

Sarat K Swain

List of Publications by Year in Descending Order

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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.

113
papers

1,875
citations

25
h-index

36
g-index

113
ext. papers

2,145
ext. citations

4
avg, IF

5.68
L-index

#	Paper	IF	Citations
113	Antimicrobial and barrier properties of polyacrylic acid/GO hybrid nanocomposites for packaging application. <i>Nano Structures Nano Objects</i> , 2021 , 26, 100747	5.6	8
112	Preparation, characterization and dielectric properties of GO based ZnO embedded mixed metal oxides ternary nanostructured composites. <i>Journal of Alloys and Compounds</i> , 2021 , 869, 159274	5.7	3
111	Change in Orientation of Polyacrylic Acid and Chitosan Networks by Imprintment of Gold Nanoparticles. <i>Polymer-Plastics Technology and Materials</i> , 2021 , 60, 182-194	1.5	0
110	Nano ZnO imprinted dextran hybrid poly (N-isopropylacrylamide)/poly ethylene glycol composite hydrogels for in vitro release of ciprofloxacin. <i>Materials Today Communications</i> , 2021 , 26, 101869	2.5	3
109	Polypropylene oxide/polyethylene oxide-cellulose hybrid nanocomposite hydrogels as drug delivery vehicle. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 49921	2.9	5
108	Soy protein based biocomposites as ideal packaging materials 2021 , 65-84		1
107	Nanoclay sandwiched reduced graphene oxide filled macroporous polyacrylamide-agar hybrid hydrogel as an adsorbent for dye decontamination. <i>Nano Structures Nano Objects</i> , 2020 , 23, 100507	5.6	15
106	Nano ZrO ₂ reinforced cellulose incorporated polyethylmethacrylate/polyvinyl alcohol composite films as semiconducting packaging materials. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 49284	2.9	3
105	Graphene quantum dot decorated magnetic graphene oxide filled polyvinyl alcohol hybrid hydrogel for removal of dye pollutants. <i>Journal of Molecular Liquids</i> , 2020 , 302, 112591	6	28
104	Rhodamine B associated Ag/r-GO nanocomposites as ultrasensitive fluorescent sensor for Hg ²⁺ . <i>Microchemical Journal</i> , 2020 , 154, 104577	4.8	8
103	Application of quercetin flavonoid based hybrid nanocomposites: A review. <i>Saudi Pharmaceutical Journal</i> , 2020 , 28, 1719-1732	4.4	20
102	Surfactant free green synthesis of GOSiMa hybrid nanocomposite for charge storage application. <i>Ceramics International</i> , 2020 , 46, 27184-27192	5.1	3
101	Highly orange fluorescence emission by water soluble gold nanoclusters for turn off sensing of Hg ²⁺ ion. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020 , 386, 112098	4.7	13
100	Nano-CaCO ₃ -embodied polyacrylicacid/dextran nanocomposites for packaging applications. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 48298	2.9	2
99	Reduced graphene oxide decorated superporous polyacrylamide based interpenetrating network hydrogel as dye adsorbent. <i>Materials Chemistry and Physics</i> , 2020 , 250, 123022	4.4	18
98	Carbohydrate-Based Nanohydrogels for Drug-Delivery Applications 2019 , 117-137		1
97	Nano silver imprinted graphene oxide as catalyst in reduction of 4-nitrophenol. <i>Journal of Physical Organic Chemistry</i> , 2019 , 32, e3971	2.1	3

