Ashok Kumar Pandey

List of Publications by Year
in descending order

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57	827	471371	526166
papers	citations	17 h-index	27 g-index

60	60	60	633
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modelling transient response using PAC 2002-based tyre model. Vehicle System Dynamics, 2022, 60, 20-46.	2.2	12
2	Influence of fabrication tolerances on performance characteristics of a MEMS gyroscope. Microsystem Technologies, 2021, 27, 2679-2693.	1.2	6
3	High speed silicon wet anisotropic etching for applications in bulk micromachining: a review. Micro and Nano Systems Letters, 2021, 9, .	1.7	29
4	Modeling of pinning phenomenon in Iwan model for bolted joint. Tribology International, 2021, 161, 107071.	3.0	15
5	Vibration Analysis of a Tire Under Static Loading Using Flexible Ring-Based Model. Journal of Vibration and Acoustics, Transactions of the ASME, 2021, 143, .	1.0	4
6	Comparative study of perforated microcantilevers for MEMS applications. , 2021, , .		0
7	Frequency tuning of weakly and strongly coupled micromechanical beams. ISSS Journal of Micro and Smart Systems, 2020, 9, 117-130.	1.0	3
8	High Speed Silicon Wet Bulk Micromachining of Si{111} in KOH Based Solution. , 2020, , .		1
9	Systematic study of the etching characteristics of Si{111} in modified TMAH. Micro and Nano Letters, 2020, 15, 52-57.	0.6	4
10	High speed etching of silicon in KOH + NH 2 OH solution at lower temperatures for the fabrication of through holes in silicon wafer. Micro and Nano Letters, 2020, 15, 365-369.	0.6	4
11	Experimental and Theoretical Analysis of Drag Forces in Micromechanical-Beam Arrays. Physical Review Applied, 2020, 13, .	1.5	6
12	Effect of concentration change of 0.1% triton added 25Âwt% TMAH during fabrication of deep cavities with mesa structures in SOI wafer. Microelectronic Engineering, 2020, 227, 111323.	1.1	3
13	Etching Mechanism Behind the High-Speed Etching of Silicon in NH₂OH-added Alkaline Solutions. IEEJ Transactions on Sensors and Micromachines, 2020, 140, 24-30.	0.0	9
14	Design and analysis of microcantilever beams based on arrow shape. Microsystem Technologies, 2019, 25, 4379-4390.	1.2	4
15	Frequency analysis of hexagonal microbeam with 2D nanofiber mat. Materials Research Express, 2019, 6, 085631.	0.8	1
16	Frequency analysis of carbon and silicon nanosheet with surface effects. Applied Mathematical Modelling, 2019, 76, 741-758.	2.2	5
17	Influence of scalloping on electrostatic forces in comb drive microdevices. ISSS Journal of Micro and Smart Systems, 2019, 8, 127-134.	1.0	2
18	Aging Effects of KOH+NH2OH Solution on the Etching Characteristics of Silicon. ECS Journal of Solid State Science and Technology, 2019, 8, P685-P692.	0.9	9

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19	Achieving wideband micromechanical system using coupled non-uniform beams array. Sensors and Actuators A: Physical, 2018, 273, 12-18.	2.0	19
20	Performance of non-uniform cantilever based piezoelectric energy harvester. ISSS Journal of Micro and Smart Systems, 2018, 7, 1-13.	1.0	11
21	An analysis of stepped trapezoidal-shaped microcantilever beams for MEMS-based devices. Journal of Micromechanics and Microengineering, 2018, 28, 075009.	1.5	12
22	Nonlinear Analysis of Shape Memory Devices With Duffing and Quadratic Oscillators. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	0.7	0
23	Microstructures with Protected Convex Corners in Modified KOH Solution Exhibiting High-Speed Silicon Etching. , 2018, , .		0
24	Determination of precise crystallographic directions on Si{111} wafers using self-aligning pre-etched pattern. Micro and Nano Systems Letters, 2018, 6, .	1.7	5
25	Arrow Shaped Microcantilever Beams for Enhancing Mass Sensitivity. , 2018, , .		1
26	An idea of oscillating alphabets through mechanical coupling. ISSS Journal of Micro and Smart Systems, 2018, 7, 145-150.	1.0	2
27	Elastic and fracture characteristics of graphene-silicon nanosheet composites using nonlinear finite element method. International Journal of Mechanical Sciences, 2018, 142-143, 491-501.	3.6	18
28	Influence of van der Waals forces on elastic and buckling characteristics of vertically aligned carbon nanotubes. International Journal of Mechanical Sciences, 2018, 146-147, 191-199.	3.6	6
29	Dynamic analysis of microbeams based on modified strain gradient theory using differential quadrature method. European Journal of Computational Mechanics, 2018, 27, 187-203.	0.6	9
30	A measurement free pre-etched pattern to identify theÂ<110>Âdirections on Si{110} wafer. Microsystem Technologies, 2017, 23, 2131-2137.	1.2	4
31	Synthesis of Patterned Vertically Aligned Carbon Nanotubes by PECVD Using Different Growth Techniques: A Review. Journal of Nanoscience and Nanotechnology, 2017, 17, 2256-2273.	0.9	27
32	Surface and nonlocal effects on response of linear and nonlinear NEMS devices. Applied Mathematical Modelling, 2017, 43, 252-267.	2.2	23
33	Nonlinear coupling of transverse modes of a fixedâ€“fixed microbeam under direct and parametric excitation. Nonlinear Dynamics, 2017, 87, 1271-1294.	2.7	10
34	Mass Sensitivity of Nonuniform Microcantilever Beams. Journal of Vibration and Acoustics, Transactions of the ASME, 2016, 138, .	1.0	9
35	Size modulated transition in the fluidâ€“structure interaction losses in nano mechanical beam resonators. Journal of Applied Physics, 2016, 119, .	1.1	5
36	Determination of precise crystallographic directions for mask alignment in wet bulk micromachining for MEMS. Micro and Nano Systems Letters, 2016, 4, .	1.7	7

