

# Sunil C. Joshi

## List of Publications by Year in descending order

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133  
papers

2,924  
citations

172457

29  
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197818

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135  
all docs

135  
docs citations

135  
times ranked

2700  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D printing in aerospace and its long-term sustainability. <i>Virtual and Physical Prototyping</i> , 2015, 10, 175-185.	10.4	398
2	Sol-Gel Behavior of Hydroxypropyl Methylcellulose (HPMC) in Ionic Media Including Drug Release. <i>Materials</i> , 2011, 4, 1861-1905.	2.9	162
3	Enhancing interlaminar fracture characteristics of woven CFRP prepreg composites through CNT dispersion. <i>Journal of Composite Materials</i> , 2012, 46, 665-675.	2.4	115
4	Mode I fracture toughness and fractographic investigation of carbon fibre composites with liquid Methylmethacrylate thermoplastic matrix. <i>Composites Part B: Engineering</i> , 2018, 134, 246-253.	12.0	94
5	Optimizing Polymer Infusion Process for Thin Ply Textile Composites with Novel Matrix System. <i>Materials</i> , 2017, 10, 293.	2.9	75
6	Low-velocity impact response of carbon fibre composites with novel liquid Methylmethacrylate thermoplastic matrix. <i>Composite Structures</i> , 2018, 203, 696-708.	5.8	72
7	A numerical approach to the modeling of polymer curing in fibre-reinforced composites. <i>Composites Science and Technology</i> , 1999, 59, 1003-1013.	7.8	70
8	Progressive failure analysis of 2D woven composites at the meso-micro scale. <i>Composite Structures</i> , 2017, 178, 395-405.	5.8	69
9	Enhanced vibration damping and dynamic mechanical characteristics of composites with novel pseudo-thermoset matrix system. <i>Composite Structures</i> , 2017, 179, 502-513.	5.8	68
10	Multiscale Polymer Composites: A Review of the Interlaminar Fracture Toughness Improvement. <i>Fibers</i> , 2017, 5, 38.	4.0	66
11	Review: Filament Winding and Automated Fiber Placement with In Situ Consolidation for Fiber Reinforced Thermoplastic Polymer Composites. <i>Polymers</i> , 2021, 13, 1951.	4.5	58
12	Effects of salts in the Hofmeister series and solvent isotopes on the gelation mechanisms for hydroxypropylmethylcellulose hydrogels. <i>Journal of Applied Polymer Science</i> , 2008, 109, 363-372.	2.6	53
13	Three-dimensional finite-element/nodal-control-volume simulation of the pultrusion process with temperature-dependent material properties including resin shrinkage. <i>Composites Science and Technology</i> , 2001, 61, 1539-1547.	7.8	52
14	Microwave thermal technique for energy and time efficient curing of carbon fiber reinforced polymer prepreg composites. <i>Journal of Composite Materials</i> , 2014, 48, 3035-3048.	2.4	52
15	Numerical simulation of the mould-filling process in resin-transfer moulding. <i>Composites Science and Technology</i> , 2000, 60, 845-855.	7.8	51
16	Curing optimization for pultruded composite sections. <i>Composites Science and Technology</i> , 2002, 62, 457-467.	7.8	49
17	Impact behavior and damage characteristics of hygrothermally conditioned carbon epoxy composite laminates. <i>Materials &amp; Design</i> , 2015, 65, 254-264.	5.1	49
18	Improved cure optimization in pultrusion with pre-heating and die-cooler temperature. <i>Composites Part A: Applied Science and Manufacturing</i> , 2003, 34, 1151-1159.	7.6	43

