

Pradeep Dixit

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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.

63 papers	950 citations	18 h-index	28 g-index
67 ext. papers	1,143 ext. citations	2.9 avg, IF	4.95 L-index

#	Paper	IF	Citations
63	Aspect-Ratio-Dependent Copper Electrodeposition Technique for Very High Aspect-Ratio Through-Hole Plating. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G552	3.9	107
62	Through-wafer electroplated copper interconnect with ultrafine grains and high density of nanotwins. <i>Applied Physics Letters</i> , 2007 , 90, 033111	3.4	63
61	Fabrication and characterization of fine pitch on-chip copper interconnects for advanced wafer level packaging by a high aspect ratio through AZ9260 resist electroplating. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 1078-1086	2	61
60	Fabrication of multiple through-holes in non-conductive materials by Electrochemical Discharge Machining for RF MEMS Packaging. <i>Journal of Materials Processing Technology</i> , 2019 , 271, 542-553	5.3	40
59	Structure and migration of (112) step on (111) twin boundaries in nanocrystalline copper. <i>Journal of Applied Physics</i> , 2008 , 104, 113717	2.5	37
58	High Aspect Ratio Vertical Through-Vias for 3D MEMS Packaging Applications by Optimized Three-Step Deep RIE. <i>Journal of the Electrochemical Society</i> , 2008 , 155, H85	3.9	34
57	Mechanical and microstructural characterization of high aspect ratio through-wafer electroplated copper interconnects. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 1749-1757	2	33
56	Effect of tool electrode roughness on the geometric characteristics of through-holes formed by ECDM. <i>Precision Engineering</i> , 2019 , 60, 437-447	2.9	31
55	Silicon nanopillars based 3D stacked microchannel heat sinks concept for enhanced heat dissipation applications in MEMS packaging. <i>Sensors and Actuators A: Physical</i> , 2008 , 141, 685-694	3.9	31
54	Effect of SF6 flow rate on the etched surface profile and bottom grass formation in deep reactive ion etching process. <i>Journal of Physics: Conference Series</i> , 2006 , 34, 577-582	0.3	31
53	Numerical and experimental investigations into microchannel formation in glass substrate using electrochemical discharge machining. <i>Journal of Micromechanics and Microengineering</i> , 2019 , 29, 075004 ²		30
52	Study of surface treatment processes for improvement in the wettability of silicon-based materials used in high aspect ratio through-via copper electroplating. <i>Applied Surface Science</i> , 2007 , 253, 8637-8646	6.7	30
51	Fabrication of High Aspect Ratio 35 μ m Pitch Through-Wafer Copper Interconnects by Electroplating for 3-D Wafer Stacking. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G305		30
50	Fabrication and Characterization of Through-Glass Vias by the ECDM Process. <i>Journal of the Electrochemical Society</i> , 2019 , 166, D531-D538	3.9	29
49	Numerical and Experimental Investigation of Thermomechanical Deformation in High-Aspect-Ratio Electroplated Through-Silicon Vias. <i>Journal of the Electrochemical Society</i> , 2008 , 155, H981	3.9	29
48	Failure mechanisms and optimum design for electroplated copper Through-Silicon Vias (TSV) 2009 ,		28
47	High Aspect Ratio Glass Micromachining by Multi-Pass Electrochemical Discharge Based Micromilling Technique. <i>ECS Journal of Solid State Science and Technology</i> , 2019 , 8, P322-P331	2	24

46	Void formation over limiting current density and impurity analysis of TSV fabricated by constant-current pulse-reverse modulation. <i>Microelectronics Reliability</i> , 2013 , 53, 1943-1953	1.2	23
45	Influence of tool electrode feed rate in the electrochemical discharge drilling of a glass substrate. <i>Materials and Manufacturing Processes</i> , 2020 , 35, 1749-1760	4.1	18
44	Fabrication and electrical characterization of high aspect ratio poly-silicon filled through-silicon vias. <i>Journal of Micromechanics and Microengineering</i> , 2012 , 22, 055021	2	17
43	Experimental investigations of energy channelization behavior in ultrasonic assisted electrochemical discharge machining. <i>Journal of Materials Processing Technology</i> , 2021 , 293, 117084	5.3	15
42	Numerical and experimental analysis of high-aspect-ratio micro-tool electrode fabrication using controlled electrochemical machining. <i>Journal of Applied Electrochemistry</i> , 2020 , 50, 169-184	2.6	14
41	Effect of Process Gases on Fabricating Tapered Through-Silicon vias by Continuous SF ₆ /O ₂ /Ar Plasma Etching. <i>ECS Journal of Solid State Science and Technology</i> , 2012 , 1, P107-P116	2	13
40	Effect of Clamping Ring Materials and Chuck Temperature on the Formation of Silicon Nanograss in Deep RIE. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G771	3.9	13
39	Micro array hole formation in glass using electrochemical discharge machining. <i>Procedia Manufacturing</i> , 2019 , 34, 349-354	1.5	11
38	Effect of Tool Electrode-Workpiece Gap in the Microchannel Formation by Electrochemical Discharge Machining. <i>ECS Journal of Solid State Science and Technology</i> , 2020 , 9, 034011	2	10
37	Measurement and analysis of the geometric characteristics of microholes and tool wear for varying tool-workpiece gaps in electrochemical discharge drilling. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021 , 168, 108463	4.6	10
36	Investigations into surface topography of glass microfeatures formed by pulsed electrochemical discharge milling for microsystem applications. <i>Microsystem Technologies</i> , 2020 , 26, 2105-2116	1.7	9
35	Effect of tool-electrode material in through-hole formation using ECDM process. <i>Materials and Manufacturing Processes</i> , 2021 , 36, 1019-1027	4.1	9
34	Void Formation and Intermetallic Growth in Pulse Electrodeposited Cu-Sn Layers for MEMS Packaging. <i>Journal of Electronic Materials</i> , 2018 , 47, 7386-7400	1.9	9
33	Through-holes micromachining of alumina using a combined pulse-feed approach in ECDM. <i>Materials and Manufacturing Processes</i> , 2021 , 36, 1501-1512	4.1	8
32	Via Technologies for MEMS 2015 , 694-712		7
31	Effect of improved wettability of silicon-based materials with electrolyte for void free copper deposition in high aspect ratio through-vias. <i>Thin Solid Films</i> , 2008 , 516, 5194-5200	2.2	7
30	Design, fabrication, and characterization of SU-8/carbon black nanocomposite based polymer MEMS acceleration sensor. <i>Microsystem Technologies</i> , 2020 , 26, 2857-2867	1.7	6
29	Experimental investigations into alumina ceramic micromachining by electrochemical discharge machining process. <i>Procedia Manufacturing</i> , 2020 , 48, 244-250	1.5	6

