

# Xu-Ming Xie

## List of Publications by Year in descending order

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68  
papers

3,104  
citations

136885

32  
h-index

155592

55  
g-index

68  
all docs

68  
docs citations

68  
times ranked

4501  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-healable, super tough graphene oxideâ€“poly(acrylic acid) nanocomposite hydrogels facilitated by dual cross-linking effects through dynamic ionic interactions. <i>Journal of Materials Chemistry B</i> , 2015, 3, 4001-4008.	2.9	246
2	Smart Hybridization of TiO <sub>2</sub> Nanorods and Fe <sub>3</sub> O <sub>4</sub> Nanoparticles with Pristine Graphene Nanosheets: Hierarchically Nanoengineered Ternary Heterostructures for High-Rate Lithium Storage. <i>Advanced Functional Materials</i> , 2015, 25, 3341-3350.	7.8	183
3	Self-healable, tough and highly stretchable ionic nanocomposite physical hydrogels. <i>Soft Matter</i> , 2015, 11, 4235-4241.	1.2	143
4	Studies on the properties and formation mechanism of flexible nanocomposite hydrogels from cellulose nanocrystals and poly(acrylic acid). <i>Journal of Materials Chemistry</i> , 2012, 22, 22467.	6.7	138
5	Ultrathin MXene Nanosheets Decorated with TiO <sub>2</sub> Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Liâ€“S Batteries. <i>Small</i> , 2018, 14, e1802443.	5.2	125
6	Flexible and robust MoS <sub>2</sub> â€“graphene hybrid paper cross-linked by a polymer ligand: a high-performance anode material for thin film lithium-ion batteries. <i>Chemical Communications</i> , 2013, 49, 10305.	2.2	122
7	Highly stretchable and super tough nanocomposite physical hydrogels facilitated by the coupling of intermolecular hydrogen bonds and analogous chemical crosslinking of nanoparticles. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1187-1192.	2.9	116
8	Molecular level distribution of black phosphorus quantum dots on nitrogen-doped graphene nanosheets for superior lithium storage. <i>Nano Energy</i> , 2016, 30, 347-354.	8.2	107
9	Dually cross-linked single network poly(acrylic acid) hydrogels with superior mechanical properties and water absorbency. <i>Soft Matter</i> , 2016, 12, 5420-5428.	1.2	97
10	Surface Stress Effects on the Bending Direction and Twisting Chirality of Lamellar Crystals of Chiral Polymer. <i>Macromolecules</i> , 2010, 43, 5762-5770.	2.2	94
11	High-concentration organic solutions of poly(styrene-co-butadiene-co-styrene)-modified graphene sheets exfoliated from graphite. <i>Carbon</i> , 2011, 49, 3529-3537.	5.4	86
12	The production of flexible and transparent conductive films of carbon nanotube/graphene networks coordinated by divalent metal (Cu, Ca or Mg) ions. <i>Carbon</i> , 2011, 49, 3371-3375.	5.4	77
13	Delicate ternary heterostructures achieved by hierarchical co-assembly of Ag and Fe <sub>3</sub> O <sub>4</sub> nanoparticles on MoS <sub>2</sub> nanosheets: morphological and compositional synergy in reversible lithium storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2726-2733.	5.2	76
14	Super Tough and Intelligent Multibond Network Physical Hydrogels Facilitated by Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Nanosheets. <i>ACS Nano</i> , 2022, 16, 1567-1577.	7.3	74
15	Constructing Novel Si@SnO <sub>2</sub> Coreâ€“Shell Heterostructures by Facile Self-Assembly of SnO <sub>2</sub> Nanowires on Silicon Hollow Nanospheres for Large, Reversible Lithium Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 7092-7100.	4.0	69
16	Hierarchical assembly of SnO <sub>2</sub> nanowires on MnO <sub>2</sub> nanosheets: a novel 1/2D hybrid architecture for high-capacity, reversible lithium storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6477-6483.	5.2	66
17	Dual cross-linked networks hydrogels with unique swelling behavior and high mechanical strength: Based on silica nanoparticle and hydrophobic association. <i>Journal of Colloid and Interface Science</i> , 2012, 381, 107-115.	5.0	64
18	In situ synthesis of poly(acrylic acid) physical hydrogels from silicananoparticles. <i>Soft Matter</i> , 2012, 8, 1058-1063.	1.2	61

