

# Jonathan S Colton

## List of Publications by Year in descending order

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69  
papers

2,126  
citations

516215

16  
h-index

233125

45  
g-index

69  
all docs

69  
docs citations

69  
times ranked

1898  
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of material microstructure in plate stiffness with relevance to microcantilever sensors. Journal of Micromechanics and Microengineering, 2005, 15, 1060-1067.	1.5	737
2	Microcantilevers: Sensing Chemical Interactions via Mechanical Motion. Chemical Reviews, 2008, 108, 522-542.	23.0	329
3	Nucleation of microcellular foam: Theory and practice. Polymer Engineering and Science, 1987, 27, 500-503.	1.5	312
4	Measuring the Compression of a Carbon Nanospring. Nano Letters, 2004, 4, 1009-1016.	4.5	71
5	Characterization of microcantilevers solely by frequency response acquisition. Journal of Micromechanics and Microengineering, 2005, 15, 785-791.	1.5	46
6	A Method for Calculating the Spring Constant of Atomic Force Microscopy Cantilevers with a Nonrectangular Cross Section. Analytical Chemistry, 2005, 77, 1192-1195.	3.2	43
7	Polymeric composites for use in electronic and microwave devices. Polymer Engineering and Science, 2004, 44, 588-597.	1.5	34
8	Injection moulding of high aspect ratio micron-scale thickness polymeric microcantilevers. Nanotechnology, 2004, 15, 1628-1632.	1.3	32
9	Production and characterization of polymer microcantilevers. Review of Scientific Instruments, 2004, 75, 2756-2758.	0.6	32
10	Exploring the environmental and economic impacts of wind energy: a cost-benefit perspective. International Journal of Sustainable Development and World Ecology, 2020, 27, 718-731.	3.2	28
11	Quantitative image processing analysis of composite materials. Polymer Composites, 1994, 15, 46-54.	2.3	23
12	Processing parameters for filament winding thick-section PEEK/carbon fiber composites. Polymer Composites, 1992, 13, 427-434.	2.3	20
13	Effects of ply angle and blocking on open-hole tensile strength of composite laminates: A design and certification perspective. Composites Part B: Engineering, 2021, 207, 108582.	5.9	20
14	A Techno-Economic Model for Wind Energy Costs Analysis for Low Wind Speed Areas. Processes, 2021, 9, 1463.	1.3	20
15	Fabrication and analysis of plastic hypodermic needles. Journal of Medical Engineering and Technology, 2005, 29, 181-186.	0.8	19
16	Effects of aging on epoxy-based rapid tooling materials. Rapid Prototyping Journal, 2002, 8, 215-223.	1.6	17
17	An integrated, intelligent design environment. Engineering With Computers, 1991, 7, 11-22.	3.5	16
18	Injection-moulded scanning force microscopy probes. Nanotechnology, 2005, 16, 1249-1252.	1.3	16

#	ARTICLE	IF	CITATIONS
19	On-line consolidation of thermoplastic towpreg composites in filament winding. <i>Polymer Composites</i> , 1994, 15, 436-441.	2.3	14
20	Draft angle and surface roughness effects on stereolithography molds. <i>Polymer Engineering and Science</i> , 2000, 40, 1581-1588.	1.5	14
21	A form verification system for the conceptual design of complex mechanical systems. <i>Engineering With Computers</i> , 1994, 10, 33-44.	3.5	13
22	Production and analysis of injection molded micro-optic components. <i>Polymer Engineering and Science</i> , 2004, 44, 564-579.	1.5	13
23	Using sensitivity analysis to improve the efficiency of a Net-Zero Energy vaccine warehouse design. <i>Building and Environment</i> , 2015, 87, 302-314.	3.0	13
24	Properties of rapid prototype injection mold tooling materials. <i>Polymer Engineering and Science</i> , 2003, 43, 125-138.	1.5	12
25	Acceptability and Utility of an Innovative Feeding Toolkit to Improve Maternal and Child Dietary Practices in Bihar, India. <i>Food and Nutrition Bulletin</i> , 2015, 36, 24-32.	0.5	12
26	Thermoforming of high performance thermoplastic composites. <i>Polymer Composites</i> , 1990, 11, 280-285.	2.3	11
27	Processing parameters for consolidating PEEK/carbon fiber (APC-2) composites. <i>Polymer Composites</i> , 1992, 13, 421-426.	2.3	11
28	Ejection force modeling for stereolithography injection molding tools. <i>Polymer Engineering and Science</i> , 2002, 42, 681-693.	1.5	11
29	Effects of Micronized Rubber Powders on Structure and Properties of Polypropylene Composites. <i>Waste and Biomass Valorization</i> , 2013, 4, 65-71.	1.8	11
30	Composites made from CF prepreg trim waste tapes using sheet molding compounds (SMC) technology: Challenges and potential. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 134, 105906.	3.8	11
31	Thermal effects on stereolithography injection mold inserts. <i>Polymer Engineering and Science</i> , 2000, 40, 1360-1368.	1.5	10
32	A process management strategy for re-design: An Anchoring Adjustment approach. <i>Journal of Engineering Design</i> , 2000, 11, 159-173.	1.1	10
33	Automation of Thermoplastic Composite Processing. <i>Journal of Composite Materials</i> , 1990, 24, 150-174.	1.2	9
34	Characterization of Plastic Hypodermic Needles. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2009, 3, .	0.4	9
35	A comparison of CFRP composite laminated joints fabricated with vacuum assisted resin transfer molding. <i>EXPRESS Polymer Letters</i> , 2018, 12, 781-789.	1.1	9
36	Resin transfer molding with powder-coated preforms. <i>Polymer Composites</i> , 1993, 14, 341-348.	2.3	8