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19	A review of methods for improving interlaminar interfaces and fracture toughness of laminated composites. <i>Materials Today Communications</i> , 2020, 22, 100830.	1.9	43
20	Multi-scale simulation and finite-element-assisted computation of elastic properties of braided textile reinforced composites. <i>Journal of Composite Materials</i> , 2014, 48, 931-949.	2.4	41
21	Flexural characteristics of novel carbon methylmethacrylate composites. <i>Composites Communications</i> , 2019, 13, 129-133.	6.3	41
22	Damping, impact and flexural performance of novel carbon/Elum <sup>®</sup> thermoplastic tubular composites. <i>Composites Part B: Engineering</i> , 2020, 203, 108480.	12.0	41
23	Response of hygrothermally aged GLARE 4A laminates under static and cyclic loadings. <i>Materials and Design</i> , 2015, 87, 138-148.	7.0	40
24	Integrated approach for modelling cure and crystallization kinetics of different polymers in 3D pultrusion simulation. <i>Journal of Materials Processing Technology</i> , 2006, 174, 178-182.	6.3	38
25	Mass conservation in numerical simulation of resin flow. <i>Composites Part A: Applied Science and Manufacturing</i> , 2000, 31, 1061-1068.	7.6	36
26	Constituent materials micro-damage modeling in predicting progressive failure of braided fiber composites. <i>Composite Structures</i> , 2016, 145, 194-202.	5.8	34
27	Wall slip of concentrated suspension melts in capillary flows. <i>Powder Technology</i> , 2007, 177, 162-169.	4.2	33
28	Thermoreversible gelation of hydroxypropylmethylcellulose in simulated body fluids. <i>Carbohydrate Polymers</i> , 2008, 72, 133-143.	10.2	33
29	Simulation and Investigation of Factors Affecting High Aspect Ratio UV Embossing. <i>Langmuir</i> , 2005, 21, 2000-2007.	3.5	31
30	Power law fluids and Bingham plastics flow models for ceramic tape casting. <i>Journal of Materials Processing Technology</i> , 2002, 120, 215-225.	6.3	30
31	Experimental and Microscopic Investigation on Mechanical Performance of Textile Spread-tow Thin Ply Composites. <i>Fibers and Polymers</i> , 2019, 20, 1036-1045.	2.1	30
32	Thermal Control Schemes for a Micro-Satellite with All-Active and Selectively Active Solar String Designs. <i>Heat Transfer Engineering</i> , 2006, 27, 80-89.	1.9	29
33	Thermodynamic characteristics of gelation for methyl-cellulose hydrogels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2007, 87, 475-482.	3.6	28
34	High strain recovery with improved mechanical properties of gelatin-silica aerogel composites post-binding treatment. <i>Journal of Materials Science</i> , 2014, 49, 163-179.	3.7	28
35	Thermal conductivity variations with composition of gelatin-silica aerogel-sodium dodecyl sulfate with functionalized multi-walled carbon nanotube doping in their composites. <i>International Journal of Heat and Mass Transfer</i> , 2015, 87, 606-615.	4.8	28
36	Modeling heat and degree of gelation for methyl cellulose hydrogels with NaCl additives. <i>Journal of Applied Polymer Science</i> , 2006, 101, 1620-1629.	2.6	27

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37	Simultaneous optimization of die-heating and pull-speed in pultrusion of thermosetting composites. <i>Polymer Composites</i> , 2003, 24, 199-209.	4.6	26
38	Mechanical and vibration response of insulated hybrid composites. <i>Journal of Industrial Textiles</i> , 2018, 47, 1887-1907.	2.4	25
39	Thermal Conductivity Enhancement and Shape Stabilization of Phase-Change Materials Using Three-Dimensional Graphene and Graphene Powder. <i>Energy &amp; Fuels</i> , 2020, 34, 2435-2444.	5.1	25
40	Effect of shear heating during injection molding on the morphology of PC/LCP blends. <i>Acta Materialia</i> , 2003, 51, 6269-6276.	7.9	24
41	Effect of SDS on the gelation of hydroxypropylmethylcellulose hydrogels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2008, 93, 495-501.	3.6	22
42	Mechanical and Interfacial Properties Characterisation of Single Carbon Fibres for Composite Applications. <i>Experimental Mechanics</i> , 2015, 55, 1057-1065.	2.0	22
43	Optimizing functionally graded nickel-zirconia coating profiles for thermal stress relaxation. <i>Simulation Modelling Practice and Theory</i> , 2011, 19, 586-598.	3.8	21
44	Energy Characteristics and Failure Mechanisms for Textile Spread Tow Thin Ply Thermoplastic Composites under Low-velocity Impact. <i>Fibers and Polymers</i> , 2019, 20, 1716-1725.	2.1	21
45	Design, Manufacturing and Testing of Filament Wound Composite Risers for Marine and Offshore Applications. <i>Materials Science Forum</i> , 0, 813, 337-343.	0.3	20
46	Quasi-static indentation response of core-shell particle reinforced novel NCCF/Elium® composites at different feed rates. <i>Composites Communications</i> , 2020, 21, 100383.	6.3	19
47	The pultrusion process for polymer matrix composites. , 2012, , 381-413.		18
48	Impact Damage Resistance of CFRP Prepreg Laminates with Dispersed CSP Particles into Ply Interfaces. <i>International Journal of Damage Mechanics</i> , 2012, 21, 1106-1127.	4.2	18
49	Impact resistance of hygrothermally conditioned composite laminates with different lay-ups. <i>Journal of Composite Materials</i> , 2015, 49, 829-841.	2.4	18
50	Magnetic Loading of Soft Magnetic Material Selection Implications for Embedded Machines in More Electric Engines. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-6.	2.1	18
51	Effect of fixation stitches on out-of-plane response of textile non-crimp fabric composites. <i>Journal of Industrial Textiles</i> , 2019, 48, 1151-1166.	2.4	17
52	Damage evolution in glass/epoxy composites engineered using core-shell microparticles under impact loading. <i>Journal of Materials Science</i> , 2013, 48, 8354-8367.	3.7	16
53	Silica Aerogel Composites. <i>Engineering Materials</i> , 2016, , .	0.6	16
54	Recent Advances on the Design Automation for Performance-Optimized Fiber Reinforced Polymer Composite Components. <i>Journal of Composites Science</i> , 2020, 4, 61.	3.0	16