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19	Synergistic effect of Cu <sup>2+</sup> -coordinated carbon nanotube/graphene network on the electrical and mechanical properties of polymer nanocomposites. <i>Journal of Materials Chemistry</i> , 2011, 21, 18723.	6.7	56
20	Coordination-Driven Hierarchical Assembly of Silver Nanoparticles on MoS <sub>2</sub> Nanosheets for Improved Lithium Storage. <i>Chemistry - an Asian Journal</i> , 2014, 9, 1519-1524.	1.7	55
21	Homogeneous and Real Super Tough Multi-Bond Network Hydrogels Created through a Controllable Metal Ion Permeation Strategy. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 42856-42864.	4.0	51
22	Robust and self-healable nanocomposite physical hydrogel facilitated by the synergy of ternary crosslinking points in a single network. <i>Journal of Materials Chemistry B</i> , 2016, 4, 6221-6227.	2.9	49
23	Study of multi-monomer melt-grafting onto polypropylene in an extruder. <i>Polymer International</i> , 2000, 49, 1677-1683.	1.6	48
24	BN Nanosheets as 2D Substrates to Load OD Fe <sub>3</sub> O <sub>4</sub> Nanoparticles: A Hybrid Anode Material for Lithium-Ion Batteries. <i>Chemistry - an Asian Journal</i> , 2016, 11, 828-833.	1.7	48
25	Aluminothermic reduction enabled synthesis of silicon hollow microspheres from commercialized silica nanoparticles for superior lithium storage. <i>Chemical Communications</i> , 2016, 52, 8401-8404.	2.2	48
26	Facile and Green Production of Impurity-Free Aqueous Solutions of WS <sub>2</sub> Nanosheets by Direct Exfoliation in Water. <i>Small</i> , 2016, 12, 6703-6713.	5.2	44
27	Predictive supracolloidal helices from patchy particles. <i>Scientific Reports</i> , 2014, 4, 7021.	1.6	42
28	Elaborately Designed Hierarchical Heterostructures Consisting of Carbon-Coated TiO <sub>2</sub> (B) Nanosheets Decorated with Fe <sub>3</sub> O <sub>4</sub> Nanoparticles for Remarkable Synergy in High-Rate Lithium Storage. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500239.	1.9	41
29	Tuning the solubility of boron nitridenanosheets in organic solvents by using block copolymer as a Janus-modifier. <i>Chemical Communications</i> , 2013, 49, 388-390.	2.2	38
30	A universal strategy for the hierarchical assembly of functional 0/2D nanohybrids. <i>Chemical Communications</i> , 2013, 49, 1642.	2.2	34
31	Tough superabsorbent poly(acrylic acid) nanocomposite physical hydrogels fabricated by a dually cross-linked single network strategy. <i>Chinese Chemical Letters</i> , 2016, 27, 312-316.	4.8	33
32	Polystyrene-grafted graphene with improved solubility in organic solvents and its compatibility with polymers. <i>Materials Chemistry and Physics</i> , 2011, 130, 794-799.	2.0	32
33	Frustrated Crystallization in the Coupled Viscoelastic Phase Separation. <i>Macromolecules</i> , 2012, 45, 8336-8346.	2.2	30
34	Dispersion and noncovalent modification of multiwalled carbon nanotubes by various polystyrene-based polymers. <i>Journal of Applied Polymer Science</i> , 2008, 109, 3525-3532.	1.3	28
35	Harnessing Dynamic Covalent Bonds in Patchy Nanoparticles: Creating Shape-Shifting Building Blocks for Rational and Responsive Self-Assembly. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1221-1226.	2.1	27
36	Phase transition temperature controllable poly(acrylamide-co-acrylic acid) nanocomposite physical hydrogels with high strength. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2016, 34, 1261-1269.	2.0	27

