Soocheon Jang

List of Publications by Year
in descending order

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57
papers

957
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430442

18
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500791

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57
all docs

57
docs citations

57
times ranked

560
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	Material Removal Model for Lapping Process Based on Spiral Groove Density. Applied Sciences (Switzerland), 2021, 11, 3950.	1.3	1
3	Effect of the Lapping Platen Groove Density on the Characteristics of Microabrasive-Based Lapping. Micromachines, 2020, 11, 775.	1.4	2
4	Mathematical modeling based on contact mechanism due to elastic and plastic deformation of pad asperities during CMP. Journal of Mechanical Science and Technology, 2020, 34, 289-300.	0.7	5
5	Reduction of the Maximum Step Height on a Package Substrate by the Optimization of Slurry Chemical Additives. International Journal of Precision Engineering and Manufacturing, 2019, 20, 905-913.	1.1	3
6	Effect of Relative Surface Charge of Colloidal Silica and Sapphire on Removal Rate in Chemical Mechanical Polishing. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 339-347.	2.7	13
7	Effect of spray nozzle position on pad temperature distribution and wafer non-uniformity. Journal of Mechanical Science and Technology, 2019, 33, 5677-5682.	0.7	0
8	Chemical mechanical planarization of advanced package substrate by controlling selectivity of copper to polymer. Journal of Mechanical Science and Technology, 2018, 32, 3843-3848.	0.7	4
9	Effect of mixing ratio of non-spherical particles in colloidal silica slurry on oxide CMP. International Journal of Precision Engineering and Manufacturing, 2017, 18, 1333-1338.	1.1	14
10	Wafer size effect on material removal rate in copper CMP process. Journal of Mechanical Science and Technology, 2017, 31, 2961-2964.	0.7	4
11	Self-dressing effect using a fixed abrasive platen for single-sided lapping of sapphire substrate. Journal of Mechanical Science and Technology, 2017, 31, 5649-5655.	0.7	8
12	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
13	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
14	Characterization of diamond wire-cutting performance for lifetime estimation and process optimization. Journal of Mechanical Science and Technology, 2016, 30, 847-852.	0.7	23
15	Mechanical aspects of the chemical mechanical polishing process: A review. International Journal of Precision Engineering and Manufacturing, 2016, 17, 525-536.	1.1	100
16	From design for manufacturing (DFM) to manufacturing for design (MFD) via hybrid manufacturing and smart factory: A review and perspective of paradigm shift. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 209-222.	2.7	59
17	Effect of platen shape on evolution of total thickness variation in single-sided lapping of sapphire wafer. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 225-229.	2.7	9
18	Preface for the special issue of hybrid manufacturing. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 145-145.	2.7	0

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19	Effect of glycine on copper CMP. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 155-159.	2.7	19
20	Effect of diluted colloidal silica slurry mixed with ceria abrasives on CMP characteristic. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 13-17.	2.7	15
21	Effect of non-spherical colloidal silica particles on removal rate in oxide CMP. International Journal of Precision Engineering and Manufacturing, 2015, 16, 2611-2616.	1.1	19
22	Analysis of pressure distribution and verification of pressure signal by changes load and velocity in chemical mechanical polishing. International Journal of Precision Engineering and Manufacturing, 2015, 16, 1061-1066.	1.1	13
23	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
24	Analysis of removal mechanism on oxide CMP using mixed abrasive slurry. International Journal of Precision Engineering and Manufacturing, 2015, 16, 603-607.	1.1	36
25	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
26	Combined study on conductive AFM and damascene process to visualize Nano-Scaled defects in Cr thin films on polymer substrate. Electronic Materials Letters, 2015, 11, 164-169.	1.0	0
27	Signal analysis of CMP process based on AE monitoring system. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 15-19.	2.7	14
28	Effect of surfactant on package substrate in chemical mechanical planarization. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 59-63.	2.7	20
29	Effect of initial deflection of diamond wire on thickness variation of sapphire wafer in multi-wire saw. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 117-121.	2.7	32
30	The influence of abrasive size on high-pressure chemical mechanical polishing of sapphire wafer. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 157-162.	2.7	40
31	Analysis of wafer edge pressure distribution using intelligent pad in chemical mechanical polishing. , 2014, , .		0
32	A study on swing-arm conditioning for enhancing pad lifetime in CMP. , 2014, , .		0
33	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
34	Development of intelligent pad monitoring system and application to analysis of pressure distribution in chemical mechanical polishing process. International Journal of Precision Engineering and Manufacturing, 2014, 15, 2005-2009.	1.1	5
35	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
36	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

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37	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
38	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
39	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
40	Planarization of wafer edge profile in chemical mechanical polishing. International Journal of Precision Engineering and Manufacturing, 2013, 14, 11-15.	1.1	20
41	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
42	Evaluation of oxide-chemical mechanical polishing characteristics using ceria-mixed abrasive slurry. Electronic Materials Letters, 2012, 8, 523-528.	1.0	10
43	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
44	Structural effect of PVA brush nodule on particle removal efficiency during brush scrubber cleaning. International Journal of Precision Engineering and Manufacturing, 2012, 13, 451-454.	1.1	4
45	Correlation between process parameters and electrochemical surface state for electrochemical-mechanical polishing application of copper in acid- and alkali-based electrolyte. Electronic Materials Letters, 2012, 8, 81-85.	1.0	4
46	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
47	Chemical mechanical planarization of copper bumps on printed circuit board. International Journal of Precision Engineering and Manufacturing, 2011, 12, 149-152.	1.1	9
48	A study on the correlation between pad property and material removal rate in CMP. International Journal of Precision Engineering and Manufacturing, 2011, 12, 917-920.	1.1	23
49	Effect of additives for higher removal rate in lithium niobate chemical mechanical planarization. Applied Surface Science, 2010, 256, 1683-1688.	3.1	11
50	Mechanical effect of colloidal silica in copper chemical mechanical planarization. Journal of Materials Processing Technology, 2009, 209, 6134-6139.	3.1	50
51	Local/global planarization of polysilicon micropatterns by selectivity controlled CMP. International Journal of Precision Engineering and Manufacturing, 2009, 10, 31-36.	1.1	8
52	Effect of polishing pad with holes in electro-chemical mechanical planarization. Microelectronic Engineering, 2008, 85, 2236-2242.	1.1	15
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	Correlation between break-in characteristics and pad surface conditions in silicon wafer polishing. Journal of Materials Processing Technology, 2008, 205, 360-365.	3.1	13

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55	A study on the fabrication of micro groove on SI wafer using chemical mechanical machining. Journal of Mechanical Science and Technology, 2005, 19, 2096-2104.	0.7	8
56	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
57	A Study on Manufacture and Evaluation of CMP pad with Controllable Contact Area(Surface and edge) Tj ETQq1 1 0.784314 rgBT /Ov LEM21, 2005, 2005.3, 1211-1215.	0.0	0