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55	Knowledge based data boosting exposition on CNT-engineered carbon composites for machine learning. <i>Advanced Composites and Hybrid Materials</i> , 2020, 3, 354-364.	21.1	15
56	Numerical analyses of peel demolding for UV embossing of high aspect ratio micro-patterning. <i>Microsystem Technologies</i> , 2009, 15, 581-593.	2.0	14
57	Adaptive centroid-finding algorithm for freeform surface measurements. <i>Applied Optics</i> , 2013, 52, D75.	1.8	14
58	Environmental durability of glass fiber epoxy composites filled with core-shell polymer particles. <i>Materials and Design</i> , 2016, 92, 866-879.	7.0	14
59	Effect of Granule Sizes on Acoustic Properties of Protein-Based Silica Aerogel Composites via Novel Inferential Transmission Loss Method. <i>Gels</i> , 2016, 2, 11.	4.5	13
60	Palliatives for Low Velocity Impact Damage in Composite Laminates. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-16.	1.8	13
61	Three-Dimensional FEM-NCV Modeling of Thermoplastic Composites Pultrusion. <i>Journal of Thermoplastic Composite Materials</i> , 2004, 17, 447-462.	4.2	12
62	Initiation of structural defects in carbon fiber reinforced polymer composites under hygrothermal environments. <i>Journal of Composite Materials</i> , 2016, 50, 1085-1097.	2.4	12
63	Effect of solvent state and isothermal conditions on gelation of methylcellulose hydrogels. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2008, 19, 1611-1623.	3.5	11
64	Time-Variant Simulation of Multi-Material Thermal Pultrusion. <i>Applied Composite Materials</i> , 2011, 18, 283-296.	2.5	11
65	Influence of surfactant properties on thermal behavior and sol-gel transitions in surfactant-HPMC mixtures. <i>Journal of Applied Polymer Science</i> , 2009, 113, 2887-2893.	2.6	10
66	A New Phenomenon of Compressive Strain Recovery in Gelatin-silica Aerogel Composites with SDS. <i>Procedia Engineering</i> , 2014, 75, 51-55.	1.2	10
67	Experimental investigation on suitability of carbon fibre thin plies for racquets. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2016, 230, 64-72.	0.7	10
68	Interfacial bonding between CFRP and mechanically-treated aluminum liner surfaces for risers. <i>Composite Structures</i> , 2018, 188, 374-386.	5.8	10
69	Influence of cure kinetic, rheological and thermo-mechanical behavior on micro-level curing strain of an epoxy prepreg. <i>Journal of Thermal Analysis and Calorimetry</i> , 2016, 124, 305-316.	3.6	9
70	Gelation of methylcellulose hydrogels under isothermal conditions. <i>Journal of Applied Polymer Science</i> , 2008, 107, 2101-2108.	2.6	8
71	Bio-fluid uptake and release of Indomethacin of direct-compressed HPMC tablets. <i>Carbohydrate Polymers</i> , 2009, 75, 282-286.	10.2	8
72	ELASTIC PROPERTIES OF CNT-ENGINEERED POLYMER COMPOSITES USING MULTI-LEVEL MECHANICS APPROACH. <i>Journal of Multiscale Modeling</i> , 2011, 03, 271-289.	1.1	8