96	Synthesis of soy protein/polyacrylamide nanocomposite hydrogels for delivery of ciprofloxacin drug. <i>Materials Chemistry and Physics</i> , 2019 , 234, 378-389	4.4	26
95	Dual Activities of Nano Silver Embedded Reduced Graphene Oxide Using Clove Leaf Extracts: Hg ²⁺ Sensing and Catalytic Degradation. <i>ChemistrySelect</i> , 2019 , 4, 2593-2602	1.8	11
94	Effect of layered graphene oxide on the structure and properties of bovine serum albumin grafted polyacrylonitrile hybrid bionanocomposites. <i>Polymer Composites</i> , 2019 , 40, 3989-4003	3	0
93	Nano silver embedded starch hybrid graphene oxide sandwiched poly(ethylmethacrylate) for packaging application. <i>Nano Structures Nano Objects</i> , 2019 , 18, 100300	5.6	21
92	Nanostructured gold dispersed polyethylmethacrylate/dextran hybrid composites for packaging applications. <i>Polymer-Plastics Technology and Materials</i> , 2019 , 58, 2019-2030	1.5	1
91	h-BN huddled starch reinforced polyethylhexylacrylatepolyvinyl alcohol thin films for packaging applications. <i>Polymer Composites</i> , 2019 , 40, 1810-1818	3	4
90	Chitosan-Based Nanobiocomposites for Wound-Healing Applications 2019 , 295-314		0
89	Nano Gold Hybrid Polyvinyl Alcohol Films for Sensing of Cu ²⁺ ions. <i>ChemistrySelect</i> , 2019 , 4, 9784-9793	1.8	8
88	Biobased Nanohydrogels for Controlled Drug Delivery. <i>Materials Horizons</i> , 2019 , 21-41	0.6	
87	Microscopic Analysis and Characterization of Natural Rubber Containing Carbon Fillers 2019 , 225-251		
86	Release of ciprofloxacin drugs by nano gold embedded cellulose grafted polyacrylamide hybrid nanocomposite hydrogels. <i>International Journal of Biological Macromolecules</i> , 2019 , 126, 765-775	7.9	24
85	Silver Nanoparticles Decorated Polyethylmethacrylate/Graphene Oxide Composite: As Packaging Material. <i>Polymer Composites</i> , 2019 , 40, E1199-E1207	3	7
84	Nanoclay decorated polyacrylic acid/starch hybrid nanocomposite thin films as packaging materials. <i>Polymer Composites</i> , 2019 , 40, 229-239	3	7
83	Three-Dimensional Rice Straw-Structured Magnetic Nanoclay-Decorated Tripolymeric Nanohydrogels as Superadsorbent of Dye Pollutants. <i>ACS Applied Nano Materials</i> , 2018 , 1, 1188-1203	5.6	24
82	Delamination of Mg-Al Layered Double Hydroxide on Starch: Change in Structural and Thermal Properties. <i>Polymer-Plastics Technology and Engineering</i> , 2018 , 57, 1585-1591		4
81	Designing of Epoxy Matrix by Chemically Modified Multiwalled Carbon Nanotubes. <i>Advances in Polymer Technology</i> , 2018 , 37, 176-184	1.9	14
80	Effect of graphene platelets on the thermal and conducting properties of poly(ethyl methacrylate). <i>Advances in Polymer Technology</i> , 2018 , 37, 1316-1322	1.9	5
79	Preparation and characterization of bionanocomposites based on soluble starch/nano CaCO ₃ . <i>Polymer Composites</i> , 2018 , 39, E82-E89	3	10

78	Carbon Nanomaterial Reinforced Epoxy Composites: A Review. <i>Polymer-Plastics Technology and Engineering</i> , 2018 , 57, 1-16		26
77	Biomedical applications of acrylic-based nanohydrogels. <i>Journal of Materials Science</i> , 2018 , 53, 2303-2325	4.3	12
76	Nanostructured chitosan composites for cancer therapy: A review. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2018 , 67, 879-888	3	1
75	The effect of reduced graphene oxide intercalated hybrid organoclay on the dielectric properties of polyvinylidene fluoride nanocomposite films. <i>Applied Clay Science</i> , 2018 , 162, 69-82	5.2	18
74	Chitosan-Based Bionanocomposite for Packaging Applications 2018 , 107-124		
73	Nano silver decorated polyacrylamide/dextran nanohydrogels hybrid composites for drug delivery applications. <i>Materials Science and Engineering C</i> , 2018 , 85, 130-141	8.3	57
72	Polymer-Based Bionanocomposites for Future Packaging Materials 2018 , 33-48		4
71	Sandwich-structured starch-grafted polyethylhexylacrylate/polyvinyl alcohol thin films. <i>Advances in Polymer Technology</i> , 2018 , 37, 3779-3791	1.9	2
70	Fabrication of acrylic modified coconut fiber reinforced polypropylene biocomposites: Study of mechanical, thermal, and erosion properties. <i>Polymer Composites</i> , 2017 , 38, 2852-2862	3	10
69	Nano silicon carbide embodied soy protein bionanocomposites. <i>Polymer Composites</i> , 2017 , 38, E57-E65	3	6
68	Nano silver imprinted polyvinyl alcohol nanocomposite thin films for Hg ²⁺ sensor. <i>Sensors and Actuators B: Chemical</i> , 2017 , 246, 96-107	8.5	38
67	Synthesis of Soy Protein Based Biocomposites for Packaging Applications. <i>Green Energy and Technology</i> , 2017 , 143-166	0.6	1
66	Nano gold decorated reduced graphene oxide wrapped polymethylmethacrylate for supercapacitor applications. <i>RSC Advances</i> , 2017 , 7, 2137-2150	3.7	37
65	Cellulose-Based Nanohydrogels for Tissue Engineering Applications 2017 , 67-90		
64	Antimicrobial Properties of Nanogold-Imprinted Starch Bionanocomposites. <i>Polymer-Plastics Technology and Engineering</i> , 2017 , 56, 334-345		3
63	Nanocellulose as a template for the production of advanced nanostructured material 2017 , 427-454		3
62	Carbon quantum dot tailored calcium alginate hydrogel for pH responsive controlled delivery of vancomycin. <i>European Journal of Pharmaceutical Sciences</i> , 2017 , 109, 359-371	5.1	51
61	Design of carbon nanofiber embedded conducting epoxy resin. <i>Materials Chemistry and Physics</i> , 2017 , 186, 29-35	4.4	8

