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List of Publications by Year in Descending Order

328 papers	4,934 citations	37 h-index	52 g-index
345 ext. papers	5,934 ext. citations	4 avg, IF	6.22 L-index

#	Paper	IF	Citations
328	Inhibiting the Leidenfrost effect above 1,000 °C for sustained thermal cooling.. *Nature*, **2022**, 601, 568-572	50.4	18
327	Microstructured surface generation and cutting force prediction of pure titanium TA2. *Precision Engineering*, **2022**, 75, 101-110	2.9	1
326	Thematic analysis of sustainable ultra-precision machining by using text mining and unsupervised learning method. *Journal of Manufacturing Systems*, **2022**, 62, 218-233	9.1	2
325	Theoretical and experimental investigations of magnetic field assisted ultra-precision machining of titanium alloys. *Journal of Materials Processing Technology*, **2022**, 300, 117429	5.3	2
324	Analytical modeling and prediction of cutting forces in orthogonal turning: a review. *International Journal of Advanced Manufacturing Technology*, **2022**, 119, 1407	3.2	0
323	SLC-GAN: An Automated Myocardial Infarction Detection Model Based on Generative Adversarial Networks and Convolutional Neural Networks with Single-Lead Electrocardiogram Synthesis. *Information Sciences*, **2022**, 589, 738-738	7.7	9
322	Material removal energy in ultraprecision machining of micro-lens arrays on single crystal silicon by slow tool servo. *Journal of Cleaner Production*, **2022**, 335, 130295	10.3	0
321	Effects of wheel spindle error motion on surface generation in grinding. *International Journal of Mechanical Sciences*, **2022**, 218, 107046	5.5	1
320	Ultra-Precision Diamond Machined Freeform Optical Parts and Structures **2022**, 462-477		
319	Discover the trend and evolution of sustainable manufacturing: a thematic and bibliometric analysis.. *Environmental Science and Pollution Research*, **2022**, 1	5.1	1
318	Effect of cutting speed on surface integrity and chip formation in micro-cutting of Zr-based bulk metallic glass. *International Journal of Advanced Manufacturing Technology*, **2021**, 114, 3301-3310	3.2	0
317	The material removal and the nanometric surface characteristics formation mechanism of TiC/Ni cermet in ultra-precision grinding. *International Journal of Refractory Metals and Hard Materials*, **2021**, 96, 105494	4.1	0
316	Explosive Pancake Bouncing on Hot Superhydrophilic Surfaces. *ACS Applied Materials & Interfaces*, **2021**, 13, 24321-24328	9.5	6
315	Development of a two-degree-of-freedom vibration generator for fabricating optical microstructure arrays. *Optics Express*, **2021**, 29, 25903-25921	3.3	1
314	Case study for sampling effect in nanometric surface roughness of ultra-precision grinding. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, **2021**, 235, 650-656	1.5	1
313	Nonlinear Analysis of Stability and Rotational Accuracy of an Unbalanced Rotor Supported by Aerostatic Journal Bearings. *IEEE Access*, **2021**, 9, 61887-61900	3.5	2
312	Tri-axial Fast Tool Servo Using Hybrid Electromagnetic-Piezoelectric Actuation for Diamond Turning. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	6

311	A novel direct drive electromagnetic XY nanopositioning stage. *CIRP Annals - Manufacturing Technology*, **2021**, 70, 415-418	4.9	2
310	Identification of stakeholder related barriers in sustainable manufacturing using Social Network Analysis. *Sustainable Production and Consumption*, **2021**, 27, 1903-1917	8.2	8
309	Analytical modelling of the trans-scale cutting forces in diamond cutting of polycrystalline metals considering material microstructure and size effect. *International Journal of Mechanical Sciences*, **2021**, 204, 106575	5.5	4
308	A critical analysis of sustainable micro-manufacturing from the perspective of the triple bottom line: A social network analysis. *Environmental Impact Assessment Review*, **2021**, 90, 106628	5.3	5
307	Generation of structural colors on pure magnesium surface using the vibration-assisted diamond cutting. *Materials Letters*, **2021**, 299, 130041	3.3	0
306	Effects of microstructures on the material removal energy in ultraprecision machining of Ti6Al4V alloys. *Materials Letters*, **2021**, 300, 130231	3.3	
305	Cyclic shear angle for lamellar chip formation in ultra-precision machining. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2020**, 234, 2673-2680	1.3	4
304	Characterization of the Friction Coefficient of Aluminum Alloy 6061 in Ultra-Precision Machining. *Metals*, **2020**, 10, 336	2.3	4
303	Novel fabrication of a hierarchical structured surface with improved corrosion inhibition by using hydrothermal synthesis and ultraprecision machining. *Surface and Coatings Technology*, **2020**, 385, 125432	4.4	3
302	Energy consumption modeling of ultra-precision machining and the experimental validation. *Energy* , **2020**, 196, 117018	7.9	2
301	Twinned-serrated chip formation with minor shear bands in ultra-precision micro-cutting of bulk metallic glass. *International Journal of Advanced Manufacturing Technology*, **2020**, 107, 4437-4448	3.2	4
300	Deterioration of form accuracy induced by servo dynamics errors and real-time compensation for slow tool servo diamond turning of complex-shaped optics. *International Journal of Machine Tools and Manufacture*, **2020**, 154, 103556	9.4	8
299	Development of self-tuned diamond milling system for fabricating infrared micro-optics arrays with enhanced surface uniformity and machining efficiency. *Optics Express*, **2020**, 28, 2221-2237	3.3	3
298	Fast-tool-servo micro-grooving freeform surfaces with embedded metrology. *CIRP Annals - Manufacturing Technology*, **2020**, 69, 505-508	4.9	11
297	A theoretical and experimental investigation of cutting forces and spring back behaviour of Ti6Al4V alloy in ultraprecision machining of microgrooves. *International Journal of Mechanical Sciences*, **2020**, 169, 105315	5.5	13
296	Development of thin sound absorber by parameter optimization of multilayer compressed porous metal with rear cavity. *Applied Acoustics*, **2020**, 159, 107071	3.1	16
295	Effects of eco-friendly cooling strategy on machining performance in micro-scale diamond turning of Ti6Al4V. *Journal of Cleaner Production*, **2020**, 243, 118526	10.3	13
294	Size effect on surface generation of multiphase alloys in ultra-precision fly cutting. *Journal of Manufacturing Processes*, **2020**, 60, 23-36	5	4

