide)s and their alternating copolyimides. <i>Polymer</i> , 2000 , 41, 5173-5184	3.9	20
104	Highly Oriented Liquid Crystal Semiconductor for Organic Field-Effect Transistors. <i>ACS Central Science</i> , 2018 , 4, 1495-1502	16.8	20
103	Small molecules based on thieno[3,4-c]pyrrole-4,6-dione for high open-circuit voltage (VOC) organic photovoltaics: effect of different positions of alkyl substitution on molecular packing and photovoltaic performance. ACS Applied Materials & amp; Interfaces, 2014, 6, 20035-42	9.5	19
102	Improving the Electrical Connection of n-Type Conjugated Polymers through Fluorine-Induced Robust Aggregation. <i>Chemistry of Materials</i> , 2019 , 31, 4864-4872	9.6	18
101	Effects of Ag-embedment on electronic and ionic conductivities of LiMnPO4 and its performance as a cathode for lithium-ion batteries. <i>Nanoscale</i> , 2015 , 7, 13860-7	7.7	18

(2020-2014)

100	Nanostructure- and Orientation-Controlled Digital Memory Behaviors of Linear-Brush Diblock Copolymers in Nanoscale Thin Films. <i>Macromolecules</i> , 2014 , 47, 4397-4407	5.5	18
99	Composition-dependent phase segregation and cocrystallization behaviors of blends of metallocene-catalyzed octene-LLDPE(D) and LDPE(H). <i>Polymer</i> , 2010 , 51, 5799-5806	3.9	18
98	Ordered Mesoporous Carbons with Graphitic Tubular Frameworks by Dual Templating for Efficient Electrocatalysis and Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 1441-1449	16.4	18
97	Designing highly active nanoporous carbon H2O2 production electrocatalysts through active site identification. <i>CheM</i> , 2021 ,	16.2	18
96	Tailored Colloidal Stability and Rheological Properties of Graphene Oxide Liquid Crystals with Polymer-Induced Depletion Attractions. <i>ACS Nano</i> , 2018 , 12, 11399-11406	16.7	17
95	Smectic assemblies in CEsymmetric hexa-alkylated liquid crystals: transformation from smectogen to discogen via hydrogen bonding. <i>Soft Matter</i> , 2014 , 10, 5804-9	3.6	16
94	Fully Elastic Conductive Films from Viscoelastic Composites. <i>ACS Applied Materials & Composition</i> , 9, 44096-44105	9.5	16
93	Physico-chemical confinement of helical nanofilaments. <i>Soft Matter</i> , 2015 , 11, 3653-9	3.6	15
92	Customized Energy Down-Shift Using Iridium Complexes for Enhanced Performance of Polymer Solar Cells. <i>ACS Energy Letters</i> , 2016 , 1, 991-999	20.1	15
91	Miscibility behavior of polyimide (PI)/poly(arylene ether benzimidazole) (PAEBI) blends and its effects on the adhesion of PI/PAEBI/copper joints. <i>Polymer</i> , 2000 , 41, 169-177	3.9	15
90	Linkage-length dependent structuring behaviour of bent-core molecules in helical nanostructures. <i>Soft Matter</i> , 2016 , 12, 3326-30	3.6	14
89	Facile synthesis of arylthiophenyl-functionalized diketopyrrolopyrrole derivatives via direct CH arylation: characterization and utilization in organic electronic devices. <i>New Journal of Chemistry</i> , 2016 , 40, 385-392	3.6	14
88	Initial Solvent-Driven Nonequilibrium Effect on Structure, Properties, and Dynamics of Polymer Nanocomposites. <i>Physical Review Letters</i> , 2019 , 123, 167801	7.4	14
87	Oriented columnar films of a polar 1,2,3-triazole-based liquid crystal prepared by applying an electric field. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 8256-8265	7.1	14
86	Conjugated Polymer Nanoparticles in Aqueous Media by Assembly with Phospholipids via Dense Alkyl Chain Packing. <i>Macromolecules</i> , 2017 , 50, 6935-6944	5.5	14
85	Synchrotron X-ray reflectivity studies of nanoporous organosilicate thin films with low dielectric constants. <i>Journal of Applied Crystallography</i> , 2006 , 40, s626-s630	3.8	14
84	Thienoisoindigo-Based Semiconductor Nanowires Assembled with 2-Bromobenzaldehyde via Both Halogen and Chalcogen Bonding. <i>Scientific Reports</i> , 2018 , 8, 14448	4.9	14
83	A Thermally Induced Perovskite Crystal Control Strategy for Efficient and Photostable Wide-Bandgap Perovskite Solar Cells. <i>Solar Rrl</i> , 2020 , 4, 2000033	7.1	13