60	Structural and mechanical properties of functionalized carbon nanofiber/epoxy nanocomposites. <i>Materials Today: Proceedings</i> , 2017 , 4, 9060-9064	1.4	2
59	Phenylboronic acid functionalized reduced graphene oxide based fluorescence nano sensor for glucose sensing. <i>Materials Science and Engineering C</i> , 2016 , 58, 103-9	8.3	58
58	Graphite-reinforced oxygen barrier conducting starch bionanocomposites. <i>Polymer Composites</i> , 2016 , 37, 2083-2091	3	6
57	Nano CaCO ₃ imprinted starch hybrid polyethylhexylacrylate/polyvinylalcohol nanocomposite thin films. <i>Carbohydrate Polymers</i> , 2016 , 139, 90-8	10.3	21
56	Anticorrosion Performance of Three-Dimensional Hierarchical PANI@BN Nanohybrids. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 2921-2931	3.9	70
55	Oxygen Permeability of Layer Silicate Reinforced Polymer Nanocomposites. <i>Engineering Materials</i> , 2016 , 141-166	0.4	
54	Barrier properties of nano silicon carbide designed chitosan nanocomposites. <i>Carbohydrate Polymers</i> , 2015 , 134, 60-5	10.3	27
53	Manufacturing of Chemically Modified Date Palm Leaf Fibre-Reinforced Polymer Composites 2015 , 291-308		
52	Enhancement of thermal properties of polyacrylonitrile by reinforcement of Mg-Al layered double hydroxide. <i>Polymer Composites</i> , 2015 , 36, 2140-2144	3	8
51	Expanded graphite as a filler for epoxy matrix composites to improve their thermal, mechanical and electrical properties. <i>New Carbon Materials</i> , 2015 , 30, 432-437	4.4	39
50	Effect of zirconium oxide nanopowder on the thermal, chemical and gas barrier properties of starch. <i>Materials Science in Semiconductor Processing</i> , 2014 , 23, 115-121	4.3	16
49	Thermal and Oxygen Barrier Properties of Chitosan Bionanocomposites by Reinforcement of Calcium Carbonate Nanopowder. <i>Journal of Materials Science and Technology</i> , 2014 , 30, 791-795	9.1	26
48	Preparation of Starch/PVA/CaCO ₃ Nanobiocomposite Films: Study of Fire Retardant, Thermal Resistant, Gas Barrier and Biodegradable Properties. <i>Polymer-Plastics Technology and Engineering</i> , 2014 , 53, 1664-1670		22
47	Effects of boron nitride nanopowder on thermal, chemical and gas barrier properties of starch. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2014 , 32, 1311-1318	3.5	11
46	Effect of chemically modified date palm leaf fiber on mechanical, thermal and rheological properties of polyvinylpyrrolidone. <i>Fibers and Polymers</i> , 2014 , 15, 1062-1070	2	27
45	Influence of functionalized single-walled carbon nanotubes on morphology, conducting and oxygen barrier properties of poly (acrylonitrile-co-starch). <i>Composites Part B: Engineering</i> , 2014 , 62, 236-241	10	20
44	Characterization of Polyacrylonitrile Nanocomposites by Reinforcement of Functionalized Single-Walled Carbon Nanotubes. <i>Polymer-Plastics Technology and Engineering</i> , 2014 , 53, 784-789		1
43	Study of thermal, oxygen-barrier, fire-retardant and biodegradable properties of starch bionanocomposites. <i>Polymer Composites</i> , 2014 , 35, 1238-1243	3	17

