Hiroaki Sai

List of Publications by Citations

61 papers	6,279 citations	31 h-index	64 g-index
64 ext. papers	6,933 ext. citations	12.5 avg, IF	5.44 L-index

#	Paper	IF	Citations
61	Functionalized single graphene sheets derived from splitting graphite oxide. *Journal of Physical Chemistry B*, **2006**, 110, 8535-9	3.4	2925
60	Crystallization kinetics of organic-inorganic trihalide perovskites and the role of the lead anion in crystal growth. *Journal of the American Chemical Society*, **2015**, 137, 2350-8	16.4	266
59	Thermally induced structural evolution and performance of mesoporous block copolymer-directed alumina perovskite solar cells. *ACS Nano*, **2014**, 8, 4730-9	16.7	241
58	Influence of Thermal Processing Protocol upon the Crystallization and Photovoltaic Performance of Organic–Inorganic Lead Trihalide Perovskites. *Journal of Physical Chemistry C*, **2014**, 118, 17171-17177	3.8	214
57	Hierarchical porous polymer scaffolds from block copolymers. *Science*, **2013**, 341, 530-4	33.3	214
56	Ultrasmall sub-10 nm near-infrared fluorescent mesoporous silica nanoparticles. *Journal of the American Chemical Society*, **2012**, 134, 13180-3	16.4	166
55	Enhanced Out-of-Plane Conductivity and Photovoltaic Performance in n = 1 Layered Perovskites through Organic Cation Design. *Journal of the American Chemical Society*, **2018**, 140, 7313-7323	16.4	161
54	Multicompartment mesoporous silica nanoparticles with branched shapes: an epitaxial growth mechanism. *Science*, **2013**, 340, 337-41	33.3	132
53	Control of Solid-State Dye-Sensitized Solar Cell Performance by Block-Copolymer-Directed TiO2 Synthesis. *Advanced Functional Materials*, **2010**, 20, 1787-1796	15.6	125
52	One-pot synthesis of platinum-based nanoparticles incorporated into mesoporous niobium oxide-carbon composites for fuel cell electrodes. *Journal of the American Chemical Society*, **2009**, 131, 9389-95	16.4	113
51	Highly aminated mesoporous silica nanoparticles with cubic pore structure. *Journal of the American Chemical Society*, **2011**, 133, 172-5	16.4	105
50	A silica sol-gel design strategy for nanostructured metallic materials. *Nature Materials*, **2012**, 11, 460-7	27	95
49	Designing block copolymer architectures for targeted membrane performance. *Polymer*, **2014**, 55, 347-353	3.9	89
48	Hierarchically Porous Materials from Block Copolymers. *Chemistry of Materials*, **2014**, 26, 339-347	9.6	88
47	Solution Small-Angle X-ray Scattering as a Screening and Predictive Tool in the Fabrication of Asymmetric Block Copolymer Membranes. *ACS Macro Letters*, **2012**, 1, 614-617	6.6	87
46	Block copolymer self-assembly-directed synthesis of mesoporous gyroidal superconductors. *Science Advances*, **2016**, 2, e1501119	14.3	81
45	Supramolecular-covalent hybrid polymers for light-activated mechanical actuation. *Nature Materials*, **2020**, 19, 900-909	27	78

44	Direct Crystallization Route to Methylammonium Lead Iodide Perovskite from an Ionic Liquid. *Chemistry of Materials*, **2015**, 27, 3197-3199	9.6	65
43	Ordered mesoporous silica nanoparticles with and without embedded iron oxide nanoparticles: structure evolution during synthesis. *Journal of Materials Chemistry*, **2010**, 20, 7807		65
42	Ordered three- and five-ply nanocomposites from ABC block terpolymer microphase separation with niobia and aluminosilicate sols. *Chemistry of Materials*, **2009**, 21, 5466-5473	9.6	58
41	Fast and programmable locomotion of hydrogel-metal hybrids under light and magnetic fields. *Science Robotics*, **2020**, 5,	18.6	55
40	Synthesis and Formation Mechanism of Aminated Mesoporous Silica Nanoparticles. *Chemistry of Materials*, **2012**, 24, 3895-3905	9.6	52
39	Networked and chiral nanocomposites from ABC triblock terpolymer coassembly with transition metal oxide nanoparticles. *Journal of Materials Chemistry*, **2012**, 22, 1078-1087		52
38	Linking experiment and theory for three-dimensional networked binary metal nanoparticle-triblock terpolymer superstructures. *Nature Communications*, **2014**, 5, 3247	17.4	51
37	Impact of the organic halide salt on final perovskite composition for photovoltaic applications. *APL Materials*, **2014**, 2, 081802	5.7	47
36	Tunable exciton binding energy in 2D hybrid layered perovskites through donor-acceptor interactions within the organic layer. *Nature Chemistry*, **2020**, 12, 672-682	17.6	46
35	Block copolymer directed one-pot simple synthesis of L10-phase FePt nanoparticles inside ordered mesoporous aluminosilicate/carbon composites. *ACS Nano*, **2011**, 5, 1018-25	16.7	46
34	Metal Nanoparticle/Block Copolymer Composite Assembly and Disassembly. *Chemistry of Materials*, **2009**, 21, 5578-5584	9.6	46
33	Crystal-Phase Transitions and Photocatalysis in Supramolecular Scaffolds. *Journal of the American Chemical Society*, **2017**, 139, 6120-6127	16.4	43
32	Structure and chemical stability in perovskite–polymer hybrid photovoltaic materials. *Journal of Materials Chemistry A*, **2019**, 7, 1687-1699	13	40
31	Monolithic gyroidal mesoporous mixed titanium-niobium nitrides. *ACS Nano*, **2014**, 8, 8217-23	16.7	40
30	Ordered mesoporous titania from highly amphiphilic block copolymers: tuned solution conditions enable highly ordered morphologies and ultra-large mesopores. *Journal of Materials Chemistry A*, **2015**, 3, 11478-11492	13	31
29	Formation pathways of mesoporous silica nanoparticles with dodecagonal tiling. *Nature Communications*, **2017**, 8, 252	17.4	31
28	Chromophore Dipole Directs Morphology and Photocatalytic Hydrogen Generation. *Journal of the American Chemical Society*, **2018**, 140, 4965-4968	16.4	29
27	Three-Component Porous Carbon–Titania Nanocomposites through Self-Assembly of ABCBA Block Terpolymers with Titania Sols. *Macromolecules*, **2009**, 42, 6682-6687	5.5	28