293	Preliminary investigation on ultra-precision diamond turning of titanium alloys using thermoelectric cooler fixture. *Journal of Manufacturing Processes*, **2020**, 58, 187-192	5	2
292	Characterization of intermediate wetting states on micro-grooves by water droplet contact line. *Journal of Industrial and Engineering Chemistry*, **2020**, 91, 69-78	6.3	4
291	Social network analysis for optimal machining conditions in ultra-precision manufacturing. *Journal of Manufacturing Systems*, **2020**, 56, 93-103	9.1	7
290	An Interaction Investigation of the Contributing Factors of the Bullwhip Effect Using a Bi-Level Social Network Analysis Approach. *IEEE Access*, **2020**, 8, 208737-208752	3.5	2
289	Sustainable Ultra-Precision Machining of Titanium Alloy Using Intermittent Cutting. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2020**, 7, 361-373	3.8	6
288	Design and Control of a Piezoelectrically Actuated Fast Tool Servo for Diamond Turning of Microstructured Surfaces. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 6688-6697	8.9	21
287	A rapid method for grain growth of Ti6Al4V alloy and its machinability. *International Journal of Advanced Manufacturing Technology*, **2019**, 104, 2347-2361	3.2	
286	An investigation of mechanical-thermal coupling treatment on material properties, surface roughness, and cutting force of Inconel 718. *International Journal of Advanced Manufacturing Technology*, **2019**, 105, 1917-1931	3.2	4
285	Investigation on the enhanced maximum strain rate sensitivity (m) superplasticity of Mg-9Li-1Al alloy by a two-step deformation method. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 764, 138219	5.3	2
284	Theoretical and Experimental Investigations of Tool Tip Vibration in Single Point Diamond Turning of Titanium Alloys. *Micromachines*, **2019**, 10,	3.3	3
283	Reduction of Minimum Cutting Thickness of Titanium Alloys in Micro Cutting by a Magnetic Field Assistance. *IEEE Access*, **2019**, 7, 152034-152041	3.5	2
282	Steady tool wear and its influence on tool geometry in ultra-precision fly cutting of CuZn30. *International Journal of Advanced Manufacturing Technology*, **2019**, 101, 2653-2662	3.2	4
281	An analytical force model for ultra-precision diamond sculpturing of micro-grooves with textured surfaces. *International Journal of Mechanical Sciences*, **2019**, 160, 129-139	5.5	9
280	Low Frequency Sound Absorption by Optimal Combination Structure of Porous Metal and Microperforated Panel. *Applied Sciences (Switzerland)*, **2019**, 9, 1507	2.6	20
279	Advances in ultra-precision machining of micro-structured functional surfaces and their typical applications. *International Journal of Machine Tools and Manufacture*, **2019**, 142, 16-41	9.4	81
278	Tuned diamond turning of micro-structured surfaces on brittle materials for the improvement of machining efficiency. *CIRP Annals - Manufacturing Technology*, **2019**, 68, 559-562	4.9	12
277	Effects of grains and twins on deformation of commercial pure titanium in ultraprecision diamond turning. *Journal of Materials Processing Technology*, **2019**, 271, 10-22	5.3	4
276	Serrated Chips Formation in Micro Orthogonal Cutting of Ti6Al4V Alloys with Equiaxial and Martensitic Microstructures. *Micromachines*, **2019**, 10,	3.3	3

275	Control of the ductile and brittle behavior of titanium alloys in diamond cutting by applying a magnetic field. *Scientific Reports*, **2019**, 9, 4056	4.9	2
274	Reduction of tool tip vibration in single-point diamond turning using an eddy current damping effect. *International Journal of Advanced Manufacturing Technology*, **2019**, 103, 1799-1809	3.2	6
273	Effects of magnetic field on microstructures and mechanical properties of titanium alloys in ultra-precision diamond turning. *Materials Research Express*, **2019**, 6, 056553	1.7	3
272	Effects of binder concentration on the nanometric surface characteristics of WC-Co materials in ultra-precision grinding. *International Journal of Refractory Metals and Hard Materials*, **2019**, 85, 105048	4.1	6
271	Feasibility investigation on ductile machining of single-crystal silicon for deep micro-structures by ultra-precision fly cutting. *Journal of Manufacturing Processes*, **2019**, 45, 176-187	5	6
270	Microwave formation mechanisms in surface generation of ultra-precision machining. *International Journal of Advanced Manufacturing Technology*, **2019**, 104, 1239-1244	3.2	2
269	Effects of cutting angles on deformation of single crystal silicon in plunge cutting along <1 0 0> direction. *Materials Letters*, **2019**, 253, 234-237	3.3	3
268	Flexible fabrication of micro-optics arrays with high-aspect-ratio by an offset-tool-servo diamond machining system. *Optics Express*, **2019**, 27, 9631-9646	3.3	7
267	Microstructural effects of Ti6Al4V alloys modified by electropulsing treatment on ultraprecision diamond turning. *Journal of Manufacturing Processes*, **2019**, 39, 58-68	5	10
266	Study on Influence of Ultrasonic Vibration on the Ultra-Precision Turning of Ti6Al4V Alloy Based on Simulation and Experiment. *IEEE Access*, **2019**, 7, 33640-33651	3.5	12
265	Cutting forces in fast-/slow tool servo diamond turning of micro-structured surfaces. *International Journal of Machine Tools and Manufacture*, **2019**, 136, 62-75	9.4	48
264	Role of Si in the Surface Damage Mechanism of RB-SiC/Si Under Mechanical Loading. *Journal of Materials Engineering and Performance*, **2019**, 28, 254-262	1.6	1
263	Cutting Mechanism and Surface Formation of Ultra-Precision Raster Fly Cutting. *Springer Tracts in Mechanical Engineering*, **2019**, 103-127	0.3	
262	An investigation in the ultra-precision fly cutting of freeform surfaces on brittle materials with high machining efficiency and low tool wear. *International Journal of Advanced Manufacturing Technology*, **2019**, 101, 1583-1593	3.2	9
261	Tool interference at workpiece centre in single-point diamond turning. *International Journal of Mechanical Sciences*, **2019**, 151, 1-12	5.5	10
260	Modulated diamond cutting for the generation of complicated micro/nanofluidic channels. *Precision Engineering*, **2019**, 56, 136-142	2.9	6
259	Optimal design and experimental validation of sound absorbing multilayer microperforated panel with constraint conditions. *Applied Acoustics*, **2019**, 146, 334-344	3.1	25
258	Diamond turning of micro-lens array on the roller featuring high aspect ratio. *International Journal of Advanced Manufacturing Technology*, **2018**, 96, 2463-2469	3.2	6

