

Dinesh Kalyanasundaram

List of Publications by Year in descending order

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68
papers

1,048
citations

471061

17
h-index

500791

28
g-index

70
all docs

70
docs citations

70
times ranked

1167
citing authors

#	ARTICLE	IF	CITATIONS
1	Machining damage in FRPs: Laser versus conventional drilling. Composites Part A: Applied Science and Manufacturing, 2016, 82, 42-52.	3.8	86
2	Outcome and safety analysis of 3D-printed patient-specific pedicle screw jigs for complex spinal deformities: a comparative study. Spine Journal, 2019, 19, 56-64.	0.6	84
3	A Review on Biomechanics of Anterior Cruciate Ligament and Materials for Reconstruction. Applied Bionics and Biomechanics, 2018, 2018, 1-14.	0.5	75
4	Immunosensor towards low-cost, rapid diagnosis of tuberculosis. Lab on A Chip, 2012, 12, 1437.	3.1	56
5	Self-functionalized ultrastable water suspension of luminescent carbon quantum dots. Materials Chemistry and Physics, 2019, 225, 23-27.	2.0	41
6	An Affordable Insole-Sensor-Based Trans-Femoral Prosthesis for Normal Gait. Sensors, 2018, 18, 706.	2.1	36
7	Design and validation of a hybrid laser/water-jet machining system for brittle materials. Journal of Laser Applications, 2008, 20, 127-134.	0.8	29
8	Influence of various forms of polypropylene matrix (fiber, powder and film states) on the flexural strength of carbon-polypropylene composites. Composites Part B: Engineering, 2019, 166, 56-64.	5.9	28
9	Open hole fatigue testing of laser machined MD-CFRPs. Composites Part A: Applied Science and Manufacturing, 2018, 111, 33-41.	3.8	26
10	Fracture mechanics-based analysis for hybrid laser/waterjet (LWJ) machining of yttria-partially stabilized zirconia (Y-PSZ). International Journal of Machine Tools and Manufacture, 2010, 50, 97-105.	6.2	25
11	An exploration of frictional and vibrational behaviors of textured deep groove ball bearing in the vicinity of requisite minimum load. Friction, 2021, 9, 1749-1765.	3.4	25
12	Enhancement of open hole tensile strength via alignment of carbon nanotubes infused in glass fiber - epoxy - CNT multi-scale composites. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106155.	3.8	24
13	Laser machining of Kevlar fiber reinforced laminates – Effect of polyetherimide versus polypropylene matrix. Composites Science and Technology, 2016, 134, 267-274.	3.8	23
14	Improvement of Deep Groove Ball Bearing's Performance Using a Bionic Textured Inner Race. Journal of Bionic Engineering, 2021, 18, 974-990.	2.7	23
15	Tribodynamic studies of textured gearsets lubricated with fresh and MoS2 blended greases. Tribology International, 2022, 165, 107247.	3.0	22
16	Highly-sensitive detection of Salmonella typhi in clinical blood samples by magnetic nanoparticle-based enrichment and in-situ measurement of isothermal amplification of nucleic acids. PLoS ONE, 2018, 13, e0194817.	1.1	21
17	Surface deterioration and elemental composition of retrieved orthodontic miniscrews. American Journal of Orthodontics and Dentofacial Orthopedics, 2015, 147, S88-S100.	0.8	20
18	Box-Behnken technique based multi-parametric optimization of electrostatic spray coating in the manufacturing of thermoplastic composites. Materials and Manufacturing Processes, 2019, 34, 1638-1645.	2.7	20

