

David L Butler

List of Publications by Year in descending order

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45
papers

856
citations

516710

16
h-index

477307

29
g-index

46
all docs

46
docs citations

46
times ranked

678
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulation of precision grinding process, part 1: generation of the grinding wheel surface. <i>International Journal of Machine Tools and Manufacture</i> , 2005, 45, 1321-1328.	13.4	107
2	Simulation of surface grinding process, part 2: interaction of the abrasive grain with the workpiece. <i>International Journal of Machine Tools and Manufacture</i> , 2005, 45, 1329-1336.	13.4	93
3	Bias-graded deposition of diamond-like carbon for tribological applications. <i>Diamond and Related Materials</i> , 2004, 13, 867-871.	3.9	79
4	Correlation of grinding wheel topography and grinding performance: A study from a viewpoint of three-dimensional surface characterisation. <i>Journal of Materials Processing Technology</i> , 2008, 208, 14-23.	6.3	63
5	Fabrication of a micro-size diamond tool using a focused ion beam. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 075017.	2.6	57
6	The characterisation of grinding wheels using 3D surface measurement techniques. <i>Journal of Materials Processing Technology</i> , 2002, 127, 234-237.	6.3	53
7	Simulation of droplet formation and coalescence using lattice Boltzmann-based single-phase model. <i>Journal of Colloid and Interface Science</i> , 2007, 311, 609-618.	9.4	45
8	Topographic features of cylinder liners – an application of three-dimensional characterization techniques. <i>Tribology International</i> , 1995, 28, 453-463.	5.9	38
9	A Non-Contact Measuring System for In-Situ Surface Characterization Based on Laser Confocal Microscopy. <i>Sensors</i> , 2018, 18, 2657.	3.8	38
10	New approach to estimate coverage parameter in 3D FEM shot peening simulation. <i>Surface Engineering</i> , 2017, 33, 687-695.	2.2	31
11	A novel media properties-based material removal rate model for magnetic field-assisted finishing. <i>International Journal of Mechanical Sciences</i> , 2018, 141, 189-197.	6.7	29
12	Structural evolution in Ti–Si alloy synthesized by mechanical alloying. <i>Physica B: Condensed Matter</i> , 2004, 352, 299-304.	2.7	20
13	Machining with micro-size single crystalline diamond tools fabricated by a focused ion beam. <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 025005.	2.6	20
14	Lattice Boltzmann-based single-phase method for free surface tracking of droplet motions. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 53, 333-351.	1.6	18
15	Operational implications of early supplier involvement in semiconductor manufacturing firms. <i>Journal of Manufacturing Technology Management</i> , 2008, 19, 913-932.	6.4	17
16	The influence of surface topography on the photocatalytic activity of electrophoretically deposited titanium dioxide thin films. <i>Wear</i> , 2009, 266, 585-588.	3.1	17
17	The effects of hard particles on the surface quality when micro-cutting aluminum 6061 T6. <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 115013.	2.6	15
18	Effects of shot peening pressure, media type and double shot peening on the microstructure, mechanical and tribological properties of low-alloy steel. <i>Surface Topography: Metrology and Properties</i> , 2016, 4, 045001.	1.6	14

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19	Microstructure formation of porous sintered Tiâ€“Siâ€“Zr compacts with mechanically alloyed-activated Tiâ€“Si and TiH ₂ powders. Journal of Alloys and Compounds, 2014, 594, 202-210.	5.5	13
20	Correlation-length-based sampling conditions for various engineering surfaces. Measurement Science and Technology, 2005, 16, 1813-1822.	2.6	12
21	A lattice Boltzmann based single-phase method for modeling surface tension and wetting. Computational Materials Science, 2007, 39, 282-290.	3.0	12
22	Effect of Shot Peening Process on the Fatigue Life of Shot Peened Low Alloy Steel. Journal of Engineering Materials and Technology, Transactions of the ASME, 2018, 140, .	1.4	12
23	An investigation of the properties of conventional and severe shot peened low alloy steel. Materials Research Express, 2017, 4, 076501.	1.6	10
24	Elastic modulus of sintered porous Tiâ€“Siâ€“Zr, using activation by Tiâ€“Si mechanically alloyed powder and TiH ₂ powder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 475, 45-51.	5.6	8
25	Effects of laser ablation on cemented tungsten carbide surface quality. Applied Physics A: Materials Science and Processing, 2010, 101, 265-269.	2.3	7
26	Compositional depth profile analysis of coatings on hard disks by X-ray photoelectron spectroscopy and imaging. Surface and Coatings Technology, 2003, 176, 93-102.	4.8	6
27	Experimental study on low pulse energy processing with femtosecond lasers for glaucoma treatment. Lasers in Medical Science, 2009, 24, 151-154.	2.1	4
28	An innovative method for coordinate measuring machine one-dimensional self-calibration with simplified experimental process. Review of Scientific Instruments, 2013, 84, 055103.	1.3	3
29	A Numerical and Experimental Study of Distribution of the Residual Stress on the Shot Peened Low Alloy Steel. Journal of Engineering Materials and Technology, Transactions of the ASME, 2018, 140, .	1.4	3
30	Study on hardness and wear resistance of shot peened AA7075-T6 aluminum alloy. Engineering Research Express, 2021, 3, 015031.	1.6	3
31	Reversible wetting of titanium dioxide films. Proceedings of SPIE, 2007, , .	0.8	2
32	THE EVALUATION AND MODELING OF THE CMP REMOVAL RATE FOR POLYSILICON. International Journal of Nanoscience, 2005, 04, 753-760.	0.7	1
33	Nanometric material removal using the electrokinetic phenomenon. Proceedings of SPIE, 2007, , .	0.8	1
34	Environmentally Benign Material Removal Processes for the Fabrication of Microdevices. Materials Science Forum, 0, 620-622, 451-456.	0.3	1
35	Development of Media for Low Pressure Abrasive Flow Machining. Advanced Materials Research, 2010, 126-128, 148-153.	0.3	1
36	The Three-Dimensional Surface Topographic Characterisation of Diamond Grinding Wheels. Advanced Materials Research, 2010, 126-128, 690-695.	0.3	1

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37	The Topographic Characterisation of Grinding Wheels – A Proposed Measurement Strategy. Advanced Materials Research, 2014, 1017, 686-691.	0.3	1
38	A Lattice Boltzmann based Single-Phase Model: Surface Tension and Wetting. , 2009, , 619-624.		1
39	Compensation of shadow effect for one-dimensional diffractive structures via an approach of microfabrication. Review of Scientific Instruments, 2005, 76, 093116.	1.3	0
40	Cure Characterization Of TECHNOVIT 3040 For Micro Level Surface Replication. Materials Research Innovations, 2006, 10, 268-274.	2.3	0
41	Influence of Particle Effects on the Material Removal Rate Utilizing Electrokinetic Phenomenon. Advanced Materials Research, 0, 76-78, 27-32.	0.3	0
42	Influence of the Electrochemical Dissolution Effect on the Material Removal Rate Utilizing Electrokinetic Phenomenon. Advanced Materials Research, 0, 126-128, 873-878.	0.3	0
43	Effects of Crystallographic Structure on Machining Performance with Polycrystalline Oxygen Free Copper by a Single Crystalline Diamond Micro-Tool. Key Engineering Materials, 0, 447-448, 31-35.	0.4	0
44	Measurement of microchannels inside transparent substrate based on confocal microscopy. , 2011, , .		0
45	A Methodology to Reduce the Wafer to Wafer Thickness Variation in Chemical Mechanical Planarization (CMP). , 2005, , .		0