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37	Modal Analysis of Monolithic and Jointed Type Cantilever Beams with Non-Uniform Section. Experimental Mechanics, 2016, 56, 1083-1094.	1.1	8
38	Frequency Analysis of Linearly Coupled Modes of MEMS Arrays. Journal of Vibration and Acoustics, Transactions of the ASME, 2016, 138, .	1.0	4
39	Capacitance and Force Computation Due to Direct and Fringing Effects in MEMS/NEMS Arrays. IEEE Sensors Journal, 2016, 16, 375-382.	2.4	21
40	Pull-in analysis of non-uniform microcantilever beams under large deflection. Journal of Applied Physics, 2015, 118, .	1.1	18
41	Coupling and tuning of modal frequencies in direct current biased microelectromechanical systems arrays. Applied Physics Letters, 2015, 107, 063104.	1.5	25
42	Nonlinear Response of a Microbeam Under Combined Direct and Fringing Field Excitation. Journal of Computational and Nonlinear Dynamics, 2015, 10, .	0.7	10
43	Electrostatic forces in fixed-fixed microbeams under direct and fringing field effects. , 2014, , .		0
44	Evaluation of Mode Dependent Fluid Damping in a High Frequency Drumhead Microresonator. Journal of Microelectromechanical Systems, 2014, 23, 334-346.	1.7	20
45	Effect of coupled modes on pull-in voltage and frequency tuning of a NEMS device. Journal of Micromechanics and Microengineering, 2013, 23, 085015.	1.5	15
46	Performance of an AuPd micromechanical resonator as a temperature sensor. Applied Physics Letters, 2010, 96, .	1.5	47
47	Design and characterization of in-plane MEMS yaw rate sensor. Sadhana - Academy Proceedings in Engineering Sciences, 2009, 34, 633-642.	0.8	7
48	Effect of metal coating and residual stress on the resonant frequency of MEMS resonators. Sadhana - Academy Proceedings in Engineering Sciences, 2009, 34, 651-661.	0.8	22
49	A comparative study of analytical squeeze film damping models in rigid rectangular perforated MEMS structures with experimental results. Microfluidics and Nanofluidics, 2008, 4, 205-218.	1.0	44
50	A semi-analytical model for squeeze-film damping including rarefaction in a MEMS torsion mirror with complex geometry. Journal of Micromechanics and Microengineering, 2008, 18, 105003.	1.5	38
51	Effect of Pressure on Fluid Damping in MEMS Torsional Resonators with Flow Ranging from Continuum to Molecular Regime. Experimental Mechanics, 2008, 48, 91-106.	1.1	44
52	Compact modeling of inertial and rarefaction effects on quality factor of MEMS torsional structures in continuum to molecular flows under low operating frequencies. , 2008, , .		0
53	Effect of flexural modes on squeeze film damping in MEMS cantilever resonators. Journal of Micromechanics and Microengineering, 2007, 17, 2475-2484.	1.5	102
54	Influence of Boundary Conditions on the Dynamic Characteristics of Squeeze Films in MEMS Devices. Journal of Microelectromechanical Systems, 2007, 16, 893-903.	1.7	27

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55	Analytical solution of the modified Reynolds equation for squeeze film damping in perforated MEMS structures. Sensors and Actuators A: Physical, 2007, 135, 839-848.	2.0	53
56	Coupled nonlinear effects of surface roughness and rarefaction on squeeze film damping in MEMS structures. Journal of Micromechanics and Microengineering, 2004, 14, 1430-1437.	1.5	32
57	A Hybrid Approach to Model the Temperature Effect in Tire Forces and Moments. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 10, 25-37.	0.4	3