42	Preparation of thermal resistant gas barrier chitosan nanobiocomposites. <i>Polymer Composites</i> , 2014 , 35, 2324-2328	3	12
41	Dispersion of nanoplatelets of graphite on PMMA matrix by in situ polymerisation technique. <i>Journal of Experimental Nanoscience</i> , 2014 , 9, 240-248	1.9	6
40	Dispersion of SiC nanoparticles in cellulose for study of tensile, thermal and oxygen barrier properties. <i>Carbohydrate Polymers</i> , 2014 , 99, 306-10	10.3	20
39	Effective mechanical properties of polyvinylalcohol biocomposites with reinforcement of date palm leaf fibers. <i>Polymer Composites</i> , 2013 , 34, 959-966	3	27
38	Cellulose nanobiocomposites with reinforcement of boron nitride: study of thermal, oxygen barrier and chemical resistant properties. <i>Carbohydrate Polymers</i> , 2013 , 95, 728-32	10.3	39
37	Dispersion of ZrO ₂ nanoparticles in polyacrylonitrile: Preparation of thermally-resistant electrically-conductive oxygen barrier nanocomposites. <i>Materials Science in Semiconductor Processing</i> , 2013 , 16, 2039-2043	4.3	9
36	Dispersion of multiwalled carbon nanotubes in polyacrylonitrile-co-starch copolymer matrix for enhancement of electrical, thermal, and gas barrier properties. <i>Polymer Composites</i> , 2013 , 34, 330-334	3	20
35	Effect of SiC Nanoparticles on Thermal and Oxygen Barrier Properties of Albumin Bovine Protein. <i>Polymer-Plastics Technology and Engineering</i> , 2013 , 52, 940-945		2
34	Synthesis of thermal and chemical resistant oxygen barrier starch with reinforcement of nano silicon carbide. <i>Carbohydrate Polymers</i> , 2013 , 97, 758-63	10.3	30
33	Effect of nanoboron nitride on the physical and chemical properties of soy protein. <i>Composites Science and Technology</i> , 2013 , 84, 39-43	8.6	37
32	Synthesis and characterization of poly(acrylonitrile-co-methylmethacrylate) nanocomposites reinforced by functionalized multiwalled carbon nanotubes. <i>Iranian Polymer Journal (English Edition)</i> , 2013 , 22, 369-376	2.3	14
31	Synthesis of gas barrier starch by dispersion of functionalized multiwalled carbon nanotubes. <i>Carbohydrate Polymers</i> , 2013 , 94, 663-8	10.3	47
30	Conductive, Gas Barrier, and Thermal Resistant Behavior of Poly (methyl methacrylate) Composite by Dispersion of ZrO ₂ Nanoparticles. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2013 , 62, 733-736	3	12
29	Poly(acrylamide-co-vinyl alcohol) Superabsorbent materials reinforced by modified clay. <i>Polymer Composites</i> , 2013 , 34, 1794-1800	3	18
28	Oxygen Barrier of Multiwalled Carbon Nanotube/Polymethyl Methacrylate Nanocomposites Prepared by in situ Method. <i>Journal of Materials Science and Technology</i> , 2012 , 28, 391-395	9.1	18
27	Effect of nanoclay on morphological, thermal, and barrier properties of albumin bovine. <i>Polymer Composites</i> , 2012 , 33, 2201-2206	3	29
26	Dispersion of expanded graphite as nanoplatelets in a copolymer matrix and its effect on thermal stability, electrical conductivity and permeability. <i>New Carbon Materials</i> , 2012 , 27, 271-277	4.4	11
25	Soy Protein/Clay Bionanocomposites as Ideal Packaging Materials. <i>Polymer-Plastics Technology and Engineering</i> , 2012 , 51, 1282-1287		45

