

# Amit Kumar Naskar

## List of Publications by Year in descending order

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106  
papers

8,616  
citations

94269

37  
h-index

43802

91  
g-index

111  
all docs

111  
docs citations

111  
times ranked

10214  
citing authors

#	ARTICLE	IF	CITATIONS
1	Competitive adsorption within electrode slurries and impact on cell fabrication and performance. <i>Journal of Power Sources</i> , 2022, 520, 230914.	4.0	9
2	Enhanced thermoelectric performance of PbSe-graphene nanocomposite manufactured with acoustic cavitation induced defects. <i>Nano Energy</i> , 2022, 94, 106943.	8.2	11
3	An Engineered Multifunctional Composite for Passive Sensing, Power Harvesting, and In Situ Damage Identification with Enhanced Mechanical Performance. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	6
4	Multifunctional fiber-reinforced composites for passive sensing and energy harvesting with enhanced mechanical performance. , 2022, , .		0
5	Atoms to fibers: Identifying novel processing methods in the synthesis of pitch-based carbon fibers. <i>Science Advances</i> , 2022, 8, eabn1905.	4.7	12
6	Understanding the Solution Dynamics and Binding of a PVDF Binder with Silicon, Graphite, and NMC Materials and the Influence on Cycling Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 23322-23331.	4.0	6
7	A Flexible, Redox-Active, Aqueous Electrolyte-Based Asymmetric Supercapacitor with High Energy Density Based on Keratin-Derived Renewable Carbon. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	13
8	Ionic-liquid-Assisted Fabrication of Lignocellulosic Thin Films with Tunable Hydrophobicity. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 8835-8845.	3.2	3
9	4D Printing of Stretchable Supercapacitors via Hybrid Composite Materials. <i>Advanced Materials Technologies</i> , 2021, 6, .	3.0	30
10	Enhancing functionalities in carbon fiber composites by titanium dioxide nanoparticles. <i>Composites Science and Technology</i> , 2021, 201, 108491.	3.8	30
11	Synthesis of High-Performance Lignin-Based Inverse Thermoplastic Vulcanizates with Tailored Morphology and Properties. <i>ACS Applied Polymer Materials</i> , 2021, 3, 2911-2920.	2.0	10
12	Analyzing carbon fiber structures observed by helium ion microscopy and their mechanical properties. <i>Carbon Trends</i> , 2021, 4, 100055.	1.4	7
13	Method To Synthesize Micronized Spherical Carbon Particles from Lignin. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 9-17.	1.8	6
14	Effects of graphene surface functionalities towards controlled reinforcement of a lignin based renewable thermoplastic rubber. <i>Composites Science and Technology</i> , 2020, 199, 108352.	3.8	10
15	Keratin-derived functional carbon with superior charge storage and transport for high-performance supercapacitors. <i>Carbon</i> , 2020, 168, 419-438.	5.4	103
16	Tunable Electromechanical Liquid Crystal Elastomer Actuators. <i>Advanced Intelligent Systems</i> , 2020, 2, 2070071.	3.3	1
17	Interfacial Jamming: A Cast Net Thrown onto an Interface: Wrapping 3D Objects with an Interfacially Jammed Amphiphilic Sheet (Adv. Mater. Interfaces 7/2020). <i>Advanced Materials Interfaces</i> , 2020, 7, 2070039.	1.9	0
18	Tunable Electromechanical Liquid Crystal Elastomer Actuators. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000022.	3.3	27