257	Ductile and brittle transition behavior of titanium alloys in ultra-precision machining. *Scientific Reports*, **2018**, 8, 3934	4.9	10
256	Mechanical characteristics of hydrogen-implanted crystalline silicon after post-implantation annealing. *Vacuum*, **2018**, 152, 40-46	3.7	3
255	Optimum Design of a Piezo-Actuated Triaxial Compliant Mechanism for Nanocutting. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 6362-6371	8.9	38
254	Identification of the critical depth-of-cut through a 2D image of the cutting region resulting from taper cutting of brittle materials. *Measurement Science and Technology*, **2018**, 29, 055003	2	5
253	External force estimation of a piezo-actuated compliant mechanism based on a fractional order hysteresis model. *Mechanical Systems and Signal Processing*, **2018**, 110, 296-306	7.8	17
252	Development and Repetitive-Compensated PID Control of a Nanopositioning Stage With Large-Stroke and Decoupling Property. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 3995-4005	8.9	62
251	Theoretical and experimental investigation into non-uniformity of surface generation in micro-milling. *International Journal of Mechanical Sciences*, **2018**, 140, 313-324	5.5	24
250	Effects of cutting speed on phase changes in ultra-precision raster milling of Zn□Al alloy. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2018**, 232, 31-41	1.3	2
249	Fast dynamic hysteresis modeling using a regularized online sequential extreme learning machine with forgetting property. *International Journal of Advanced Manufacturing Technology*, **2018**, 94, 3473-3484	3.2	3
248	A systematic investigation on the diamond wear mechanism during the dry scratching of WC/Co. *International Journal of Refractory Metals and Hard Materials*, **2018**, 70, 184-190	4.1	11
247	Design and control of a new 3-PUU fast tool servo for complex microstructure machining. *International Journal of Advanced Manufacturing Technology*, **2018**, 94, 3503-3517	3.2	12
246	Precision machining of □water-drop□surface by single point diamond grinding. *Precision Engineering*, **2018**, 51, 190-197	2.9	6
245	A novel ductile machining model of single-crystal silicon for freeform surfaces with large azimuthal height variation by ultra-precision fly cutting. *International Journal of Machine Tools and Manufacture*, **2018**, 135, 1-11	9.4	16
244	An investigation of resolved shear stress on activation of slip systems during ultraprecision rotary cutting of local anisotropic Ti-6Al-4V alloy: Models and experiments. *International Journal of Machine Tools and Manufacture*, **2018**, 134, 69-78	9.4	13
243	A Study of Mechanics in Brittle?Ductile Cutting Mode Transition. *Micromachines*, **2018**, 9,	3.3	18
242	Effect of Machining Parameters and Tool Wear on Surface Uniformity in Micro-Milling. *Micromachines*, **2018**, 9,	3.3	12
241	Sustainable manufacturing of ultra-precision machining of titanium alloys using a magnetic field and its sustainability assessment. *Sustainable Materials and Technologies*, **2018**, 16, 38-46	5.3	17
240	A theoretical and experimental study of spindle imbalance induced forced vibration and its effect on surface generation in diamond turning. *International Journal of Machine Tools and Manufacture*, **2018**, 133, 61-71	9.4	25

239	Efficient fabrication of gradient nanostructure layer on surface of commercial pure copper by coupling electric pulse and ultrasonics treatment. *Journal of Alloys and Compounds*, **2018**, 764, 51-61	5.7	13
238	One-step generation of hybrid micro-optics with high-frequency diffractive structures on infrared materials by ultra-precision side milling. *Optics Express*, **2018**, 26, 28161-28177	3.3	16
237	Surface damage mechanism of monocrystalline silicon during single point diamond grinding. *Wear*, **2018**, 396-397, 48-55	3.5	23
236	Active drag reduction of a high-drag Ahmed body based on steady blowing. *Journal of Fluid Mechanics*, **2018**, 856, 351-396	3.7	22
235	High Dynamic Control of a Flexure Fast Tool Servo Using On-line Sequential Extreme Learning Machine **2018**,		1
234	Cutting properties of deposited amorphous silicon in ultra-precision machining. *Journal of Micromechanics and Microengineering*, **2018**, 28, 095013	2	
233	Spindle vibration influencing form error in ultra-precision diamond machining. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2017**, 231, 3144-3151	1.3	6
232	Diamond tool wear in ultra-precision machining. *International Journal of Advanced Manufacturing Technology*, **2017**, 88, 613-641	3.2	49
231	Diamond wheel wear mechanism and its impact on the surface generation in parallel diamond grinding of RB-SiC/Si. *Diamond and Related Materials*, **2017**, 74, 16-23	3.5	22
230	Suppression of nanoindentation-induced phase transformation in crystalline silicon implanted with hydrogen. *Electronic Materials Letters*, **2017**, 13, 393-397	2.9	1
229	Surface Damage Mechanism of Monocrystalline Si Under Mechanical Loading. *Journal of Electronic Materials*, **2017**, 46, 1862-1868	1.9	3
228	Reduction of material swelling and recovery of titanium alloys in diamond cutting by magnetic field assistance. *Journal of Alloys and Compounds*, **2017**, 722, 525-531	5.7	25
227	Design, Analysis, and Realization of a Novel Piezoelectrically Actuated Rotary Spatial Vibration System for Micro-/Nanomachining. *IEEE/ASME Transactions on Mechatronics*, **2017**, 22, 1227-1237	5.5	38
226	Application of X- ray diffraction to study the grinding induced surface damage mechanism of WC/Co. *International Journal of Refractory Metals and Hard Materials*, **2017**, 64, 205-209	4.1	2
225	An application of eddy current damping effect on single point diamond turning of titanium alloys. *Journal Physics D: Applied Physics*, **2017**, 50, 435002	3	9
224	Tool life enhancement in dry diamond turning of titanium alloys using an eddy current damping and a magnetic field for sustainable manufacturing. *Journal of Cleaner Production*, **2017**, 168, 929-939	10.3	31
223	Nanoindentation of silicon implanted with hydrogen: effect of implantation dose on silicon's mechanical properties and nanoindentation-induced phase transformation. *Materials Research Express*, **2017**, 4, 075013	1.7	3
222	Relation between tool wear and workpiece modal vibration in ultra-precision raster fly cutting. *International Journal of Advanced Manufacturing Technology*, **2017**, 93, 3505-3515	3.2	2