28	The application of dry photoresists in fabricating cost-effective tapered through-silicon vias and redistribution lines in a single step. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 025020	2	6
27	Experimental investigations in the intermetallic and microvoid formation in sub-200 °C CuSn bonding. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 16427-16438	2.1	5
26	Effect of surface roughness on void formation and intermetallic growth in electrodeposited Cu-Sn stacks. <i>Materials Letters</i> , 2019 , 257, 126710	3.3	5
25	Mechanical and Microstructural Characterization of Through-Silicon Via Fabricated with Constant Current Pulse-Reverse Modulation. <i>Journal of the Electrochemical Society</i> , 2010 , 157, D323	3.9	5
24	Experimental investigation into tool wear behaviour of line-array tool electrode during the electrochemical discharge micromilling process. <i>Journal of Manufacturing Processes</i> , 2021 , 72, 93-104	5	5
23	A review of intermetallic compound growth and void formation in electrodeposited CuSn Layers for microsystems packaging. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 6742-6777	2.1	5
22	Investigation of Carbon Nanotube Growth on Multimetal Layers for Advanced Interconnect Applications in Microelectronic Devices. <i>Journal of the Electrochemical Society</i> , 2009 , 156, K23	3.9	4
21	Investigation of tool wear in alumina micromachining by multi-tip ECDM. <i>Materials and Manufacturing Processes</i> , 1-7	4.1	4
20	Role of tool-substrate gap in the micro-holes formation by electrochemical discharge machining. <i>Procedia Manufacturing</i> , 2020 , 48, 492-497	1.5	4
19	Fabrication of Through-glass Vias (TGV) based 3D microstructures in glass substrate by a lithography-free process for MEMS applications. <i>Applied Surface Science</i> , 2022 , 584, 152494	6.7	3
18	Fabrication of Deep Microfeatures in Glass Substrate using Electrochemical Discharge Machining for Biomedical and Microfluidic Applications 2019 ,		3
17	2019 ,		3
16	Effect of Tool Path Complexity on Top Burrs in Micromilling. <i>Procedia Manufacturing</i> , 2019 , 34, 432-439	1.5	2
15	2013 ,		2
14	Characterization of Nano-grained High Aspect Ratio Through-wafer Copper Interconnect Column 2007 ,		2
13	Design and fabrication of through-glass via (TGV) based 3D spiral inductors in fused silica substrate. <i>Microsystem Technologies</i> , 1	1.7	2
12	Cathode shape prediction for uniform electrochemical dissolution of array tools for ECDM applications. <i>Materials and Manufacturing Processes</i> , 1-11	4.1	2
11	Void Formation in Low-Temperature Electroplated Cu-Sn Stack for Hermetic Packaging 2019 ,		2

10	Induced-Stress Analysis of SU-8 Polymer Based Single Mass 3-Axis Piezoresistive MEMS Accelerometer 2019 ,		2
9	Ultrasonic-assisted surface roughening of glass substrate to improve adhesion of electroless nickel seed layer in microsystems packaging. <i>Materials Letters</i> , 2022 , 316, 132033	3.3	2
8	A review on microholes formation in glass-based substrates by electrochemical discharge drilling for MEMS applications. <i>Machining Science and Technology</i> , 2022 , 26, 276-337	2	2
7	Concept and Analytical analysis of Silicon micro/nanopillars based 3-D stacked microchannel heat sink for advanced heat dissipation applications 2007 ,		1
6	Mechanical and microstructure characterization of high aspect ratio electroplated through-wafer copper interconnects 2006 ,		1
5	Effect of pulse frequency and duty cycle on electrochemical dissolution behavior of multi-tip array tool electrode for reusability in the ECDM process. <i>Journal of Applied Electrochemistry</i> , 2022 , 52, 667	2.6	1
4	Fabrication and Characterization of Through-glass vias (TGV) based 3D Spiral and Toroidal Inductors by Cost-effective ECDM Process 2020 ,		1
3	Experimental and Theoretical Dynamic Investigation of MEMS Polymer Mass-Spring Systems. <i>IEEE Sensors Journal</i> , 2020 , 20, 11191-11203	4	0
2	Formation of macro-sized through-holes in glass using notch-shaped tubular electrodes in electrochemical discharge machining. <i>Journal of Manufacturing Processes</i> , 2022 , 78, 92-106	5	0
1	Through-substrate vias based three-dimensional interconnection technology 2020 , 721-741		