24	Study of oxygen permeability and flame retardancy properties of biodegradable polymethylmethacrylate/starch composites. <i>Polymer Composites</i> , 2012 , 33, 79-84	3	19
23	Effect of organoclays on the thermal, mechanical, and oxygen barrier properties of poly(methylmethacrylate-co-acrylonitrile)/clay nanocomposites. <i>Polymer Composites</i> , 2012 , 33, 796-802	3	14
22	Electrical conductivity and oxygen permeability of polyacrylonitrile/multiwalled carbon nanotubes composites. <i>Polymer Composites</i> , 2012 , 33, 1114-1119	3	17
21	Ultrasound assisted synthesis of PMMA/clay nanocomposites: Study of oxygen permeation and flame retardant properties. <i>Bulletin of Materials Science</i> , 2012 , 35, 27-32	1.7	21
20	Poly(methyl methacrylate)/soy protein green composites as gas barrier materials. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2012 , 30, 397-404	3.5	12
19	Synthesis and Characterization of Chitosan/Boron Nitride Composites. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 2753-2757	3.8	47
18	Sonochemical Compatibility of Polyvinyl Alcohol/Polyacrylic Acid Blend in Aqueous Solution. <i>Journal of Macromolecular Science - Physics</i> , 2012 , 51, 580-589	1.4	6
17	Synthesis and characterization of conducting gas barrier polyacrylonitrile/graphite nanocomposites. <i>Polymer Composites</i> , 2011 , 32, 1336-1342	3	22
16	Swelling study of superabsorbent PAA-co-PAM/clay nanohydrogel. <i>Journal of Applied Polymer Science</i> , 2011 , 120, 1533-1538	2.9	22
15	Ultrasonic and Viscometric Study of Synthesized PAN/Clay Nanocomposites. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2011 , 60, 959-968	3	9
14	SYNTHESIS OF PAN/CLAY NANOCOMPOSITES: STUDY OF GAS PERMEATION PROPERTIES. <i>International Journal of Nanoscience</i> , 2011 , 10, 1101-1105	0.6	14
13	Ultrasound assisted process of PA6/clay nanocomposites: mechanical, rheological and barrier properties. <i>Journal of Polymer Engineering</i> , 2011 , 31,	1.4	6
12	PA6/clay nanocomposites by continuous sonication process. <i>Journal of Applied Polymer Science</i> , 2009 , 114, 2378-2387	2.9	60
11	Ultrasound aided extrusion process for preparation of polyolefin/clay nanocomposites. <i>Polymer Engineering and Science</i> , 2008 , 48, 1584-1591	2.3	35
10	Synthesis of poly(butyl acrylate)/sodium silicate nanocomposite fire retardant. <i>European Polymer Journal</i> , 2008 , 44, 3522-3528	5.2	33
9	Effect of ultrasound on HDPE/clay nanocomposites: Rheology, structure and properties. <i>Polymer</i> , 2007 , 48, 281-289	3.9	119
8	Characterization, Biodegradation, and Water Absorbency of Chemically Modified Tossa Variety Jute Fiber via Pulping and Grafting with Acrylamide. <i>International Journal of Polymer Analysis and Characterization</i> , 2005 , 10, 153-167	1.7	15
7	Characterization and properties of chemically modified <i>Corchorus capsularis</i> jute fiber via pulping and grafting: Infrared, thermogravimetric analysis, differential scanning calorimetry, scanning electron microscopy, X-ray diffraction, biodegradation, and superabsorbency. <i>Journal of Polymer Science Part A</i> , 2003 , 41, 2696-2703	2.5	12

6	Effect of Cu(II)/H ₂ Salen complex on the non-conventional initiated emulsion polymerization of acrylonitrile. <i>European Polymer Journal</i> , 2002 , 38, 345-350	5.2	8
5	Emulsifier-free emulsion polymerization of acrylonitrile: Effect of in situ developed Cu(II)/glycine chelate complex initiated by monopersulfate. <i>Journal of Applied Polymer Science</i> , 1999 , 74, 2785	2.9	7
4	Synthesis of zirconocene-acetylene and zirconocene-diacetylene polymer. <i>Journal of Polymer Science Part A</i> , 1999 , 37, 3899-3902	2.5	14
3	Emulsifier-free emulsion polymerization of acrylonitrile: Effect of in situ developed Cu(II)/glycine chelate complex initiated by monopersulfate. <i>Journal of Applied Polymer Science</i> , 1999 , 74, 2785-2790	2.9	15
2	Effect of polycaprolactone on physicochemical, biological, and mechanical properties of polyethylene oxide and polyamino acids nano block copolymers. <i>Journal of Applied Polymer Science</i> , 52116 ⁹	2.9	2
1	A materials science approach towards bioinspired polymeric nanocomposites: a comprehensive review. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 1-16	3	2