82	Enhanced Mechanical Properties of Polymer Nanocomposites Using Dopamine-Modified Polymers at Nanoparticle Surfaces in Very Low Molecular Weight Polymers. <i>ACS Macro Letters</i> , 2018 , 7, 962-967	6.6	13
81	1,4-Di(3-alkoxy-2-thienyl)-2,5-difluorophenylene: A Building Block Enabling High-Performance Polymer Semiconductors with Increased Open-Circuit Voltages. <i>Macromolecules</i> , 2018 , 51, 5352-5363	5.5	13
80	Periodic arrays of organic crystals on polymer gate dielectric for low-voltage field-effect transistors and complementary inverter. <i>Journal of Materials Chemistry</i> , 2010 , 20, 9047		13
79	Controllable liquid crystal defect arrays induced by an in-plane electric field and their lithographic applications. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 1713-1719	7.1	12
78	Unusual Li-ion storage through anionic redox processes of bacteria-driven tellurium nanorods. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 16978-16987	13	12
77	Synchrotron Radiation Facilities in Korea: Pohang Light Source and Future XFEL Project. <i>Synchrotron Radiation News</i> , 2009 , 22, 4-12	0.6	12
76	Adhesion of poly(4,4?-oxydiphenylene pyromellitimide) to copper metal using a polymeric primer: Effects of miscibility and polyimide precursor origin. <i>Macromolecular Chemistry and Physics</i> , 2000 , 201, 491-499	2.6	12
75	Abrading bulk metal into single atoms <i>Nature Nanotechnology</i> , 2022 ,	28.7	12
74	Ferroelectrically Switching Helical Columnar Assembly Comprising Cisoid Conformers of a 1,2,3-Triazole-based Liquid Crystal. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 2749-2753	16.4	12
73	Creation of liquid-crystal periodic zigzags by surface treatment and thermal annealing. <i>Soft Matter</i> , 2015 , 11, 8584-9	3.6	11
72	Dicyanamide Salts that Adopt Smectic, Columnar, or Bicontinuous Cubic Liquid-Crystalline Mesophases. <i>Chemistry - A European Journal</i> , 2018 , 24, 6399-6411	4.8	11
71	Conjugated polymer nano-ellipsoids assembled with octanoic acid and their polyurethane nanocomposites with simultaneous thermal storage and antibacterial activity. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 63, 33-40	6.3	11
70	Symmetrically functionalized diketopyrrolopyrrole with alkylated thiophene moiety: from synthesis to electronic devices applications. <i>Journal of Materials Science</i> , 2014 , 49, 4215-4224	4.3	11
69	Small-angle neutron scattering study of the miscibility of metallocene-catalyzed octene linear low-density polyethylene and low-density polyethylene blends. <i>Journal of Applied Crystallography</i> , 2009 , 42, 161-168	3.8	11
68	Self-adhesion of poly(4,4?-oxydiphenylene biphenyltetracarboximide) and its adhesion to substrates. <i>Polymer</i> , 2000 , 41, 2105-2111	3.9	11
67	Synthesis and properties of new aromatic polyimides Polymeric materials for light-emitting and liquid-crystal displays. <i>Macromolecular Symposia</i> , 1999 , 142, 73-84	0.8	11
66	Log-Rolling Block Copolymer Cylinders. <i>Macromolecules</i> , 2017 , 50, 3607-3616	5.5	10
65	Shear-solvo defect annihilation of diblock copolymer thin films over a large area. <i>Science Advances</i> , 2019 , 5, eaaw3974	14.3	10

(2015-2017)

