Sungho Lee

List of Publications by Citations

59 papers	1,274 citations	22 h-index	34 g-index
64 ext. papers	1,590 ext. citations	7.5 avg, IF	4.85 L-index

#	Paper	IF	Citations
59	Carbonization of a stable β-sheet-rich silk protein into a pseudographitic pyroprotein. *Nature Communications*, **2015**, 6, 7145	17.4	147
58	Sodium-Ion Storage in Pyroprotein-Based Carbon Nanoplates. *Advanced Materials*, **2015**, 27, 6914-21	24	107
57	Fabrication of low-cost carbon fibers using economical precursors and advanced processing technologies. *Carbon*, **2019**, 142, 610-649	10.4	94
56	Ultra-high dispersion of graphene in polymer composite via solvent free fabrication and functionalization. *Scientific Reports*, **2015**, 5, 9141	4.9	83
55	Iron oxide/porous carbon as a heterogeneous Fenton catalyst for fast decomposition of hydrogen peroxide and efficient removal of methylene blue. *Journal of Materials Chemistry A*, **2017**, 5, 748-755	13	63
54	Comprehensive stabilization mechanism of electron-beam irradiated polyacrylonitrile fibers to shorten the conventional thermal treatment. *Scientific Reports*, **2016**, 6, 27330	4.9	40
53	Ultra strong pyroprotein fibres with long-range ordering. *Nature Communications*, **2017**, 8, 74	17.4	37
52	High Performance Graphitic Carbon from Waste Polyethylene: Thermal Oxidation as a Stabilization Pathway Revisited. *Chemistry of Materials*, **2017**, 29, 9518-9527	9.6	36
51	Understanding the Origin of Formation and Active Sites for Thiomolybdate $[Mo_3S_{13}]^{2-}$ Clusters as Hydrogen Evolution Catalyst through the Selective Control of Sulfur Atoms. *ACS Catalysis*, **2018**, 8, 5221-5227	13.1	36
50	Synthesis and properties of an atomically thin carbon nanosheet similar to graphene and its promising use as an organic thin film transistor. *Carbon*, **2013**, 55, 299-304	10.4	34
49	Multi-functional nitrogen self-doped graphene quantum dots for boosting the photovoltaic performance of BHJ solar cells. *Nano Energy*, **2017**, 34, 36-46	17.1	33
48	Efficient organic solar cells with solution-processed carbon nanosheets as transparent electrodes. *Applied Physics Letters*, **2013**, 102, 043304	3.4	30
47	Strengthened PAN-based carbon fibers obtained by slow heating rate carbonization. *Scientific Reports*, **2016**, 6, 22988	4.9	30
46	Multicore-shell nanofiber architecture of polyimide/polyvinylidene fluoride blend for thermal and long-term stability of lithium ion battery separator. *Scientific Reports*, **2016**, 6, 36977	4.9	29
45	Insight into the superior activity of bridging sulfur-rich amorphous molybdenum sulfide for electrochemical hydrogen evolution reaction. *Applied Catalysis B: Environmental*, **2019**, 258, 117995	21.8	28
44	Efficient ITO-free polymer solar cells with pitch-converted carbon nanosheets as novel solution-processable transparent electrodes. *Solar Energy Materials and Solar Cells*, **2013**, 115, 1-6	6.4	28
43	Bi-axial grown amorphous MoS bridged with oxygen on r-GO as a superior stable and efficient nonprecious catalyst for hydrogen evolution. *Scientific Reports*, **2017**, 7, 41190	4.9	26

42	One-step synthesis of carbon nanosheets converted from a polycyclic compound and their direct use as transparent electrodes of ITO-free organic solar cells. *Nanoscale*, **2014**, 6, 678-82	7.7	26
41	Evaluating the stabilization of isotropic pitch fibers for optimal tensile properties of carbon fibers. *Journal of Industrial and Engineering Chemistry*, **2017**, 45, 316-322	6.3	26
40	Two step microwave plasma carbonization including low plasma power pre-carbonization for polyacrylonitrile based carbon fiber. *Polymer*, **2015**, 69, 123-128	3.9	23
39	Carbon nanosheets by the graphenization of ungraphitizable isotropic pitch molecules. *Carbon*, **2017**, 121, 479-489	10.4	23
38	Highly flexible and bendable carbon nanosheets as transparent conducting electrodes for organic solar cells. *Carbon*, **2015**, 81, 546-551	10.4	22
37	Evolution of structural inhomogeneity in polyacrylonitrile fibers by oxidative stabilization. *Carbon*, **2020**, 165, 225-237	10.4	21
36	Pyroprotein-Derived Hard Carbon Fibers Exhibiting Exceptionally High Plateau Capacities for Sodium Ion Batteries. *ACS Applied Energy Materials*, **2019**, 2, 1185-1191	6.1	20
35	Pyrolytic Carbon Nanosheets for Ultrafast and Ultrastable Sodium-Ion Storage. *Small*, **2018**, 14, e1703043	11	19
34	Effects of stabilization variables on mechanical properties of isotropic pitch based carbon fibers. *Journal of Industrial and Engineering Chemistry*, **2018**, 58, 349-356	6.3	19
33	Carbon Nanosheet from Polyethylene Thin Film as a Transparent Conducting Film: Upcycling of Waste to Organic Photovoltaics Application. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 12463-12470	8.3	18
32	Structural evolution of pitch fibers during low temperature carbonization. *Journal of Analytical and Applied Pyrolysis*, **2018**, 136, 153-159	6	18
31	Study on the stabilization of isotropic pitch based fibers. *Macromolecular Research*, **2015**, 23, 79-85	1.9	16
30	Selectivity Modulated by Surface Ligands on Cu2O/TiO2 Catalysts for Gas-Phase Photocatalytic Reduction of Carbon Dioxide. *Journal of Physical Chemistry C*, **2019**, 123, 29184-29191	3.8	14
29	Upcycling of lignin waste to activated carbon for supercapacitor electrode and organic adsorbent. *Korean Journal of Chemical Engineering*, **2019**, 36, 1543-1547	2.8	11
28	Effects of ultraviolet irradiation on stabilization of textile-grade polyacrylonitrile fibers without photo-initiator for preparing carbon fibers. *Carbon*, **2019**, 144, 440-448	10.4	10
27	Upcycling Plastic Waste into High Value-Added Carbonaceous Materials. *Macromolecular Rapid Communications*, **2021**, e2100467	4.8	9
26	Electrolyte-Dependent Sodium Ion Transport Behaviors in Hard Carbon Anode. *Small*, **2020**, 16, e2001053	11	8
25	Fe-based non-noble metal catalysts with dual active sites of nanosized metal carbide and single-atomic species for oxygen reduction reaction. *Journal of Materials Chemistry A*, **2020**, 8, 22379-22388	13	8