221	Deformation-induced phase changes of Zn-Al alloy during ultra-precision raster milling. *International Journal of Advanced Manufacturing Technology*, **2017**, 88, 1755-1761	3.2	
220	Feasibility study of the novel quasi-elliptical tool servo for vibration suppression in the turning of micro-lens arrays. *International Journal of Machine Tools and Manufacture*, **2017**, 122, 98-105	9.4	20
219	Modelling and prediction of the effect of cutting strategy on surface generation in ultra-precision raster milling. *International Journal of Computer Integrated Manufacturing*, **2017**, 30, 895-909	4.3	1
218	A large-stroke flexure fast tool servo with new displacement amplifier **2017**,		6
217	Relationships of tool wear characteristics to cutting mechanics, chip formation, and surface quality in ultra-precision fly cutting. *International Journal of Advanced Manufacturing Technology*, **2016**, 83, 133-144	3.2	28
216	Virtual spindle based tool servo diamond turning of discontinuously structured microoptics arrays. *CIRP Annals - Manufacturing Technology*, **2016**, 65, 475-478	4.9	19
215	A Novel Tool Wear Measurement Method in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2016**, 679, 123-127	0.4	1
214	A further study of wheel normal grinding of hemisphere couples on TiC-based cermet. *International Journal of Advanced Manufacturing Technology*, **2016**, 87, 2593-2602	3.2	6
213	Characteristics of phase changes induced by ultra-precision raster milling at the surface layer of Zn-Al alloy. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2016**, 230, 1480-1488	2.4	1
212	Case study of surface micro-waves in ultra-precision raster fly cutting. *Precision Engineering*, **2016**, 46, 393-398	2.9	5
211	Calibration of a small size hexapod machine tool using coordinate measuring machine. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, **2016**, 230, 183-197	1.5	4
210	Effects of electropulsing treatment on material properties and ultra-precision machining of titanium alloy. *International Journal of Advanced Manufacturing Technology*, **2016**, 82, 2029-2036	3.2	16
209	An in-process tool wear evaluation approach for ultra-precision fly cutting. *International Journal of Advanced Manufacturing Technology*, **2016**, 86, 169-177	3.2	1
208	Surface generation mechanism of WC/Co and RB-SiC/Si composites under high spindle speed grinding (HSSG). *International Journal of Refractory Metals and Hard Materials*, **2016**, 56, 123-131	4.1	12
207	Wetting characteristics of bare micro-patterned cyclic olefin copolymer surfaces fabricated by ultra-precision raster milling. *RSC Advances*, **2016**, 6, 1562-1570	3.7	7
206	A novel diamond micro-/nano-machining process for the generation of hierarchical micro-/nano-structures. *Journal of Micromechanics and Microengineering*, **2016**, 26, 035009	2	15
205	Surface damage mechanism of WC/Co and RB-SiC/Si composites under high spindle speed grinding (HSSG). *Materials and Design*, **2016**, 92, 378-386	8.1	16
204	A review of fly cutting applied to surface generation in ultra-precision machining. *International Journal of Machine Tools and Manufacture*, **2016**, 103, 13-27	9.4	73

203	Rotary spatial vibration-assisted diamond cutting of brittle materials. *Precision Engineering*, **2016**, 44, 211-219	2.9	31
202	Micro-cutting of silicon implanted with hydrogen and post-implantation thermal treatment. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	8
201	High-Throughput Generation of Hierarchical Micro/Nanostructures by Spatial Vibration-Assisted Diamond Cutting. *Advanced Materials Interfaces*, **2016**, 3, 1500477	4.6	6
200	Characterization of Spatial Parasitic Motions of Compliant Mechanisms Induced by Manufacturing Errors. *Journal of Mechanisms and Robotics*, **2016**, 8,	2.2	6
199	Redundantly piezo-actuated XY□Z compliant mechanism for nano-positioning featuring simple kinematics, bi-directional motion and enlarged workspace. *Smart Materials and Structures*, **2016**, 25, 125002	3.4	17
198	Recrystallization of amorphized Si during micro-grinding of RB-SiC/Si composites. *Materials Letters*, **2016**, 172, 48-51	3.3	4
197	Effects of binder addition on the surface generation mechanism of WC/Co during high spindle speed grinding (HSSG). *International Journal of Refractory Metals and Hard Materials*, **2016**, 59, 32-39	4.1	11
196	Effects of Axial Spindle Vibration on Surface Generation in Ultra-Precision Diamond Turning. *Key Engineering Materials*, **2016**, 679, 67-71	0.4	
195	A new representation with probability distribution for nanometric surface roughness in ultra-precision machining. *Precision Engineering*, **2016**, 45, 445-449	2.9	3
194	Investigation on the maximum strain rate sensitivity (m) superplastic deformation of Mg-Li based alloy. *Materials and Design*, **2016**, 112, 151-159	8.1	20
193	Evaluation for tool flank wear and its influences on surface roughness in ultra-precision raster fly cutting. *International Journal of Mechanical Sciences*, **2016**, 118, 125-134	5.5	14
192	A novel surface quality evaluation method in ultra-precision raster milling using cutting chips. *Journal of Materials Processing Technology*, **2015**, 219, 328-338	5.3	10
191	Novel end-fly-cutting-servo system for deterministic generation of hierarchical micro□nanostructures. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 133-136	4.9	16
190	Impact of material microstructure and diamond grit wear on surface finish in micro-grinding of RB-SiC/Si and WC/Co carbides. *International Journal of Refractory Metals and Hard Materials*, **2015**, 51, 258-263	4.1	13
189	Effects of non-amorphizing hydrogen ion implantation on anisotropy in micro cutting of silicon. *Journal of Materials Processing Technology*, **2015**, 225, 439-450	5.3	35
188	Effect of cutting parameters on heat generation in ultra-precision milling of aluminum alloy 6061. *International Journal of Advanced Manufacturing Technology*, **2015**, 80, 1265-1275	3.2	18
187	Evolutionary diamond turning of optics for error correction covering a wide spatial spectrum. *Optical Engineering*, **2015**, 54, 015103	1.1	5
186	Theoretical and experimental investigation on the novel end-fly-cutting-servo diamond machining of hierarchical micro-nanostructures. *International Journal of Machine Tools and Manufacture*, **2015**, 94, 15-25	9.4	52