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19	Effect of the Ionic Liquid Structure on the Melt Processability of Polyacrylonitrile Fibers. ACS Applied Materials & Interfaces, 2020, 12, 8663-8673.	4.0	9
20	A Cast Net Thrown onto an Interface: Wrapping 3D Objects with an Interfacially Jammed Amphiphilic Sheet. Advanced Materials Interfaces, 2020, 7, 1901751.	1.9	1
21	Fractionation of Lignin for Selective Shape Memory Effects at Elevated Temperatures. Materials, 2020, 13, 1940.	1.3	3
22	A fundamental understanding of whole biomass dissolution in ionic liquid for regeneration of fiber by solution-spinning. Green Chemistry, 2019, 21, 4354-4367.	4.6	22
23	Magnetic adsorbents for selective removal of selenite from contaminated water. Separation Science and Technology, 2019, 54, 2138-2146.	1.3	10
24	An Ionomeric Renewable Thermoplastic from Lignin-Reinforced Rubber. Macromolecular Rapid Communications, 2019, 40, e1900059.	2.0	10
25	Carbon polyaniline capacitive deionization electrodes with stable cycle life. Desalination, 2019, 464, 25-32.	4.0	32
26	Butanol-Based Organosolv Lignin and Reactive Modification of Poly(ethylene-glycidyl methacrylate). Industrial & Engineering Chemistry Research, 2019, 58, 20300-20308.	1.8	8
27	A tough and sustainable fiber-forming material from lignin and waste poly(ethylene terephthalate). RSC Advances, 2019, 9, 31202-31211.	1.7	8
28	Responsive lignin for shape memory applications. Polymer, 2019, 160, 210-222.	1.8	16
29	Data of thermally active lignin-linkages and shape memory of lignin-rubber composites. Data in Brief, 2019, 22, 392-399.	0.5	1
30	Enhanced piezoresistive sensing of fiber-reinforced composites via embedded nanoparticles. , 2019, , .		0
31	An Acrylonitrile-Butadiene-Lignin Renewable Skin with Programmable and Switchable Electrical Conductivity for Stress/Strain-Sensing Applications. Macromolecules, 2018, 51, 115-127.	2.2	38
32	Emulsion polymerization of acrylonitrile in aqueous methanol. Green Chemistry, 2018, 20, 5299-5310.	4.6	8
33	Conversion of Waste Tire Rubber into High-Value-Added Carbon Supports for Electrocatalysis. Journal of the Electrochemical Society, 2018, 165, H881-H888.	1.3	16
34	A path for lignin valorization via additive manufacturing of high-performance sustainable composites with enhanced 3D printability. Science Advances, 2018, 4, eaat4967.	4.7	131
35	Rigid Oligomer from Lignin in Designing of Tough, Self-Healing Elastomers. ACS Macro Letters, 2018, 7, 1328-1332.	2.3	54
36	Sustainable Waste Tire Derived Carbon Material as a Potential Anode for Lithium-Ion Batteries. Sustainability, 2018, 10, 2840.	1.6	26

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37	Recycling Waste Polyester via Modification with a Renewable Fatty Acid for Enhanced Processability. ACS Omega, 2018, 3, 10709-10715.	1.6	12
38	Amending the Structure of Renewable Carbon from Biorefinery Waste-Streams for Energy Storage Applications. Scientific Reports, 2018, 8, 8355.	1.6	10
39	Carbon/tin oxide composite electrodes for improved lithium-ion batteries. Journal of Applied Electrochemistry, 2018, 48, 811-817.	1.5	13
40	A Solvent-Free Synthesis of Lignin-Derived Renewable Carbon with Tunable Porosity for Supercapacitor Electrodes. ChemSusChem, 2018, 11, 2953-2959.	3.6	32
41	Roll-to-Roll Processing of Silicon Carbide Nanoparticle-Deposited Carbon Fiber for Multifunctional Composites. ACS Applied Materials & Interfaces, 2018, 10, 26576-26585.	4.0	15
42	A general method to improve 3D-printability and inter-layer adhesion in lignin-based composites. Applied Materials Today, 2018, 12, 138-152.	2.3	145
43	Tire-derived carbon for catalytic preparation of biofuels from feedstocks containing free fatty acids. Carbon Resources Conversion, 2018, 1, 165-173.	3.2	38
44	Mechanical, thermal, morphological, and rheological characteristics of high performance 3D-printing lignin-based composites for additive manufacturing applications. Data in Brief, 2018, 19, 936-950.	0.5	21
45	The effect of nanoparticle enhanced sizing on the structural health monitoring sensitivity and mechanical properties of carbon fiber composites. , 2018, , .		0
46	Improving mechanical properties of carbon nanotube fibers through simultaneous solid-state cycloaddition and crosslinking. Nanotechnology, 2017, 28, 145603.	1.3	25
47	Sustainable Potassium-Ion Battery Anodes Derived from Waste-Tire Rubber. Journal of the Electrochemical Society, 2017, 164, A1234-A1238.	1.3	88
48	Development of nanoparticle embedded sizing for enhanced structural health monitoring of carbon fiber composites. Proceedings of SPIE, 2017, , .	0.8	2
49	Temperature-dependent self-assembly and rheological behavior of a thermoreversible pmma-P<i>n</i>/BA-PMMA triblock copolymer gel. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 877-887.	2.4	14
50	Controlled Assembly of Lignocellulosic Biomass Components and Properties of Reformed Materials. ACS Sustainable Chemistry and Engineering, 2017, 5, 8044-8052.	3.2	22
51	Polyacrylonitrile nanocomposite fibers from acrylonitrile-grafted carbon nanofibers. Composites Part B: Engineering, 2017, 130, 64-69.	5.9	16
52	Neutron vibrational spectroscopic studies of novel tire-derived carbon materials. Physical Chemistry Chemical Physics, 2017, 19, 22256-22262.	1.3	8
53	Novel Acid Catalysts from Waste-Tire-Derived Carbon: Application in Waste-to-Biofuel Conversion. ChemistrySelect, 2017, 2, 4975-4982.	0.7	17
54	Sustainable Energy-Storage Materials from Lignin-Graphene Nanocomposite-Derived Porous Carbon Film. Energy Technology, 2017, 5, 1927-1935.	1.8	29

