

Hyunseop Lee

List of Publications by Year in descending order

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62
papers

1,142
citations

430754

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434063

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64
all docs

64
docs citations

64
times ranked

517
citing authors

#	ARTICLE	IF	CITATIONS
1	Approaches to Sustainability in Chemical Mechanical Polishing (CMP): A Review. International Journal of Precision Engineering and Manufacturing - Green Technology, 2022, 9, 349-367.	2.7	34
2	Hybrid CMP Slurry Supply System Using Ionization and Atomization. Applied Sciences (Switzerland), 2021, 11, 2217.	1.3	4
3	Contact-Area-Changeable CMP Conditioning for Enhancing Pad Lifetime. Applied Sciences (Switzerland), 2021, 11, 3521.	1.3	5
4	Electrolytically Ionized Abrasive-Free CMP (EAF-CMP) for Copper. Applied Sciences (Switzerland), 2021, 11, 7232.	1.3	5
5	Simulation and experimental analysis of abrasive fluidized bed machining process. Journal of Mechanical Science and Technology, 2020, 34, 2153-2160.	0.7	4
6	Preliminary Study on Fluidized Bed Chemical Mechanical Polishing (FB-CMP) Process for Stainless Steel 304 (SS304). Micromachines, 2020, 11, 705.	1.4	8
7	Preliminary Study on Polishing SLA 3D-Printed ABS-Like Resins for Surface Roughness and Glossiness Reduction. Micromachines, 2020, 11, 843.	1.4	13
8	Simulation on Polishing Pad Wear in CMP Conditioning with Split Conditioner Disk. , 2020, , .		2
9	Effect of Frictional Characteristics on Surface Roughness and Glossiness in Polishing of ABS-Like Resin. Journal of the Korean Society for Precision Engineering, 2020, 37, 797-802.	0.1	0
10	Semi-empirical Material Removal Model with Modified Real Contact Area for CMP. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1325-1332.	1.1	15
11	Surface Activation by Electrolytically Ionized Slurry during Cu CMP. ECS Journal of Solid State Science and Technology, 2019, 8, P3053-P3057.	0.9	4
12	Friction and Wear Characteristics of ABS-like Resin for 3D Printing Under Non-Lubricated Condition. Journal of the Korean Society for Precision Engineering, 2019, 36, 1117-1124.	0.1	2
13	Investigation of pad wear in CMP with swing-arm conditioning and uniformity of material removal. Precision Engineering, 2017, 49, 85-91.	1.8	21
14	Environmental impact of concentration of slurry components in thick copper CMP. International Journal of Precision Engineering and Manufacturing - Green Technology, 2017, 4, 13-18.	2.7	14
15	Estimating the mechanical properties of polyurethane-impregnated felt pads. Journal of Mechanical Science and Technology, 2017, 31, 5705-5710.	0.7	7
16	Electrochemical Analysis of the Slurry Composition for Chemical Mechanical Polishing of Flexible Stainless-Steel Substrates. Journal of Friction and Wear, 2017, 38, 482-489.	0.1	12
17	Effect of Hydrogen Peroxide and Oxalic Acid on Material Removal in Al CMP. Journal of the Korean Society for Precision Engineering, 2017, 34, 307-310.	0.1	2
18	Slurry components in metal chemical mechanical planarization (CMP) process: A review. International Journal of Precision Engineering and Manufacturing, 2016, 17, 1751-1762.	1.1	69

#	ARTICLE	IF	CITATIONS
19	Mechanical aspects of the chemical mechanical polishing process: A review. International Journal of Precision Engineering and Manufacturing, 2016, 17, 525-536.	1.1	100
20	Mathematical modeling of material removal rate in roll-type linear CMP (roll-CMP) process: Effect of polishing pad. International Journal of Precision Engineering and Manufacturing, 2016, 17, 495-501.	1.1	6
21	Development of green CMP by slurry reduction through controlling platen coolant temperature. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 339-344.	2.7	19
22	The effects of a spray slurry nozzle on copper CMP for reduction in slurry consumption. Journal of Mechanical Science and Technology, 2015, 29, 5057-5062.	0.7	18
23	A study on swing-arm conditioning for enhancing pad lifetime in CMP. , 2014, , .		0
24	Mathematical model-based evaluation methodology for environmental burden of chemical mechanical planarization process. International Journal of Precision Engineering and Manufacturing - Green Technology, 2014, 1, 11-15.	2.7	21
25	Experimental investigation of process parameters for roll-type linear chemical mechanical polishing (Roll-CMP) system. Precision Engineering, 2014, 38, 928-934.	1.8	14
26	Preliminary study on the effect of spray slurry nozzle in CMP for environmental sustainability. International Journal of Precision Engineering and Manufacturing, 2014, 15, 995-1000.	1.1	13
27	Statistical Analysis on Process Variables in Linear Roll-CMP. Journal of the Korean Society of Tribologists and Lubrication Engineers, 2014, 30, 139-145.	0.1	2
28	Analysis of Acoustic Emission Signal Sensitivity to Variations in Thin-film Material Properties During CMP Process. Transactions of the Korean Society of Mechanical Engineers, A, 2014, 38, 863-867.	0.1	0
29	Evaluation of environmental impacts during chemical mechanical polishing (CMP) for sustainable manufacturing. Journal of Mechanical Science and Technology, 2013, 27, 511-518.	0.7	20
30	Effect of wafer size on material removal rate and its distribution in chemical mechanical polishing of silicon dioxide film. Journal of Mechanical Science and Technology, 2013, 27, 2911-2916.	0.7	18
31	Effect of contact angle between retaining ring and polishing pad on material removal uniformity in CMP process. International Journal of Precision Engineering and Manufacturing, 2013, 14, 1513-1518.	1.1	11
32	Effect of heat according to wafer size on the removal rate and profile in CMP process. Electronic Materials Letters, 2013, 9, 755-758.	1.0	3
33	Semi-empirical material removal rate distribution model for SiO ₂ chemical mechanical polishing (CMP) processes. Precision Engineering, 2013, 37, 483-490.	1.8	81
34	Effect of Process Parameters on Particle Removal Efficiency in Poly(vinyl alcohol) Brush Scrubber Cleaning. Japanese Journal of Applied Physics, 2012, 51, 026501.	0.8	7
35	Macroscopic and Microscopic Investigation on Chemical Mechanical Polishing of Sapphire Wafer. Journal of Nanoscience and Nanotechnology, 2012, 12, 1256-1259.	0.9	26
36	Prediction of Real Contact Area from Microtopography on CMP Pad. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2012, 6, 113-120.	0.3	12