185	Adaptive tool servo diamond turning for enhancing machining efficiency and surface quality of freeform optics. *Optics Express*, **2015**, 23, 20234-48	3.3	32
184	Large-scale fabrication of micro-lens array by novel end-fly-cutting-servo diamond machining. *Optics Express*, **2015**, 23, 20593-604	3.3	55
183	XPS and TEM study of deposited and Ru–Si solid state reaction grown ruthenium silicides on silicon. *Materials Science in Semiconductor Processing*, **2015**, 40, 817-821	4.3	4
182	Active control of residual tool marks for freeform optics functionalization by novel biaxial servo assisted fly cutting. *Applied Optics*, **2015**, 54, 7656-62	0.2	10
181	The mechanism of ductile deformation in ductile regime machining of 6H SiC. *Computational Materials Science*, **2015**, 98, 178-188	3.2	57
180	Cutting Characteristics of Zr-Based Bulk Metallic Glass. *Journal of Materials Science and Technology*, **2015**, 31, 153-158	9.1	29
179	Numerical and experimental analysis of heat transfer in turbulent flow channels with two-dimensional ribs. *Applied Thermal Engineering*, **2015**, 75, 623-634	5.8	24
178	Unsteady flow structures around a high-drag Ahmed body. *Journal of Fluid Mechanics*, **2015**, 777, 291-326	3.7	32
177	Optimal design of broadband antireflective subwavelength gratings for solar applications. *Optik*, **2015**, 126, 2626-2628	2.5	1
176	Amorphization and C segregation based surface generation of Reaction-Bonded SiC/Si composites under micro-grinding. *International Journal of Machine Tools and Manufacture*, **2015**, 95, 78-81	9.4	21
175	An investigation on surface finishing in ultra-precision raster milling of aluminum alloy 6061. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2015**, 229, 1289-1301	2.4	14
174	A study of chip formation in ductile-regime machining of 6H silicon carbide by molecular dynamics. *International Journal of Nanomanufacturing*, **2015**, 11, 64	0.7	6
173	A review of surface roughness generation in ultra-precision machining. *International Journal of Machine Tools and Manufacture*, **2015**, 91, 76-95	9.4	162
172	Serrated chip formation and their adiabatic analysis by using the constitutive model of titanium alloy in high speed cutting. *Journal of Alloys and Compounds*, **2015**, 629, 368-373	5.7	37
171	Molecular dynamics modelling of brittle–ductile cutting mode transition: Case study on silicon carbide. *International Journal of Machine Tools and Manufacture*, **2015**, 88, 214-222	9.4	79
170	A review of machine-tool vibration and its influence upon surface generation in ultra-precision machining. *International Journal of Machine Tools and Manufacture*, **2015**, 91, 34-42	9.4	105
169	Novel tool wear monitoring method in ultra-precision raster milling using cutting chips. *Precision Engineering*, **2014**, 38, 555-560	2.9	28
168	Improvement on load performance of externally pressurized gas journal bearings by opening pressure-equalizing grooves. *Tribology International*, **2014**, 73, 156-166	4.9	49

167	Study of cutting force in ultra-precision raster milling of V-groove. *International Journal of Advanced Manufacturing Technology*, **2014**, 75, 967-978	3.2	10
166	A theoretical and experimental investigation of design and slow tool servo machining of freeform progressive addition lenses (PALs) for optometric applications. *International Journal of Advanced Manufacturing Technology*, **2014**, 72, 33-40	3.2	10
165	Mesoplasticity approach to studies of the cutting mechanism in ultra-precision machining. *Chinese Journal of Mechanical Engineering (English Edition)*, **2014**, 27, 219-228	2.5	2
164	Study of the workspace of a class of universal joints. *Mechanism and Machine Theory*, **2014**, 73, 244-258	4	16
163	A novel spindle inclination error identification and compensation method in ultra-precision raster milling. *International Journal of Machine Tools and Manufacture*, **2014**, 78, 8-17	9.4	19
162	The relation between chip morphology and tool wear in ultra-precision raster milling. *International Journal of Machine Tools and Manufacture*, **2014**, 80-81, 11-17	9.4	29
161	A Study of Cutting Strategy in Single-Point Diamond Turning of Micro V-Groove Patterns on Precision Roller Drums. *Key Engineering Materials*, **2014**, 625, 742-747	0.4	0
160	Cutting Force Evolution and its Power Spectrum Analysis with Tool Wear Progress in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2014**, 625, 20-25	0.4	
159	Diamond tool wear detection method using cutting force and its power spectrum analysis in ultra-precision fly cutting **2014**,		2
158	Effect of assembling errors on the diffraction efficiency for multilayer diffractive optical elements. *Applied Optics*, **2014**, 53, 7341-7	0.2	6
157	A study of the fabrication of v-groove structure in ultra-precision milling. *International Journal of Computer Integrated Manufacturing*, **2014**, 27, 986-996	4.3	15
156	An integrated optimization of cutting parameters and tool path generation in ultraprecision raster milling. *International Journal of Advanced Manufacturing Technology*, **2014**, 75, 1711-1721	3.2	10
155	Analysis of materials selected for multilayer diffractive optical elements. *Optik*, **2014**, 125, 3245-3248	2.5	4
154	Micro-structural changes of Zn□Al alloy influencing micro-topographical surface in micro-cutting. *International Journal of Advanced Manufacturing Technology*, **2014**, 72, 9-15	3.2	18
153	Strouhal Numbers of Unsteady Flow Structures Around a Simplified Car Model. *Lecture Notes in Mechanical Engineering*, **2014**, 179-184	0.4	1
152	An investigation into material-induced surface roughness in ultra-precision milling. *International Journal of Advanced Manufacturing Technology*, **2013**, 68, 607-616	3.2	38
151	Enhancement of the machinability of silicon by hydrogen ion implantation for ultra-precision micro-cutting. *International Journal of Machine Tools and Manufacture*, **2013**, 74, 50-55	9.4	34
150	Finite element modelling of shear angle and cutting force variation induced by material anisotropy in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2013**, 75, 82-86	9.4	30