64	Direct observation of liquid crystal phases under nanoconfinement: A grazing incidence X-ray diffraction study. <i>Liquid Crystals</i> , 2017 , 44, 713-721	2.3	10
63	Terminal alkyl substitution in an ADA-type nonfullerene acceptor: simultaneous improvements in the open-circuit voltage and short-circuit current for efficient indoor power generation. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 23894-23905	13	10
62	Anisotropic, Organic Ionic Plastic Crystal Mesophases from Persubstituted Imidazolium Pentacyanocyclopentadienide Salts. <i>Chemistry of Materials</i> , 2019 , 31, 9593-9603	9.6	10
61	Machine-Washable Smart Textiles with Photothermal and Antibacterial Activities from Nanocomposite Fibers of Conjugated Polymer Nanoparticles and Polyacrylonitrile. <i>Polymers</i> , 2018 , 11,	4.5	10
60	Nanowires of amorphous conjugated polymers prepared via a surfactant-templating process using an alkylbenzoic acid. <i>Journal of Industrial and Engineering Chemistry</i> , 2017 , 51, 172-177	6.3	9
59	Poly(3-hexylthiophene) Nanoparticles Prepared via a Film Shattering Process and Hybridization with TiO2 for Visible-Light Active Photocatalysis. <i>Macromolecular Research</i> , 2019 , 27, 427-434	1.9	9
58	Molecular orientation of a new anthracene derivative for highly-efficient blue fluorescence OLEDs. <i>Organic Electronics</i> , 2015 , 24, 234-240	3.5	9
57	Long-Term Chemical Aging of Hybrid Halide Perovskites. <i>Nano Letters</i> , 2019 , 19, 5604-5611	11.5	9
56	Solution-grown single-crystalline microwires of a molecular semiconductor with improved charge transport properties. <i>Chemical Communications</i> , 2014 , 50, 8845-8	5.8	9
55	Photocatalytic selective oxidation of the terminal methyl group of dodecane with molecular oxygen over atomically dispersed Ti in a mesoporous SiO2 matrix. <i>Green Chemistry</i> , 2013 , 15, 3387	10	9
54	Supramolecular assembly of collagen fibrils into collagen fiber in fish scales of red seabream, Pagrus major. <i>Journal of Structural Biology</i> , 2009 , 168, 332-6	3.4	9
53	Structure evolution and properties in a rigid polyimide prepared from its flexible poly(amic acid) precursor. <i>Macromolecular Symposia</i> , 1997 , 118, 213-220	0.8	9
52	Cation-dependent compression behavior in low-silica zeolite-X. <i>Journal of the American Chemical Society</i> , 2007 , 129, 4888-9	16.4	9
51	Glass transition behaviours in aromatic poly(amic dialkyl ester) precursors with various chain rigidities. <i>Polymer</i> , 1999 , 40, 2263-2270	3.9	8
50	Design of a Janus-Faced Electrode for Highly Stretchable ZincBilver Rechargeable Batteries. <i>Advanced Functional Materials</i> , 2020 , 30, 2004137	15.6	8
49	Ordered assemblies of Fe3O4 and a donor-acceptor-type Econjugated polymer in nanoparticles for enhanced photoacoustic and magnetic effects. <i>Polymer</i> , 2019 , 161, 205-213	3.9	8
48	General Efficacy of Atomically Dispersed Pt Catalysts for the Chlorine Evolution Reaction: Potential-Dependent Switching of the Kinetics and Mechanism. <i>ACS Catalysis</i> , 2021 , 11, 12232-12246	13.1	8
47	Nucleation and growth of a helical nanofilament (B4) liquid-crystal phase confined in nanobowls. <i>Soft Matter</i> , 2015 , 11, 7778-82	3.6	7