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37	A universal strategy for the <i>in situ</i> synthesis of TiO <sub>2</sub> (B) nanosheets on pristine carbon nanomaterials for high-rate lithium storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7070-7079.	5.2	27
38	Scalable production of transition metal disulphide/graphite nanoflake composites for high-performance lithium storage. <i>RSC Advances</i> , 2014, 4, 41543-41550.	1.7	26
39	Multi-bond network hydrogels with robust mechanical and self-healable properties. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2017, 35, 1253-1267.	2.0	26
40	Synthesis of hyperbranched aromatic polyamide-imide and its grafting onto multiwalled carbon nanotubes. <i>Journal of Applied Polymer Science</i> , 2007, 106, 2413-2421.	1.3	25
41	Biomimetic Gradient Hydrogel Actuators with Ultrafast Thermo-Responsiveness and High Strength. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 32541-32550.	4.0	25
42	How can multi-bond network hydrogels dissipate energy more effectively: an investigation on the relationship between network structure and properties. <i>Soft Matter</i> , 2020, 16, 4407-4413.	1.2	24
43	Processable and Robust MoS <sub>2</sub> Paper Chemically Cross-Linked with Polymeric Ligands by the Coordination of Divalent Metal Ions. <i>Chemistry - an Asian Journal</i> , 2013, 8, 817-823.	1.7	23
44	Toughening mechanism of nanocomposite physical hydrogels fabricated by a single gel network with dual crosslinking - The roles of the dual crosslinking points. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2017, 35, 25-35.	2.0	22
45	Water absorbency of poly(sodium acrylate) superabsorbents crosslinked with modified poly(ethylene) Tj ETQq1 1 0,784314 rgBT /Overlock 10 Tf 5	1.3	18
46	Compatibilization and toughening of immiscible ternary blends of polyamide 6, polypropylene (or a Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 1652-1658.	1.3	18
47	Super-tough and rapidly self-recoverable multi-bond network hydrogels facilitated by 2-ureido-4[1H]-pyrimidone dimers. <i>Chinese Chemical Letters</i> , 2021, 32, 521-524.	4.8	17
48	Investigation of hydrolysis in poly(ethylene terephthalate) by FTIR-ATR. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2014, 32, 230-235.	2.0	16
49	Improved Mechanical Properties of Graphene Oxide/Poly(ethylene oxide) Nanocomposites by Dynamic Interfacial Interaction of Coordination. <i>Australian Journal of Chemistry</i> , 2014, 67, 121.	0.5	16
50	Styrene-assisted melt free-radical grafting of pentaerythritol triacrylate onto polypropylene and its crystallization behavior. <i>Journal of Applied Polymer Science</i> , 2008, 108, 1737-1743.	1.3	14
51	Influences of component ratio of minor phases and charge sequence on the morphology and mechanical properties of PP/PS/PA6 ternary blends. <i>Polymer Bulletin</i> , 2011, 66, 841-852.	1.7	13
52	Correlation of Morphology Evolution with Superior Mechanical Properties in PA6/PS/PP/SEBS Blends Compatibilized by Multi-phase Compatibilizers. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2018, 36, 848-858.	2.0	11
53	Direct Exfoliation of High-Quality, Atomically Thin MoSe <sub>2</sub> Layers in Water. <i>Advanced Sustainable Systems</i> , 2018, 2, 1700107.	2.7	11
54	Coordination-Driven Hierarchical Assembly of Hybrid Nanostructures Based on 2D Materials. <i>Small</i> , 2020, 16, 1902779.	5.2	11

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55	Carboxyl Terminated Polymer Chain Extension Using a Bisoxazoline Coupling Agent: Monte Carlo Simulation. <i>Macromolecular Theory and Simulations</i> , 2005, 14, 586-595.	0.6	9
56	Investigation of crystallization of PVCH-PE-PVCH triblock copolymer in supercritical carbon dioxide. <i>Journal of Applied Polymer Science</i> , 2006, 102, 2584-2589.	1.3	9
57	Revealing formation process of microcapsules during in situ polymerization via confocal laser scanning fluorescence microscopy. <i>Colloid and Polymer Science</i> , 2011, 289, 1719-1728.	1.0	9
58	High-concentration aliphatic and aromatic dispersions of single- and few-layer graphene noncovalently modified by block copolymer crystallization. <i>Carbon</i> , 2012, 50, 4760-4764.	5.4	9
59	Role of compatibilizer in multicomponent polymer mixtures under shear flow. <i>Soft Matter</i> , 2013, 9, 255-260.	1.2	8
60	Structural reorganization and crack-healing properties of hydrogels based on dynamic diselenide linkages. <i>Science and Technology of Advanced Materials</i> , 2020, 21, 450-460.	2.8	8
61	The Morphology and Dynamics of Substrate Effects on Spinodal Decomposition in Binary Mixtures with Short-Range Potential. <i>Macromolecular Theory and Simulations</i> , 2006, 15, 226-237.	0.6	7
62	Interface-Induced Coarsening Process in Polymer Blends. <i>Journal of Colloid and Interface Science</i> , 2001, 234, 24-27.	5.0	6
63	Stretchable alkaline quasi-solid-state electrolytes created by super-tough, fatigue-resistant and alkali-resistant multi-bond network hydrogels. <i>Chinese Chemical Letters</i> , 2023, 34, 107470.	4.8	6
64	High-performance multi-functional graphene/hexagonal boron nitride/poly(ethylene oxide) nanocomposites through enhanced interfacial interaction by coordination. <i>RSC Advances</i> , 2018, 8, 36761-36768.	1.7	5
65	Monte Carlo simulation of diffusion effects on chain-extension reactions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2902-2911.	2.4	4
66	Li-S Batteries: Ultrathin MXene Nanosheets Decorated with TiO <sub>2</sub> Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li-S Batteries ( <i>Small</i> 41/2018). <i>Small</i> , 2018, 14, 1870190.	5.2	3
67	Thermoreversible Gelation Mechanism of Polystyrene/CS <sub>2</sub> Solutions. <i>Polymer Journal</i> , 1998, 30, 435-438.	1.3	2
68	Preparation of polypropylene/acrylonitrile-styrene copolymer alloys by one-step reactive blending. <i>Journal of Applied Polymer Science</i> , 2001, 82, 1284-1290.	1.3	1