149	A theoretical and experimental investigation into multimode tool vibration with surface generation in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2013**, 72, 32-36	9.4	29
148	A theoretical and experimental investigation into five-DOF dynamic characteristics of an aerostatic bearing spindle in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2013**, 71, 1-10	9.4	54
147	Modeling and characterization of generation of 3D micro-structured surfaces with self-cleaning and optical functions. *Optik*, **2013**, 124, 2848-2853	2.5	13
146	The effects of spindle vibration on surface generation in ultra-precision raster milling. *International Journal of Machine Tools and Manufacture*, **2013**, 71, 52-56	9.4	39
145	A theoretical and experimental study of surface generation under spindle vibration in ultra-precision raster milling. *International Journal of Machine Tools and Manufacture*, **2013**, 75, 36-45	9.4	32
144	Investigation on the influence of tool-tip vibration on surface roughness and its representative measurement in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2013**, 69, 20-29	9.4	55
143	Characterization of Cutting-Induced Heat Generation in Ultra-Precision Milling of Aluminium Alloy 6061. *Key Engineering Materials*, **2013**, 552, 201-206	0.4	
142	On-Machine Measurementand Characterization of V-Groove Structure Pattern on Precision Rollers. *Key Engineering Materials*, **2013**, 552, 567-574	0.4	4
141	Lighting Design of Extended Light Source. *Key Engineering Materials*, **2013**, 552, 103-107	0.4	2
140	N-channel polysilicon thin film transistors as gamma-ray detectors. *Measurement Science and Technology*, **2013**, 24, 105103	2	5
139	Partial Oxidation of Thin Film Ruthenium in MOS Structure-Chemical, Compositional and Electrical Properties. *ECS Solid State Letters*, **2013**, 2, P42-P43		3
138	A Study of Effect of Cutting Strategy on Surface Generation in Ultra-Precision Machining of Micro-Structured Pattern Rollers. *Key Engineering Materials*, **2013**, 552, 575-585	0.4	3
137	Static Electropulsing-Induced Microstructural Changes and Their Effect on the Ultra-Precision Machining of Cold-Rolled AZ91 Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 1341-1346	2.3	23
136	Effect of Workpiece Material on Surface Roughness in Ultraprecision Raster Milling. *Materials and Manufacturing Processes*, **2012**, 27, 1022-1028	4.1	19
135	Dynamic characteristics of an aerostatic bearing spindle and its influence on surface topography in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2012**, 62, 1-12	9.4	65
134	Novel auto-regressive measurement of diamond tool wear in ultra-precision raster milling. *International Journal of Precision Engineering and Manufacturing*, **2012**, 13, 1661-1670	1.7	8
133	Generalized form characterization of ultra-precision freeform surfaces. *CIRP Annals - Manufacturing Technology*, **2012**, 61, 527-530	4.9	10
132	Cutting Characteristics of Lanthanum Base Metallic Glass in Single Point Diamond Turning. *Key Engineering Materials*, **2012**, 516, 651-655	0.4	1

131	An experimental investigation of surface generation using an integrated ultra-precision polishing process and different polishing trajectories. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2012**, 226, 203-220	2.4	12
130	Nonlinear Dynamics of Tool Vibration in Micro-Cutting. *Key Engineering Materials*, **2012**, 516, 645-650	0.4	
129	Design, fabrication and characterization of three-dimensional patterned microstructured surfaces with self-cleaning properties from hydrophilic materials. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2012**, 226, 1536-1549	2.4	6
128	Influence of Spinodal Decomposition on the Plastic Behavior of Dynamic Electropulsing Treated ZA22 Alloy. *Materials Transactions*, **2012**, 53, 1363-1370	1.3	2
127	Electropulsing-induced phase transformations and their effects on the single point diamond turning of a tempered alloy AZ91. *International Journal of Materials Research*, **2012**, 103, 1205-1209	0.5	5
126	Dynamic Electropulsing Induced Phase Transformations and Their Effects on Single Point Diamond Turning of AZ91 Alloy. *Journal of Surface Engineered Materials and Advanced Technology*, **2012**, 02, 16-21	0.2	7
125	Applications of Ultra-Precision Free-Form Machining Technology to Advanced Optics. *Materials Science Forum*, **2011**, 697-698, 834-837	0.4	1
124	An investigation on the effect of ultra-precision machined patterns in wetting transition. *International Journal of Nanomanufacturing*, **2011**, 7, 245	0.7	1
123	Finite element modelling of squeezing effect in ultra precision diamond turning. *Materials Research Innovations*, **2011**, 15, s175-s178	1.9	1
122	An investigation on surface generation in ultra-precision raster milling. *International Journal of Nanomanufacturing*, **2011**, 7, 298	0.7	
121	Use of EBSD to study electropulsing induced reverse phase transformations in a Zn-Al alloy (ZA22). *Journal of Microscopy*, **2011**, 242, 62-9	1.9	7
120	Effect of Static Electropulsing on Microstructure and Elongation of a Zn-Al Alloy (ZA22). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 1933-1940	2.3	27
119	Characterization of freeform optics in automotive lighting systems using an Optical Geometrical Feature Based Method. *Optik*, **2011**, 122, 358-363	2.5	12
118	Dynamic modelling of shear band formation and tool-tip vibration in ultra-precision diamond turning. *International Journal of Machine Tools and Manufacture*, **2011**, 51, 512-519	9.4	29
117	Modelling and simulation of structure surface generation using computer controlled ultra-precision polishing. *Precision Engineering*, **2011**, 35, 574-590	2.9	87
116	Static electropulsing-induced phase transformations of a cold-deformed ZA27 alloy. *Journal of Materials Research*, **2011**, 26, 1696-1701	2.5	4
115	A study on tool wear in ultra-precision diamond turning with finite element modelling. *International Journal of Nanomanufacturing*, **2011**, 7, 500	0.7	1
114	A Study of Wear Characteristics of Superpolished Orthopaedic Implant Materials Using Ultra-Precision Polishing. *Key Engineering Materials*, **2010**, 447-448, 111-115	0.4	