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55	Polymer matrix nanocomposites for automotive structural components. <i>Nature Nanotechnology</i> , 2016, 11, 1026-1030.	15.6	214
56	Tire-derived carbon composite anodes for sodium-ion batteries. <i>Journal of Power Sources</i> , 2016, 316, 232-238.	4.0	85
57	Effect of solvent/polymer infiltration and irradiation on microstructure and tensile properties of carbon nanotube yarns. <i>Journal of Materials Science</i> , 2016, 51, 10215-10228.	1.7	11
58	An approach towards tailoring interfacial structures and properties of multiphase renewable thermoplastics from lignin- <i>nitrile rubber</i> . <i>Green Chemistry</i> , 2016, 18, 5423-5437.	4.6	38
59	A New Class of Renewable Thermoplastics with Extraordinary Performance from Nanostructured Lignin- <i>Elastomers</i> . <i>Advanced Functional Materials</i> , 2016, 26, 2677-2685.	7.8	87
60	A study of poplar organosolv lignin after melt rheology treatment as carbon fiber precursors. <i>Green Chemistry</i> , 2016, 18, 5015-5024.	4.6	85
61	Recyclable Polymers: A New Class of Renewable Thermoplastics with Extraordinary Performance from Nanostructured Lignin- <i>Elastomers</i> ( <i>Adv. Funct. Mater.</i> 16/2016). <i>Advanced Functional Materials</i> , 2016, 26, 2676-2676.	7.8	0
62	Understanding the Impact of Poly(ethylene oxide) on the Assembly of Lignin in Solution toward Improved Carbon Fiber Production. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 3200-3207.	4.0	46
63	High performance carbon fibers from very high molecular weight polyacrylonitrile precursors. <i>Carbon</i> , 2016, 101, 245-252.	5.4	96
64	Waste Tire Derived Carbon- <i>Polymer Composite Paper as Pseudocapacitive Electrode with Long Cycle Life</i> . <i>ChemSusChem</i> , 2015, 8, 3576-3581.	3.6	94
65	The impact of lignin source on its self-assembly in solution. <i>RSC Advances</i> , 2015, 5, 67258-67266.	1.7	42
66	Poly(ethylene oxide)-Assisted Macromolecular Self-Assembly of Lignin in ABS Matrix for Sustainable Composite Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 3070-3076.	3.2	43
67	Designing the Structure of Carbon Fibers for Optimal Mechanical Properties. <i>ACS Symposium Series</i> , 2014, , 215-232.	0.5	4
68	Soft-Templated Mesoporous Carbons: Chemistry and Structural Characteristics. <i>ACS Symposium Series</i> , 2014, , 61-83.	0.5	10
69	Lignin Valorization: Improving Lignin Processing in the Biorefinery. <i>Science</i> , 2014, 344, 1246843.	6.0	2,994
70	Methanol Fractionation of Softwood Kraft Lignin: Impact on the Lignin Properties. <i>ChemSusChem</i> , 2014, 7, 221-228.	3.6	132
71	Highly oriented carbon fiber- <i>polymer composites via additive manufacturing</i> . <i>Composites Science and Technology</i> , 2014, 105, 144-150.	3.8	1,047
72	Studies on Supercapacitor Electrode Material from Activated Lignin-Derived Mesoporous Carbon. <i>Langmuir</i> , 2014, 30, 900-910.	1.6	342