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73	Simulation of bleeder flow and curing of thick composites with pressure and temperature dependent properties. Simulation Modelling Practice and Theory, 2013, 32, 64-82.	3.8	8
74	Viscosity corrections for concentrated suspension in capillary flow with wall slip. AICHE Journal, 2010, 56, 1447-1455.	3.6	7
75	Effects of Mechanical Surface Treatment on Bonding between Aluminum and Carbon/Epoxy Composites. Procedia Engineering, 2017, 184, 552-559.	1.2	7
76	Manufacturing Optimization and Experimental Investigation of Ex-situ Core-shell Particles Toughened Carbon/EliumA® Thermoplastic Composites. Fibers and Polymers, 2021, 22, 1693.	2.1	7
77	DEMOLDING OF HIGH ASPECT RATIO POLYMERIC MICRO-PATTERNING. International Journal of Nanoscience, 2005, 04, 543-549.	0.7	6
78	In-situ measurement and numerical simulation of resin pressure during Glass/Epoxy prepreg composite manufacturing. Measurement: Journal of the International Measurement Confederation, 2016, 94, 505-514.	5.0	6
79	Damage advancement behavior in braided composite structures for mini aerial vehicles. Mechanics of Advanced Materials and Structures, 2018, 25, 889-900.	2.6	6
80	Optimal segmented rotor design for the embedded electrical machine for the more electric aircraft. Journal of Engineering, 2019, 2019, 4321-4324.	1.1	6
81	Optimizing Bladder Resin Transfer Molding Process to Manufacture Complex, Thin-Ply Thermoplastic Tubular Composite Structures: An Experimental Case Study. Polymers, 2021, 13, 4093.	4.5	6
82	Tailoring of bonded composite scarf joint interface for impact damage mitigation and stiffness compatibility. Plastics, Rubber and Composites, 2016, 45, 43-49.	2.0	5
83	Process Development for Vacuum Brazed Niobium-316L Stainless Steel Transition Joints for Superconducting Cavities. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	2.2	5
84	Enhancement Studies on Manufacturing and Properties of Novel Silica Aerogel Composites. Gels, 2018, 4, 5.	4.5	5
85	Quasi-static indentation characteristics of sandwich composites with hybrid facesheets: Experimental and numerical approach. Journal of Sandwich Structures and Materials, 2022, 24, 294-320.	3.5	5
86	Simulation of Resin Film Infusion Process using Finite Element/Nodal Control Volume Approach. Advanced Composites Letters, 1999, 8, 096369359900800.	1.3	4
87	Modelling the Effects of Resin Shrinkage in Pultrusion of Composites Sections. Advanced Composites Letters, 2000, 9, 096369350000900.	1.3	4
88	Flow-compacted deformations coupled with thermo-chemically induced distortions in manufacturing of thick unidirectional carbon fiber reinforced plastics composites. Journal of Composite Materials, 2016, 50, 3325-3343.	2.4	4
89	Energy-based predictive criterion for LCP fibrillation in LCP/thermoplastic polymer blends under shear. Journal of Applied Polymer Science, 2003, 90, 3314-3324.	2.6	3
90	Factors governing in situ fibre formation in LCP/PC blends. Composites Part A: Applied Science and Manufacturing, 2004, 35, 1033-1038.	7.6	3

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91	Pragmatism in semi-steady modular finite-grid simulation methodology for aerospace composites manufacturing. Simulation Modelling Practice and Theory, 2009, 17, 839-849.	3.8	3
92	Swelling, Dissolution and Disintegration of HPMC in Aqueous Media. IFMBE Proceedings, 2009, , 1244-1247.	0.3	3
93	Data Analysis and Correlation for Thermal Balance Test on a Micro-Satellite Model. Heat Transfer Engineering, 2010, 31, 222-233.	1.9	3
94	Bleeder Thickness Optimization for Controlling Resin Content in Thick Laminated Composites. Advanced Materials Research, 0, 740, 698-703.	0.3	3
95	Fractography of Particle Strengthening Mechanisms at Interfaces in Prepreg Composites. Advanced Materials Research, 0, 816-817, 196-200.	0.3	3
96	Improved impact response of hygrothermally conditioned carbon/epoxy woven composites. Science and Engineering of Composite Materials, 2016, 23, 699-710.	1.4	3
97	Bimodulus-plastic model for pre-failure analysis of fiber reinforced polymer composites. Mechanics of Materials, 2019, 134, 18-29.	3.2	3
98	Development and evaluation of aerogel-filled BMI sandwich panels for thermal barrier applications. AIMS Materials Science, 2016, 3, 938-953.	1.4	3
99	Radiation properties modeling for plasma-sprayed-alumina-coated rough surfaces for spacecrafts. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 132, 209-214.	3.5	2
100	Modelling leading to water entrapment point in thermally driven hydrogelation of methyl cellulose. E-Polymers, 2008, 8, .	3.0	2
101	End pressure corrections in capillary rheometry of concentrated suspensions. Journal of Applied Polymer Science, 2009, 114, 1738-1745.	2.6	2
102	Energy Absorption Characteristics of Interface Modified GFRP Laminates under Low Velocity Impact. Advanced Materials Research, 2012, 626, 589-593.	0.3	2
103	Upper and lower bound buckling load of perfect and delaminated fiber-reinforced composite columns. Composite Structures, 2015, 122, 376-389.	5.8	2
104	Acoustic Performance of Silica Aerogel Composites. Engineering Materials, 2016, , 109-132.	0.6	2
105	Vibration damping and dynamic mechanical attributes of core-shell particles modified glass epoxy prepregs cured using microwave irradiations. Composites Communications, 2020, 21, 100412.	6.3	2
106	Boosting Inter-ply Fracture Toughness Data on Carbon Nanotube-Engineered Carbon Composites for Prognostics. Journal of Composites Science, 2020, 4, 170.	3.0	2
107	Manufacturing of multiscale interlaminar interface composites and quantitative analysis of interlaminar fracture toughness. , 2020, , 261-278.		2
108	Fabrication Methods. Engineering Materials, 2016, , 15-35.	0.6	2