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37	Effect of pad groove geometry on material removal characteristics in chemical mechanical polishing. International Journal of Precision Engineering and Manufacturing, 2012, 13, 303-306.	1.1	24
38	Temperature distribution in polishing pad during CMP process: Effect of retaining ring. International Journal of Precision Engineering and Manufacturing, 2012, 13, 25-31.	1.1	14
39	Effect of Process Parameters on Particle Removal Efficiency in Poly(vinyl alcohol) Brush Scrubber Cleaning. Japanese Journal of Applied Physics, 2012, 51, 026501.	0.8	6
40	A wafer-scale material removal rate profile model for copper chemical mechanical planarization. International Journal of Machine Tools and Manufacture, 2011, 51, 395-403.	6.2	58
41	Chemical mechanical planarization of copper bumps on printed circuit board. International Journal of Precision Engineering and Manufacturing, 2011, 12, 149-152.	1.1	9
42	Application of electrolytic in-process dressing (ELID) grinding and chemical mechanical polishing (CMP) process for emerging hard brittle materials used in light-emitting diodes. Journal of Crystal Growth, 2011, 326, 140-146.	0.7	35
43	Research on CMP Characteristics Attribute to Groove Size. Advanced Materials Research, 2011, 189-193, 4112-4115.	0.3	2
44	Effect of additives for higher removal rate in lithium niobate chemical mechanical planarization. Applied Surface Science, 2010, 256, 1683-1688.	3.1	11
45	Effect of mechanical factor in uniformity for electrochemical mechanical planarization. Sensors and Actuators A: Physical, 2010, 163, 433-439.	2.0	6
46	Hybrid polishing mechanism of single crystal SiC using mixed abrasive slurry (MAS). CIRP Annals - Manufacturing Technology, 2010, 59, 333-336.	1.7	71
47	Chemical Mechanical Polishing of a Ti-Si-N Nanocomposite and AFM Study on Its Nanostructure. Journal of the Korean Physical Society, 2010, 57, 845-849.	0.3	6
48	Experimental Investigation of Material Removal Characteristics in Silicon Chemical Mechanical Polishing. Japanese Journal of Applied Physics, 2009, 48, 116505.	0.8	17
49	Mechanical effect of process condition and abrasive concentration on material removal rate profile in copper chemical mechanical planarization. Journal of Materials Processing Technology, 2009, 209, 1729-1735.	3.1	26
50	Mechanical effect of colloidal silica in copper chemical mechanical planarization. Journal of Materials Processing Technology, 2009, 209, 6134-6139.	3.1	50
51	Chemical and mechanical balance in polishing of electronic materials for defect-free surfaces. CIRP Annals - Manufacturing Technology, 2009, 58, 485-490.	1.7	75
52	Influence of slurry components on uniformity in copper chemical mechanical planarization. Microelectronic Engineering, 2008, 85, 689-696.	1.1	44
53	Pad roughness variation and its effect on material removal profile in ceria-based CMP slurry. Journal of Materials Processing Technology, 2008, 203, 287-292.	3.1	36
54	Effect of Process Parameters on Friction Force and Material Removal in Oxide Chemical Mechanical Polishing. Japanese Journal of Applied Physics, 2008, 47, 8771-8778.	0.8	17

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55	Chemical Mechanical Planarization Method for Thick Copper Films of Micro-Electro-Mechanical Systems and Integrated Circuits. Japanese Journal of Applied Physics, 2008, 47, 5708.	0.8	15
56	The Characteristics of Frictional Behaviour in CMP Using an Integrated Monitoring System. Key Engineering Materials, 2007, 339, 152-157.	0.4	6
57	A Study on Frictional Characteristics and Polishing Result of SiO ₂ Slurry in CMP. Transactions of the Korean Society of Mechanical Engineers, A, 2005, 29, 983-989.	0.1	2
58	Tribological Effect of Abrasives on Material Removal in Oxide CMP(Surface and edge finishing). Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2005, 2005.3, 1205-1209.	0.0	0
59	The Effect of Mixed Abrasive Slurry on CMP of 6H-SiC Substrate. Materials Science Forum, 0, 569, 133-136.	0.3	7
60	The Effect of PVA Brush Scrubbing on Post CMP Cleaning Process for Damascene Cu Interconnection. Solid State Phenomena, 0, 145-146, 367-370.	0.3	8
61	Effect of Citric Acid in Chemical Mechanical Polishing (CMP) for Lithium Tantalate (LiTaO ₃) Wafer. Advanced Materials Research, 0, 1136, 305-310.	0.3	5
62	Material Removal Model of Lap Grinding for Sapphire Substrate Based on Roughness Parameters. Materials Science Forum, 0, 890, 384-387.	0.3	0