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19	Permeability and effective slip in confined flows transverse to wall slippage patterns. <i>Physics of Fluids</i> , 2016, 28, .	1.6	18
20	Investigation, modelling and validation of material separation mechanism during fiber laser machining of medical grade titanium alloy Ti6Al4V and stainless steel SS316L. <i>Mechanics of Materials</i> , 2019, 137, 103125.	1.7	17
21	Optimization of laser parameters for improved corrosion resistance of nitinol. <i>Materials and Manufacturing Processes</i> , 2020, 35, 1661-1669.	2.7	17
22	Optimization of pressure-less microwave sintering of Ti6Al4V by response surface methodology. <i>Materials and Manufacturing Processes</i> , 2018, 33, 1835-1844.	2.7	16
23	Relationship between Dislocation Density and Antibacterial Activity of Cryo-Rolled and Cold-Rolled Copper. <i>Materials</i> , 2019, 12, 200.	1.3	16
24	Obtaining a Relationship Between Process Parameters and Fracture Characteristics for Hybrid CO2 Laser/Waterjet Machining of Ceramics. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2009, 131, .	0.8	15
25	Dry Electrostatic Spray Coated Towpregs for Thermoplastic Composites. <i>Fibers and Polymers</i> , 2018, 19, 364-374.	1.1	15
26	Oxidation facilitated antimicrobial ability of laser micro-textured titanium alloy against gram-positive <i>Staphylococcus aureus</i> for biomedical applications. <i>Journal of Laser Applications</i> , 2018, 30, .	0.8	15
27	Experimental assessment of biomechanical properties in human male elbow bone subjected to bending and compression loads. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2019, 17, 228080001879381.	0.7	15
28	Development and characterization of electric field directed preferentially aligned CNT nanocomposites. <i>Mechanics of Advanced Materials and Structures</i> , 2019, 26, 35-41.	1.5	14
29	Investigation of the mechanical performance of carbon/polypropylene 2D and 3D woven composites manufactured through multi-step impregnation processes. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 130, 105733.	3.8	14
30	An extended OpenSim knee model for analysis of strains of connective tissues. <i>BioMedical Engineering OnLine</i> , 2018, 17, 42.	1.3	13
31	Rapid Detection Device for Salmonella typhi in Milk, Juice, Water and Calf Serum. <i>Indian Journal of Microbiology</i> , 2018, 58, 381-392.	1.5	13
32	Hybrid CO2 Laser/Waterjet Machining of Polycrystalline Diamond Substrate: Material Separation Through Transformation Induced Controlled Fracture. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2014, 136, .	1.3	12
33	Tribological and Vibration Studies of Textured Spur Gear Pairs under Fully Flooded and Starved Lubrication Conditions. <i>Tribology Transactions</i> , 2020, 63, 1103-1120.	1.1	12
34	Electric field-induced concentration and capture of DNA onto microtips. <i>Microfluidics and Nanofluidics</i> , 2012, 13, 217-225.	1.0	11
35	A review of biomarkers in peri-miniscrew implant crevicular fluid (PMICF). <i>Progress in Orthodontics</i> , 2017, 18, 42.	1.3	11
36	Volumetric locking free 3D finite element for modelling of anisotropic visco-hyperelastic behaviour of anterior cruciate ligament. <i>Journal of Biomechanics</i> , 2018, 73, 1-8.	0.9	11