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109	Fabrication and Thermal Performance of Aerogel-filled Carbon Composite Sandwich Structures. , 2010, , .		2
110	Development of reaction wheels housing for micro-satellites. Aircraft Engineering and Aerospace Technology, 2005, 77, 114-121.	0.8	1
111	Characterization of plasma-sprayed alumina as thermal control coating for micro-satellite applications. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2005, 219, 111-119.	1.1	1
112	Design and development of thermal test model of a micro-satellite for thermal balance test. Aircraft Engineering and Aerospace Technology, 2008, 80, 51-58.	0.8	1
113	Determination of pressure drop for concentrated suspension in a capillary flow. Polymer Composites, 2010, 31, 792-798.	4.6	1
114	Heat Transfer Efficiency of Aluminum Substrates With Embedded Semi-Active Thermal Control Device. Heat Transfer Engineering, 2013, 34, 985-993.	1.9	1
115	Experimental and numerical investigation of process-induced deformations of glass/epoxy wind turbine blade spar cap. Journal of Composite Materials, 2017, 51, 3791-3806.	2.4	1
116	Thermo-Mechanical Instability Characteristics of Laminated Composite Cylindrical Shells. Procedia Engineering, 2017, 214, 76-85.	1.2	1
117	Enhancement in Interply Toughness of BMI Composites Using Micro-Thin Films. Journal of Composites Science, 2021, 5, 49.	3.0	1
118	Superhydrophobic and Ultralow Thermal Insulation. Engineering Materials, 2016, , 81-108.	0.6	1
119	Cure Characterization Of TECHNOVIT 3040 For Micro Level Surface Replication. Materials Research Innovations, 2006, 10, 268-274.	2.3	0
120	Reducing loss of resin flowing in porous fibrous media in simulation of composites fabrication. Polymer Composites, 2010, 31, 226-235.	4.6	0
121	Outgassing studies on thermal control coatings for micro-satellites. Aircraft Engineering and Aerospace Technology, 2011, 83, 69-74.	0.8	0
122	Diffusion Characteristics of Moisture in Polymer Composites under Different Hygrothermal Conditions. Advanced Materials Research, 0, 849, 69-74.	0.3	0
123	Fibre Bragg grating sensors for in-situ measurement of resin pressure in curing composites. , 2015, , .		0
124	Effects of Nanoporosity on the Mechanical Properties and Applications of Aerogels in Composite Structures. , 2016, , 97-126.		0
125	Aerogels Today. Engineering Materials, 2016, , 5-14.	0.6	0
126	OPTIMAL LAYUP SCHEMES WITH SELECTIVE DISPERSION OF CORE/SHELL MICROPARTICLES IN PLY INTERFACES OF GLASS/EPOXY COMPOSITE LAMINATES FOR LOW VELOCITY IMPACT. Journal of Physics: Conference Series, 2019, 1355, 012042.	0.4	0



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127	Modeling fiber bridging and matrix strengthening effect in multiscale-woven composites. , 2020, , 69-89.		0
128	Interlaminar fracture morphology of multiscale interlaminar interface composites. , 2020, , 301-319.		0
129	Impact and Post-impact Analysis on Engineered Composites. Composites Science and Technology, 2021, , 87-106.	0.6	0
130	Heat Transfer Efficiency of Aluminium Substrates with Embedded Semi-active Thermal Control Device. , 2010, , .		0
131	Microstructural Analysis. Engineering Materials, 2016, , 37-50.	0.6	0
132	A New Phenomenonâ€”Brittle to Ductile Transition. Engineering Materials, 2016, , 51-80.	0.6	0
133	Tension-Compression Fatigue Induced Stress Concentrations in Woven Composite Laminate. Journal of Composites Science, 2021, 5, 297.	3.0	0