113	Analysis of surface generation in the ultraprecision polishing of freeform surfaces. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2010**, 224, 59-73	2.4	32
112	Analysis of surface generation in ultra-precision machining with a fast tool servo. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2010**, 224, 1351-1367	2.4	20
111	A study of the relevant effects on the maximum residual stress in the precision injection moulding of microlens arrays. *Journal of Micromechanics and Microengineering*, **2010**, 20, 035033	2	12
110	An Integrated Manufacturing System for the Design, Fabrication, and Measurement of Ultra-Precision Freeform Optics. *IEEE Transactions on Electronics Packaging Manufacturing*, **2010**, 33, 244-254		4
109	Dynamic Electropulsing Induced Phase Transformations in a Furnace Cooled Zn-Al Based Alloy (ZA22). *Materials Transactions*, **2010**, 51, 1997-2004	1.3	2
108	A study of the cutting-induced heating effect on the machined surface in ultra-precision raster milling of 6061 Al alloy. *International Journal of Advanced Manufacturing Technology*, **2010**, 51, 69-78	3.2	24
107	Optical design of a freeform TIR lens for LED streetlight. *Optik*, **2010**, 121, 1761-1765	2.5	44
106	Ultra-precision raster milling-induced phase decomposition and plastic deformation at the surface of a Zn–Al-based alloy. *Scripta Materialia*, **2010**, 62, 101-104	5.6	15
105	A study of regularly spaced shear bands and morphology of serrated chip formation in microcutting process. *Scripta Materialia*, **2010**, 63, 227-230	5.6	24
104	Characterization of surface generation of optical microstructures using a pattern and feature parametric analysis method. *Precision Engineering*, **2010**, 34, 755-766	2.9	19
103	Elastic strain induced shear bands in the microcutting process. *International Journal of Machine Tools and Manufacture*, **2010**, 50, 9-18	9.4	27
102	A theoretical and experimental investigation of the tool-tip vibration and its influence upon surface generation in single-point diamond turning. *International Journal of Machine Tools and Manufacture*, **2010**, 50, 241-252	9.4	90
101	Electropulsing-induced phase transformations in a Zn-Al-based alloy. *Journal of Materials Research*, **2009**, 24, 2661-2669	2.5	39
100	Measuring ultra-precision freeform surfaces using a hybrid fitting and matching method. *Measurement Science and Technology*, **2009**, 20, 105103	2	9
99	Microstructural characterization of an ultra-precision-machined surface of a Zn–Al alloy. *Journal of Micromechanics and Microengineering*, **2009**, 19, 054005	2	5
98	A new method to test the photometric characteristics of lamps for motor vehicles. *Optik*, **2009**, 120, 549-552	2.5	4
97	Wear characteristics of diamond tool in ultraprecision raster milling. *International Journal of Advanced Manufacturing Technology*, **2009**, 44, 638-647	3.2	13
96	Effects of current density on electropulsing-induced phase transformations in a Zn–Al based alloy. *Applied Physics A: Materials Science and Processing*, **2009**, 96, 939-944	2.6	22

95	Effects of dynamic electropulsing on microstructure and elongation of a ZnAl alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 501, 125-132	5.3	110
94	Numerical simulation of residual stress and birefringence in the precision injection molding of plastic microlens arrays. *International Communications in Heat and Mass Transfer*, **2009**, 36, 213-219	5.8	20
93	Birefringence techniques for the characterization of residual stresses in injection-moulded micro-lens arrays. *Polymer Testing*, **2009**, 28, 709-714	4.5	28
92	An investigation into surface generation in ultra-precision raster milling. *Journal of Materials Processing Technology*, **2009**, 209, 4178-4185	5.3	37
91	Material removal and micro-roughness in fluid-assisted smoothing of reaction-bonded silicon carbide surfaces. *Journal of Materials Processing Technology*, **2009**, 209, 4563-4567	5.3	16
90	Effects of Dynamic Electropulsing on Phase Transformation of a Zn-Al Based Alloy. *Materials Transactions*, **2009**, 50, 1105-1112	1.3	21
89	Effects of Current Density on Elongation of an Electropulsing Treated Zn-Al Based Alloy. *Materials Transactions*, **2009**, 50, 2772-2777	1.3	14
88	MaterialsInduced Vibration in Single Point Diamond Turning. *Springer Series in Advanced Manufacturing*, **2009**, 263-282	0.9	
87	FINITE ELEMENT MODELLING OF MICRO-CUTTING PROCESSES FROM CRYSTAL PLASTICITY. *International Journal of Modern Physics B*, **2008**, 22, 5943-5948	1.1	6
86	Microstructural changes at the ultra-precision machined surface of ZnAl based alloy. *International Journal of Materials Research*, **2008**, 99, 307-312	0.5	
85	Microstructural Changes at the Ultra-Precision Raster Milled Surface of Zn-Al Based Alloy. *Materials Transactions*, **2008**, 49, 698-703	1.3	5
84	Theoretical and experimental analysis of nano-surface generation in ultra-precision raster milling. *International Journal of Machine Tools and Manufacture*, **2008**, 48, 1090-1102	9.4	50
83	Effects of cutting depth on the surface microstructure of a ZnAl alloy during ultra-precision machining. *Applied Surface Science*, **2008**, 254, 1559-1564	6.7	9
82	A kinematics and experimental analysis of form error compensation in ultra-precision machining. *International Journal of Machine Tools and Manufacture*, **2008**, 48, 1408-1419	9.4	58
81	An integrated form characterization method for measuring ultra-precision freeform surfaces. *International Journal of Machine Tools and Manufacture*, **2007**, 47, 81-91	9.4	32
80	Influence of initial texture on formability of aluminum sheet metal by crystal plasticity FE simulation. *Journal of Materials Processing Technology*, **2007**, 192-193, 397-403	5.3	14
79	Use of EBSD to identify phases in interdendrite region of a cast Zn-Al-based alloy (ZA27). *Journal of Microscopy*, **2007**, 225, 170-4	1.9	4
78	A Framework of an Integrated Platform for Modelling and Measurement of Freeform Surface Generation in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2007**, 339, 422-426	0.4	2

77	VSPDT: An Optimizer for Single Point Diamond Turning. *Key Engineering Materials*, **2007**, 339, 447-452	0.4	
76	Development of a virtual machining and inspection system for ultra-precision diamond turning. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2007**, 221, 1153-1174	2.4	7
75	Measuring optical freeform surfaces using a coupled reference data method. *Measurement Science and Technology*, **2007**, 18, 2252-2260	2	16
74	Forming Limits Prediction of FCC Sheet Metal Adopting Crystal Plasticity. *Key Engineering Materials*, **2007**, 340-341, 179-186	0.4	
73	Research on Surface Roughness Prediction Model Based on Genetic Algorithm for Optical Ultra-Precision Machining. *Applied Mechanics and Materials*, **2007**, 10-12, 369-373	0.3	
72	Research of Surface Generation Mechanisms in Single-Point Diamond Turning. *Key Engineering Materials*, **2007**, 364-366, 1296-1301	0.4	
71	Calibration of Texture-Adjusted Strain-Rate Potential and its Application. *Key Engineering Materials*, **2007**, 340-341, 829-834	0.4	
70	Fabrication of Freeform Optics in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2007**, 339, 412-416	0.4	0
69	A Study of Measurement Technology for Ultra-Precision Freeform Surfaces. *Key Engineering Materials*, **2007**, 339, 417-421	0.4	
68	Multi-Scale Modeling of Surface Topography in Single-Point Diamond Turning. *Key Engineering Materials*, **2007**, 340-341, 1009-1016	0.4	1
67	A Framework of a Model-Based Simulation System for Prediction of Surface Generation in Fast Tool Servo Machining of Optical Microstructures. *Key Engineering Materials*, **2007**, 339, 407-411	0.4	2
66	Development of a Dynamic Model for Ultra-Precision Raster Milling. *Key Engineering Materials*, **2007**, 364-366, 58-63	0.4	2
65	A Study of Micro V-Groove Fabrication in Ultra-Precision Freeform Machining. *Key Engineering Materials*, **2007**, 339, 286-290	0.4	6
64	An Empirical Approach for Identification of Sources of Machining Errors in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2007**, 364-366, 986-991	0.4	3
63	A Study of Factors Affecting Surface Quality in Ultra-Precision Raster Milling. *Key Engineering Materials*, **2007**, 339, 400-406	0.4	9
62	Microstructural changes inside the lamellar structures of alloy ZA27. *Materials Characterization*, **2006**, 57, 326-332	3.9	7
61	Measuring ultra-precision freeform surfaces using a robust form characterization method. *Measurement Science and Technology*, **2006**, 17, 488-494	2	19
60	A Study of a Digital Manufacturing Procedure for Freeform Optics. *Materials Science Forum*, **2006**, 532-533, 693-696	0.4	1