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37	Graphene Quantum Dots in the Game of Directing Polymer Self-Assembly to Exotic Kagome Lattice and Janus Nanostructures. ACS Nano, 2019, 13, 9397-9407.	7.3	11
38	Functionalized Co ₂ FeAl Nanoparticles for Detection of SARS CoV-2 Based on Reverse Transcriptase Loop-Mediated Isothermal Amplification. ACS Applied Nano Materials, 2021, 4, 5871-5882.	2.4	10
39	Electrodeposition of nanodiamond particles on aluminium alloy A319 for improved tribological properties. Micro and Nano Letters, 2008, 3, 110.	0.6	9
40	Microwave Sintering of Ti6Al4V: Optimization of Processing Parameters for Maximal Tensile Strength and Minimal Pore Size. Metals, 2018, 8, 1086.	1.0	8
41	Estimation of forces on anterior cruciate ligament in dynamic activities. Biomechanics and Modeling in Mechanobiology, 2021, 20, 1533-1546.	1.4	8
42	Rapid extraction and preservation of genomic DNA from human samples. Analytical and Bioanalytical Chemistry, 2013, 405, 1977-1983.	1.9	7
43	Simultaneous and high sensitive detection of Salmonella typhi and Salmonella paratyphi a in human clinical blood samples using an affordable and portable device. Biomedical Microdevices, 2019, 21, 95.	1.4	7
44	An open-source plugin for OpenSim® to model the non-linear behaviour of dense connective tissues of the human knee at variable strain rates. Computers in Biology and Medicine, 2019, 110, 186-195.	3.9	7
45	Controlled manipulation of CNTs in glass/epoxy composites with cut-outs using non-uniform electric field. Advanced Composite Materials, 2021, 30, 205-221.	1.0	7
46	Protein Patterning on Microtextured Polymeric Nanobrush Templates Obtained by Nanosecond Fiber Laser. Macromolecular Bioscience, 2022, 22, e2100454.	2.1	7
47	Epoxy based sandwich composite using three-dimensional integrally woven fabric as core strengthened with additional carbon face-sheets. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 116, 104317.	1.5	6
48	Application of chemical transformation induced fracture for cutting of superhard materials. Journal of Manufacturing Processes, 2012, 14, 336-342.	2.8	5
49	Nanotips for single-step preparation of DNA for qPCR analysis. Analyst, The, 2013, 138, 3135.	1.7	4
50	Thermo-physical modeling and experimental validation of core-shell nanoparticle fabrication of nickel-titanium (nitinol) alloy. Optics and Laser Technology, 2021, 138, 106880.	2.2	4
51	Sound4All: Towards affordable large-scale hearing screening. , 2017, , .		3
52	A cadaveric study on the rate of strain-dependent behavior of human anterior cruciate ligament. Acta of Bioengineering and Biomechanics, 2021, 23, .	0.2	3
53	Mitigation of notch sensitivity by controlled alignment of carbon nanotubes in epoxy using electric field application. Composites Part A: Applied Science and Manufacturing, 2021, 149, 106544.	3.8	3
54	Laser based micro texturing of freeform surfaces of implants using a Stewart platform. Precision Engineering, 2021, 72, 294-303.	1.8	3

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55	Design and development of 3D printing assisted microwave sintering of elbow implant with biomechanical properties similar to human elbow. Rapid Prototyping Journal, 2022, 28, 390-403.	1.6	3
56	Liquid Slippage in Confined Flows: Effect of Periodic Micropatterns of Arbitrary Pitch and Amplitude. Journal of Heat Transfer, 2018, 140, .	1.2	2
57	Cellular studies and sustained drug delivery via nanostructures fabricated on 3D printed porous Neovius lattices of Ti ₆ Al ₄ V ELI. Biomedical Materials (Bristol), 2022, 17, 045004.	1.7	2
58	Modified Surface Composition and Biocompatibility of Core-Shell Nitinol Nanoparticles Fabricated via Laser Ablation of Differently Passivized Targets. Frontiers in Materials, 2022, 9, .	1.2	2
59	Liquid Slippage in Confined Flows: Effect of Periodic Micropatterns of Arbitrary Pitch and Amplitude. , 2016, , .		1
60	Mechanical Properties of the Human Elbow Bones Measured by Nanoindentation and Microindentation. , 2018, , .		1
61	Numerical and Experimental Studies on the Development of Variable Density Nanocomposites for Structural Applications. , 2018, , .		1
62	Levels of TGF- β 1 in peri-miniscrew implant crevicular fluid. Journal of Oral Biology and Craniofacial Research, 2020, 10, 93-98.	0.8	1
63	An open-source OpenSim [®] ankle-foot musculoskeletal model for assessment of strains and forces in dense connective tissues. Computer Methods and Programs in Biomedicine, 2022, 224, 106994.	2.6	1
64	Authors' response. American Journal of Orthodontics and Dentofacial Orthopedics, 2015, 148, 362-363.	0.8	0
65	Confinement Effects on Effective Slip of Patterned Surfaces. , 2017, , .		0
66	Highly-sensitive detection of Salmonella typhi in human blood using a portable optical system for detection of nucleic acids amplification. , 2017, , .		0
67	Reduction of Hydraulic Friction in Confined Flows by Laser Texturing: Experiments and Theoretical Validation. , 2018, , .		0
68	A novel, minimally invasive implant to assist in repeated intraocular drug delivery. Biomedical Microdevices, 2022, 24, 17.	1.4	0