Orientation Control of Semiconducting Polymers Using Microchannel Molds. ACS Nano, 2020, 14, 12951-129617 46 Molecular Orientation Control of Liquid Crystal Organic Semiconductor for High-Performance 45 9.5 7 Organic Field-Effect Transistors. ACS Applied Materials & Transistors. ACS Applied Materials & Transistors. ACS Applied Materials & Transistors. 11125-11133 Revealing Charge Transfer at the Interface of Spinel Oxide and Ceria during CO Oxidation. ACS 44 13.1 7 Catalysis, 2021, 11, 1516-1527 Nanoconfined heliconical structure of twist-bend nematic liquid crystal phase. Liquid Crystals, 2019, 6 2.3 43 46, 316-325 Photothermal Polymer Nanocomposites of Tungsten Bronze Nanorods with Enhanced Tensile 6 42 4.5 Elongation at Low Filler Contents. Polymers, 2019, 11, A Morphological Transition of Inverse Mesophases of a Branched-Linear Block Copolymer Guided 6 3.6 41 by Using Cosolvents. *Angewandte Chemie*, **2015**, 127, 10629-10633 Time-resolved SAXS studies on crystallization behavior of poly#thylene isophthalate-co-ethylene 0.8 6 40 terephthalate II. Macromolecular Symposia, 2002, 190, 173-184 Suppressing High-Current-Induced Phase Separation in Ni-Rich Layered Oxides by Electrochemically 6 39 24 Manipulating Dynamic Lithium Distribution. Advanced Materials, 2021, 33, e2105337 Synthesis, Molecular Packing, and Electrical Properties of New Regioisomeric n-type Semiconducting Molecules with Modification of Alkyl Substituents Position. ACS Applied Materials 38 6 9.5 & Interfaces, 2019, 11, 47170-47181 Cybotactic behavior in the de Vries smectic-A* liquid-crystal structure formed by a 37 2.4 silicon-containing molecule. Physical Review E, 2014, 89, 032502 Nanorod-assembled spinel Li1.05Mn1.95O4 rods with a central tunnel along the rod-axis for high 36 6.7 5 rate capability of rechargeable lithium-ion batteries. Electrochimica Acta, 2010, 55, 8888-8893 A study of the human hair structure with a Zernike phase contrast X-ray microscope. Journal of 35 1.9 Microscopy, 2007, 228, 107-9 Manipulation of Supramolecular Columnar Structures of H-Bonded Donor-Acceptor Units through 34 3.2 4 Geometrical Nanoconfinement. ChemPhysChem, 2019, 20, 890-897 Synthesis and structural analysis of dimethylaminophenyl-end-capped diketopyrrolopyrrole for 33 highly stable electronic devices with polymeric gate dielectric. New Journal of Chemistry, 2018, 42, 4052-4660CH bond arylation of anilides inside copper-exchanged zeolites. Journal of Molecular Catalysis A, 32 4 2016, 417, 64-70 Reversible Ligand Exchange in Atomically Dispersed Catalysts for Modulating the Activity and 31 Selectivity of the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, **2021**, 60, 2052 $\frac{76}{20}$ 534 Time-resolved synchrotron X-ray scattering studies on crystallization behaviors of poly(ethylene terephthalate) copolymers containing 1,4-cyclohexylenedimethylene units. Macromolecular 30 1.9 3 Research, 2014, 22, 194-202 Domain swelling in ARB-type triblock copolymers via self-adjusting effective dispersity. Soft Matter, 3.6 29 **2017**, 13, 5527-5534

(2021-2015)