26	Access to ordered porous molybdenum oxycarbide/carbon nanocomposites. *Angewandte Chemie - International Edition*, **2012**, 51, 12892-6	16.4	24
25	3D Printing of Supramolecular Polymer Hydrogels with Hierarchical Structure. *Small*, **2021**, 17, e2005743	11	24
24	Oriented Multiwalled Organic□Co(OH)2 Nanotubes for Energy Storage. *Advanced Functional Materials*, **2018**, 28, 1702320	15.6	23
23	Stimuli-Responsive Shapeshifting Mesoporous Silica Nanoparticles. *Nano Letters*, **2016**, 16, 651-5	11.5	22
22	Supramolecular Exchange among Assemblies of Opposite Charge Leads to Hierarchical Structures. *Journal of the American Chemical Society*, **2020**, 142, 12216-12225	16.4	21
21	Block copolymer directed nanoporous metal thin films. *Macromolecular Rapid Communications*, **2010**, 31, 1960-4	4.8	20
20	Water-Based Synthesis of Ultrasmall PEGylated Gold□Silica Core□Shell Nanoparticles with Long-Term Stability. *Chemistry of Materials*, **2014**, 26, 5201-5207	9.6	18
19	Chromophore amphiphile□polyelectrolyte hybrid hydrogels for photocatalytic hydrogen production. *Journal of Materials Chemistry A*, **2020**, 8, 158-168	13	17
18	Impact of charge switching stimuli on supramolecular perylene monoimide assemblies. *Chemical Science*, **2019**, 10, 5779-5786	9.4	14
17	Ordered mesoporous crystalline aluminas from self-assembly of ABC triblock terpolymer□butanol□alumina sols. *RSC Advances*, **2015**, 5, 49287-49294	3.7	12
16	Formation of Periodically-Ordered Calcium Phosphate Nanostructures by Block Copolymer-Directed Self-Assembly. *Chemistry of Materials*, **2016**, 28, 838-847	9.6	10
15	Supramolecular and Hybrid Bonding Polymers. *Israel Journal of Chemistry*, **2020**, 60, 124-131	3.4	9
14	Synthesis and Formation Mechanism of All-Organic Block Copolymer-Directed Templating of Laser-Induced Crystalline Silicon Nanostructures. *ACS Applied Materials & Interfaces*, **2018**, 10, 42777-42783	9.5	9
13	Towards mesoporous Keggin-type polyoxometalates □systematic study on organic template removal. *Journal of Materials Chemistry A*, **2013**, 1, 6238	13	8
12	Supramolecular Interactions and Morphology of Self-Assembling Peptide Amphiphile Nanostructures. *Nano Letters*, **2021**, 21, 6146-6155	11.5	8
11	□ber die Zug□glichkeit zu geordneten por□en Molybd□oxycarbid/Kohlenstoff-Nanokompositen. *Angewandte Chemie*, **2012**, 124, 13066-13070	3.6	5
10	Photocatalytic Aqueous CO Reduction to CO and CH Sensitized by Ullazine Supramolecular Polymers.. *Journal of the American Chemical Society*, **2022**,	16.4	5
9	Growth of Extra-Large Chromophore Supramolecular Polymers for Enhanced Hydrogen Production. *Nano Letters*, **2021**, 21, 3745-3752	11.5	5

List of Publications

8	Polymorphism and Optoelectronic Properties in Crystalline Supramolecular Polymers. *Chemistry of Materials*, **2021**, 33, 706-718	9.6	5
7	Controlling the coassembly of highly amphiphilic block copolymers with a hydrolytic sol by solvent exchange. *RSC Advances*, **2015**, 5, 22499-22502	3.7	4
6	Imaging Supramolecular Morphogenesis with Confocal Laser Scanning Microscopy at Elevated Temperatures. *Nano Letters*, **2020**, 20, 4234-4241	11.5	4
5	Ordered nanostructured ceramic□metal composites through multifunctional block copolymer-metal nanoparticle self-assembly. *Journal of Sol-Gel Science and Technology*, **2014**, 70, 286-291	2.3	3
4	Hybrid gels bulk interfacial complexation of supramolecular polymers and polyelectrolytes. *Soft Matter*, **2021**, 17, 4949-4956	3.6	3
3	Energy Storage: Oriented Multiwalled Organic□o(OH)2 Nanotubes for Energy Storage (Adv. Funct. Mater. 3/2018). *Advanced Functional Materials*, **2018**, 28, 1870019	15.6	1
2	Supramolecular Copolymers of Peptides and Lipidated Peptides and Their Therapeutic Potential.. *Journal of the American Chemical Society*, **2022**, 144, 5562-5574	16.4	0
1	Crystalline Supramolecular Polymers: Dynamics, Chirality, and Function. *Israel Journal of Chemistry*, **2021**, 61, 873-883	3.4	