24	High-speed fabrication of thermoplastic carbon fiber fabric composites with a polymerizable, low-viscosity cyclic butylene terephthalate matrix for automotive applications. *Macromolecular Research*, **2014**, 22, 528-533	1.9	7
23	Effects of drawing process on the structure and tensile properties of textile-grade PAN fiber and its carbon fiber. *E-Polymers*, **2014**, 14, 217-224	2.7	7
22	Recycling of waste tires by synthesizing N-doped carbon-based catalysts for oxygen reduction reaction. *Applied Surface Science*, **2021**, 548, 149027	6.7	7
21	Amorphous MoSx embedded within edges of modified graphite as fast-charging anode material for rechargeable batteries. *Applied Surface Science*, **2020**, 509, 145352	6.7	6
20	Opto-thermal technique for measuring thermal conductivity of polyacrylonitrile based carbon fibers. *Journal of Industrial and Engineering Chemistry*, **2019**, 78, 137-142	6.3	6
19	Unusual Thermal Conductivity of Carbon Nanosheets with Self-Emerged Graphitic Carbon Dots. *ACS Applied Materials & Interfaces*, **2019**, 11, 13616-13623	9.5	5
18	Strategies for the production of PAN-Based carbon fibers with high tensile strength. *Carbon*, **2022**, 186, 644-677	10.4	5
17	Efficient upcycling of polypropylene-based waste disposable masks into hard carbons for anodes in sodium ion batteries. *Journal of Industrial and Engineering Chemistry*, **2021**, 105, 268-268	6.3	5
16	Investigation into the Gelation of Polyacrylonitrile Solution Induced by Dry-jet in Spinning Process and Its Effects on Diffusional Process in Coagulation and Structural Properties of Carbon Fibers. *Macromolecular Research*, **2018**, 26, 544-551	1.9	4
15	Micromesh carbon nanosheet electrodes fabricated by phase-separation of immiscible polymer blends. *Journal of Industrial and Engineering Chemistry*, **2018**, 64, 76-79	6.3	3
14	Highly durable platinum nanoparticles on carbon derived from pitch-based carbon fibers for oxygen reduction reaction. *Macromolecular Research*, **2017**, 25, 1158-1162	1.9	3
13	Eco-friendly cellulose-derived transparent carbon nanosheet electrodes. *Materials Research Bulletin* , **2020**, 132, 110999	5.1	3
12	Stable fast-charging electrodes derived from hierarchical porous carbon for lithium-ion batteries. *International Journal of Energy Research*, **2021**, 45, 4718-4726	4.5	3
11	Enhancing physical properties of mesophase pitch-based graphite fibers by modulating initial stabilization temperature. *Journal of Industrial and Engineering Chemistry*, **2021**, 94, 397-407	6.3	3
10	Silk Protein-Derived carbon fabric as an electrode with high Electro-Catalytic activity for All-Vanadium redox flow batteries. *Applied Surface Science*, **2021**, 567, 150810	6.7	3
9	Reinforced PEI/PVdF Multicore-Shell Structure Composite Membranes by Phase Prediction on a Ternary Solution. *Polymers*, **2018**, 10,	4.5	2
8	Transparent carbon nanosheet from polyethylene using E-beam pre-treatment. *Materials Letters*, **2019**, 236, 210-213	3.3	2
7	Polyacrylonitrile-based carbon nanofibers as a matrix for laser desorption/ionization time-of-flight mass spectrometric analysis of small molecules under both positive and negative ionization modes. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 1193-1202	4.4	2

6	Upcycling waste tires to affordable catalysts for the oxygen reduction reaction. *International Journal of Energy Research*,	4.5	1
5	Effect of Textile PAN-Based Carbon Fibers with Rough Surface on Interfacial Adhesion in PA6 Composites. *Industrial & Engineering Chemistry Research*, **2021**, 60, 9088-9097	3.9	1
4	High-capacity anode derived from graphene oxide with lithium-active functional groups. *International Journal of Energy Research*,	4.5	1
3	Microstructural evolution of polyacrylonitrile fibers during industry-mimicking continuous stabilization. *Carbon*, **2022**, 195, 165-173	10.4	1
2	Understanding an Exceptionally Fast and Stable Li-Ion Charging of Highly Fluorinated Graphene with Fine-Controlled C-F Configuration. *ACS Applied Materials & Interfaces*, **2021**, 13, 53767-53776	9.5	0
1	Direct surface functionalization of transparent carbon nanosheet electrodes for organic photovoltaics. *Materials Letters*, **2021**, 283, 128777	3.3	