28	Pressure-Induced Amorphization of Small Pore Zeolites-the Role of Cation-H2O Topology and Anti-glass Formation. <i>Scientific Reports</i> , 2015 , 5, 15056	4.9	3
27	Two-dimensional multiwire gas proportional detector for X-ray photon correlation spectroscopy of condensed matter. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 587, 434-440	1.2	3
26	Lyotropic Chromonic Liquid Crystals and Their Impurities Reveal the Importance of the Position of Functional Groups in Self-Assembly. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 9246-9254	3.4	3
25	Tailored Polymer Gate Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits. <i>ACS Applied Materials & Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits. ACS Applied Materials & Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits. ACS Applied Materials & Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits. ACS Applied Materials & Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits. ACS Applied Materials & Dielectric Engineering to Optimize Flexible Organic Field-Effect Transistors and Complementary Integrated Circuits.</i>	9.5	3
24	Substituted Azolium Disposition: Examining the Effects of Alkyl Placement on Thermal Properties. <i>Crystals</i> , 2019 , 9, 34	2.3	3
23	Impact of Intermolecular Interactions Between a Diketopyrrolopyrrole-Based Conjugated Polymer and Bromobenzaldehyde on Field-Effect Transistors. <i>Macromolecular Research</i> , 2021 , 29, 89-97	1.9	3
22	Aqueous dispersions of thienoisoindigo-based semiconductor nanorods assembled with 2-bromobenzaldehyde and a phospholipid. <i>Journal of Molecular Liquids</i> , 2019 , 288, 111046	6	2
21	Control of Particle Dispersion with Autophobic Dewetting in Polymer Nanocomposites. <i>Macromolecules</i> , 2020 , 53, 4836-4844	5.5	2
20	Growth of n-type organic semiconductor for low-voltage transistors based on an ALD grown Al2O3 gate dielectric. <i>Synthetic Metals</i> , 2013 , 185-186, 103-108	3.6	2
19	Selective, Stable, Bias-Free, and Efficient Solar Hydrogen Peroxide Production on Inorganic Layered Materials. <i>Advanced Functional Materials</i> ,2110412	15.6	2
18	Enhanced hydrolytic and electrical stability of eco-friendly processed polyimide gate dielectrics for organic transistors. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 14370-14377	7.1	2
17	Directing Polymorphism in the Helical Nanofilament Phase. <i>Chemistry - A European Journal</i> , 2021 , 27, 7108-7113	4.8	2
16	Position resolution and energy spectra from a two-dimensional gas proportional detector in the region of the krypton K-edge. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005 , 550, 292-304	1.2	1
15	Fabrication of high-performance SnSe2 thermoelectric thin films with preferred crystallographic orientation. <i>Applied Physics Letters</i> , 2022 , 120, 023901	3.4	1
14	Ferroelectrically Switching Helical Columnar Assembly Comprising Cisoid Conformers of a 1,2,3-Triazole-based Liquid Crystal. <i>Angewandte Chemie</i> , 2019 , 131, 2775-2779	3.6	1
13	Tailored growth of graphene oxide liquid crystals with controlled polymer crystallization in GO-polymer composites. <i>Nanoscale</i> , 2021 , 13, 2720-2727	7.7	1
12	Dissolving Diamond: Kinetics of the Dissolution of (100) and (110) Single Crystals in Nickel and Cobalt Films. <i>Chemistry of Materials</i> , 2022 , 34, 2599-2611	9.6	1
11	Strong Bathochromic Shift of Conjugated Polymer Nanowires Assembled with a Liquid Crystalline Alkyl Benzoic Acid via a Film Dispersion Process <i>ACS Omega</i> , 2021 , 6, 34876-34888	3.9	1

10	Ordered Mesoporous Carbons with Graphitic Tubular Frameworks by Dual Templating for Efficient Electrocatalysis and Energy Storage. <i>Angewandte Chemie</i> , 2021 , 133, 1461-1469	3.6	О
9	Synthesis of Vinyl-Addition Polynorbornene Copolymers Bearing Pendant n-Alkyl Chains and Systematic Investigation of Their Properties. <i>Macromolecules</i> , 2021 , 54, 6762-6771	5.5	O
8	Reversible Ligand Exchange in Atomically Dispersed Catalysts for Modulating the Activity and Selectivity of the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2021 , 133, 20691-20697	3.6	0
7	Enhancement of Piezoelectricity in Dimensionally Engineered Metal-Halide Perovskites Induced by Deep Level Defects. <i>Advanced Energy Materials</i> ,2200181	21.8	O
6	Ultrathin polycrystalline 6,13-Bis(triisopropylsilylethynyl)-pentacene films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 021506	2.9	
5	Organic Electronics: Self-Assembled, Millimeter-Sized TIPS-Pentacene Spherulites Grown on Partially Crosslinked Polymer Gate Dielectric (Adv. Funct. Mater. 24/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 3795-3795	15.6	
4	Monolayers: Quick, Large-Area Assembly of a Single-Crystal Monolayer of Spherical Particles by Unidirectional Rubbing (Adv. Mater. 27/2014). <i>Advanced Materials</i> , 2014 , 26, 4632-4632	24	
3	Fabrication of disordered porous structures by solvent-assisted reorganisation of liquid crystal materials. <i>Liquid Crystals</i> , 2016 , 43, 1198-1207	2.3	
2	Selective CO adsorption and bathochromic shift in a phosphocholine-based lipid and conjugated polymer assembly <i>RSC Advances</i> , 2022 , 12, 8385-8393	3.7	
1	Super-hydration and reduction of manganese oxide minerals at shallow terrestrial depths <i>Nature Communications</i> , 2022 , 13, 1942	17.4	