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37	Flexible polymer composite electromagnetic crystals. <i>Polymer Engineering and Science</i> , 2003, 43, 822-830.	1.5	8
38	A design methodology for the economic design of vaccine warehouses in the developing world. <i>Building and Environment</i> , 2014, 82, 160-170.	3.0	8
39	The acceptability of dietary tools to improve maternal and child nutrition in Western Kenya. <i>Public Health Nutrition</i> , 2016, 19, 1823-1833.	1.1	8
40	Thermal analysis of thermoplastic composites during processing. <i>Polymer Composites</i> , 1995, 16, 198-203.	2.3	7
41	Efficient and participatory design of scale-appropriate agricultural machinery workshops in developing countries: A case study in Bangladesh. <i>Development Engineering</i> , 2020, 5, 100046.	1.4	7
42	Microstructure-based processing parameters of thermoplastic composite materials. Part I: Theoretical models. <i>Polymer Composites</i> , 1994, 15, 34-41.	2.3	6
43	EVALUATION OF EPOXY RESINS FOR USE IN HOT, WET ENVIRONMENTS. <i>Polymer-Plastics Technology and Engineering</i> , 2000, 39, 667-682.	1.9	6
44	Magnetic clamping structures for the consolidation of composite laminates. <i>Polymer Composites</i> , 2012, 33, 951-960.	2.3	6
45	A machine system for the rapid production of composite structures. <i>Polymer Composites</i> , 2000, 21, 124-133.	2.3	5
46	Material systems for rapid manufacture of composite structures. <i>Polymer Composites</i> , 2000, 21, 918-930.	2.3	4
47	Using Genetic Algorithms to Set Target Values for Engineering Characteristics in the House of Quality. <i>Journal of Computing and Information Science in Engineering</i> , 2002, 2, 106-114.	1.7	4
48	Fatigue of reinforced-polyurethane-based, sheet metal forming dies. <i>International Journal of Fatigue</i> , 2006, 28, 43-52.	2.8	4
49	A Simplified Irrigation Pump Testing Method for Developing Countries: A Case Study in Bangladesh. <i>Irrigation and Drainage</i> , 2018, 67, 559-571.	0.8	4
50	Effects of manufacturing parameters on performance of fluidic oscillators for aerodynamic flow control. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2019, 233, 3603-3611.	0.7	4
51	Microstructure-based processing parameters of thermoplastic composite materials. Part II: Experimental results. <i>Polymer Composites</i> , 1994, 15, 42-45.	2.3	3
52	Information frameworks for conceptual engineering design. <i>Engineering With Computers</i> , 1994, 10, 22-32.	3.5	3
53	Multi-Parameter Optimization of Efficiency, Capital Cost and Mass of Ferris Wheel Turbine for Low Wind Speed Regions. <i>Energies</i> , 2021, 14, 6217.	1.6	3
54	Processing of post-industrial unidirectional prepreg tapes using SMC equipment. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 121, 2831-2839.	1.5	3

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55	The complementary roles of expert systems and database management systems in a design for manufacture environment. <i>Engineering With Computers</i> , 1992, 8, 139-149.	3.5	2
56	Resin transfer molding of BMIs and polyimides. <i>Polymer Composites</i> , 1998, 19, 732-737.	2.3	2
57	Integrating Photovoltaic Technologies in Smart Homes. , 2018, , .		2
58	Surface-treated kaolin minerals as a complement or substitute to glass fibers in thermoplastics. <i>Polymer Engineering and Science</i> , 2019, 59, E330-E338.	1.5	2
59	Improved composite open-hole compression strength and trade-off with manufacturability controlled by stacking sequence effect and non-standard ply angles. <i>Composites Part B: Engineering</i> , 2022, 228, 109410.	5.9	2
60	Fiber coiling during bladder molding of thermoplastic composites. <i>Polymer Composites</i> , 1996, 17, 627-636.	2.3	1
61	An Anchoring Adjustment Process Model for Redesign. <i>Journal of Engineering Design</i> , 1998, 9, 297-314.	1.1	1
62	Serviceability Considerations for the Layout of Coiled Tubing Units. <i>Journal of Engineering Design</i> , 1999, 10, 259-275.	1.1	1
63	Oven melting encapsulization of hypodermic needles by syringes. <i>Journal of Medical Engineering and Technology</i> , 2009, 33, 616-621.	0.8	1
64	Design and cost analysis of integration of fluidic oscillator into a flap structure. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2018, 232, 2978-2988.	0.7	1
65	The design and manufacturing of fluidic oscillators for composite aircraft structures. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2019, 233, 1250-1259.	1.5	1
66	A compact open-hole compression test fixture for composite materials. <i>Composites Part B: Engineering</i> , 2021, 223, 109126.	5.9	1
67	Production of Metal Wire " Polymeric Foam Composites for Dielectric Applications. <i>Journal of Cellular Plastics</i> , 2009, 45, 461-478.	1.2	0
68	Composite Laminate Design for Improved Open-Hole Compression Strength using Non-Standard Ply Angles and Customized Stacking Sequences Characterized by [D] Matrix. <i>Materials Today Communications</i> , 2020, 24, 101172.	0.9	0
69	Design and testing of a prototype foot orthosis that uses the principle of granular jamming. <i>Prosthetics and Orthotics International</i> , 2021, Publish Ahead of Print, 240-245.	0.5	0