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73	Tailored recovery of carbons from waste tires for enhanced performance as anodes in lithium-ion batteries. RSC Advances, 2014, 4, 38213.	1.7	70
74	Soft-templated mesoporous carbons as potential materials for oral drug delivery. Carbon, 2014, 71, 47-57.	5.4	82
75	Characterization and analysis of the molecular weight of lignin for biorefining studies. Biofuels, Bioproducts and Biorefining, 2014, 8, 836-856.	1.9	343
76	Controlled release of antipyrine from mesoporous carbons. Microporous and Mesoporous Materials, 2014, 196, 327-334.	2.2	28
77	Nanocellulose in polymer composites and biomedical applications. Tappi Journal, 2014, 13, 47-54.	0.2	41
78	Sustainable Mesoporous Carbons as Storage and Controlled-Delivery Media for Functional Molecules. ACS Applied Materials & Interfaces, 2013, 5, 5868-5874.	4.0	75
79	Pyrolysis Pathways of Sulfonated Polyethylene, an Alternative Carbon Fiber Precursor. Journal of the American Chemical Society, 2013, 135, 6130-6141.	6.6	60
80	Development of lignin-based polyurethane thermoplastics. RSC Advances, 2013, 3, 21832.	1.7	145
81	FUNCTIONALIZATION OF USED TIRE RUBBER BY HYDROSILYLATION. Rubber Chemistry and Technology, 2012, 85, 68-79.	0.6	8
82	Turning renewable resources into value-added polymer: development of lignin-based thermoplastic. Green Chemistry, 2012, 14, 3295.	4.6	341
83	Patterned Functional Carbon Fibers from Polyethylene. Advanced Materials, 2012, 24, 2386-2389.	11.1	78
84	Carbon Fibers: Patterned Functional Carbon Fibers from Polyethylene (Adv. Mater. 18/2012). Advanced Materials, 2012, 24, 2506-2506.	11.1	4
85	Synthesis, characterization and surface properties of poly(lactic acid)-perfluoropolyether block copolymers. Polymer International, 2011, 60, 507-516.	1.6	17
86	Terpolymers from lactide and bisphenol a derivatives: Scale-up, properties, and blends. Journal of Applied Polymer Science, 2011, 122, 2520-2528.	1.3	3
87	Observations on a low-angle X-ray diffraction peak for AR-HP mesophase pitch. Carbon, 2008, 46, 1166-1169.	5.4	11
88	Poly(l-lactic acid) with Segmented Perfluoropolyether Enchainment. Macromolecules, 2007, 40, 9354-9360.	2.2	40
89	Reactivity Differences between Carbon Nano Onions (CNOs) Prepared by Different Methods. Chemistry - an Asian Journal, 2007, 2, 625-633.	1.7	128
90	Thermal and shear flow effects on microstructure of a thermotropic liquid crystalline polymer. Polymer Engineering and Science, 2006, 46, 1215-1222.	1.5	4

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91	A photocrosslinkable melt processible acrylonitrile terpolymer as carbon fiber precursor. <i>Polymer</i> , 2006, 47, 4163-4171.	1.8	43
92	Carbon mats from melt spun polyacrylonitrile based precursors for automotive composites. <i>Plastics, Rubber and Composites</i> , 2006, 35, 242-246.	0.9	2
93	Consolidation of Reactive Ultem® Powder-coated Carbon Fiber Tow for Space Structure Composites by Resistive Heating. <i>Journal of Composite Materials</i> , 2006, 40, 1871-1883.	1.2	25
94	Effect of carbon nanofibers on the anisotropy of an aromatic thermotropic liquid crystalline polymer. <i>Polymer</i> , 2005, 46, 2663-2667.	1.8	17
95	UV assisted stabilization routes for carbon fiber precursors produced from melt-processible polyacrylonitrile terpolymer. <i>Carbon</i> , 2005, 43, 1065-1072.	5.4	57
96	Studies on tyre cords: degradation of polyester due to fatigue. <i>Polymer Degradation and Stability</i> , 2004, 83, 173-180.	2.7	35
97	Influence of Maleation of Ground Rubber Tyre (GRT) on the Thermorheological behaviour of Thermoplastic Elastomers Based on Ethylene Propylene Diene Rubber, GRT and Ethylene-co-acrylic acid. <i>Polymers and Polymer Composites</i> , 2002, 10, 427-432.	1.0	2
98	Thermoplastic elastomers from reclaimed rubber and waste plastics. <i>Journal of Applied Polymer Science</i> , 2002, 83, 2035-2042.	1.3	70
99	Thermoplastic elastomeric composition based on maleic anhydride-grafted ground rubber tire. <i>Journal of Applied Polymer Science</i> , 2002, 84, 370-378.	1.3	74
100	Melt-processable rubber: Chlorinated waste tire rubber-filled polyvinyl chloride. <i>Journal of Applied Polymer Science</i> , 2002, 84, 622-631.	1.3	40
101	Effect of chlorination of ground rubber tire on its compatibility with poly(vinyl chloride): Dielectric studies. <i>Journal of Applied Polymer Science</i> , 2002, 84, 993-1000.	1.3	21
102	Dielectric properties of blends of silicone rubber and tetraflouroethylene/propylene/vinylidene fluoride terpolymer. <i>Polymer</i> , 2001, 42, 9849-9853.	1.8	24
103	Thermoplastic elastomeric composition based on ground rubber tire. <i>Polymer Engineering and Science</i> , 2001, 41, 1087-1098.	1.5	104
104	Surface Chlorination of Ground Rubber Tire and its Characterization. <i>Rubber Chemistry and Technology</i> , 2001, 74, 645-661.	0.6	24
105	Characterization of Ground Rubber Tire and its Effect on Natural Rubber Compound. <i>Rubber Chemistry and Technology</i> , 2000, 73, 902-911.	0.6	42
106	Tailoring compatibilization potential of maleic anhydride-grafted polypropylene by sequential rheochemical processing of polypropylene and polyamide 66 blends. <i>Polymer Engineering and Science</i> , 0, , .	1.5	1