59	Tool path generation for machining of optical freeform surfaces by an ultra-precision multiaxis machine tool. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2006**, 220, 2021-2026	2.4	4
58	Study on the Tool Path Generation of an Automotive Headlamp Reflector in Ultra-Precision Raster Milling. *Materials Science Forum*, **2006**, 532-533, 673-676	0.4	1
57	Theoretical and experimental evaluation of surface quality for optical freeform surfaces. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2006**, 220, 1439-1448	2.4	2
56	The Effect of Up-Cutting and Down-Cutting Directions on Materials Swelling in Ultra-Precision Raster Milling. *Materials Science Forum*, **2006**, 532-533, 697-700	0.4	2
55	Surface Characterization in Diamond Turning of Highly Anisotropy Brittle Crystals: A Multi-Spectrum Analysis Approach. *Materials Science Forum*, **2006**, 532-533, 989-992	0.4	
54	The Solving Methods of Dwell Time or Pressure in CCOS for Optical Complex Surfaces. *Materials Science Forum*, **2006**, 532-533, 669-672	0.4	
53	Research on Software Error Compensation of Ultra-Precision Lathe. *Key Engineering Materials*, **2006** , 315-316, 602-606	0.4	1
52	Molecular Dynamics Simulation for Ultrafine Machining. *Materials and Manufacturing Processes*, **2006**, 21, 393-397	4.1	17
51	Modelling and simulation of freeform surface generation in ultra-precision raster milling. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2006**, 220, 1787-1801	2.4	33
50	An Investigation of Form Compensation in Fabricating Microlens Arrays by Ultra-Precision Fast-Tool-Servo Technology. *Materials Science Forum*, **2006**, 532-533, 689-692	0.4	4
49	Design and fabrication of freeform reflector for automotive headlamp **2006**,		3
48	Study of ultra-precision diamond turning of a microlens array with a fast tool servo system **2006**, 6149, 191		8
47	Ultra-precision machining induced phase decomposition at surface of ZnAl based alloy. *Applied Surface Science*, **2006**, 253, 2165-2170	6.7	3
46	A novel robust Gaussian filtering method for the characterization of surface generation in ultra-precision machining. *Precision Engineering*, **2006**, 30, 421-430	2.9	12
45	A study of materials swelling and recovery in single-point diamond turning of ductile materials. *Journal of Materials Processing Technology*, **2006**, 180, 210-215	5.3	66
44	A power spectrum analysis of effect of rolling texture on cutting forces in single-point diamond turning. *Journal of Materials Processing Technology*, **2006**, 180, 305-309	5.3	8
43	Characterisation of surface roughness for ultra-precision freeform surfaces. *Journal of Physics: Conference Series*, **2005**, 13, 32-35	0.3	
42	Computer simulation of single-point diamond turning using finite element method. *Journal of Materials Processing Technology*, **2005**, 167, 549-554	5.3	20

41	Ultra-precision machining induced micro-plastic deformation in ZnAl based alloy. *Journal of Materials Processing Technology*, **2005**, 167, 536-541	5.3	3
40	Structural evolution in films of alloy Zn70Al27Cu3 (ZA27). *Applied Surface Science*, **2005**, 242, 236-244	6.7	11
39	Workpiece representation for virtual turning. *International Journal of Advanced Manufacturing Technology*, **2005**, 25, 857-866	3.2	8
38	Optimization of Surface Finish in Ultra-precision Raster Milling(Ultra-precision machining). *Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21*, **2005** , 2005.3, 1019-1024		3
37	Anti-Vibration Characteristics of a Lateral Shear Interferometer for On-Machine Surface Measurement. *Key Engineering Materials*, **2005**, 295-296, 411-416	0.4	3
36	Model-based Simulation of Free form Surface Generation in Ultra-precision Raster Milling(Analytical advancement of machining process). *Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21*, **2005**, 2005.3, 1087-1092		
35	Effect of Cutting Parameters on Materials Swelling of Machined Surfaces in Single-point Diamond Turning(Ultra-precision machining). *Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21*, **2005**, 2005.3, 1051-1056		
34	Effect of Rolling Texture on the Anisotropy of Surface Roughness in the Single-Point Diamond Turning of Polycrystalline Aluminum(Ultra-precision machining). *Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21*, **2005**, 2005.3, 1025-1028		
33	Mesoplasticity and Its Applications in Micro-Scale Deformation Processing. *Key Engineering Materials*, **2004**, 274-276, 43-50	0.4	
32	Nanostructural evolution in films of alloy Zn90Al7Cu3. *Materials Characterization*, **2004**, 52, 217-224	3.9	4
31	On nanophase stability in eutectoid ZnAl based alloy films. *Applied Surface Science*, **2004**, 236, 106-113	6.7	6
30	Friction-induced fluctuation of cutting forces in the diamond turning of aluminium single crystals. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, **2003**, 217, 615-631	2.4	13
29	Ageing characteristics of cast Zn-Al based alloy (ZnAl7Cu3). *Journal of Materials Science*, **2003**, 38, 1945-1952	1.9	22
28	Effect of material anisotropy on shear angle prediction in metal cutting: mesoplasticity approach. *International Journal of Mechanical Sciences*, **2003**, 45, 1739-1749	5.5	31
27	Tensile deformation-induced phase transformation in cast ZnAl-based alloy (ZnAl7Cu3). *Materials Research Bulletin*, **2003**, 38, 1851-1858	5.1	12
26	A multi-perspective knowledge-based system for customer service management. *Expert Systems With Applications*, **2003**, 24, 457-470	7.8	52
25	Use of EBSD to study stress induced microstructural changes in ZnAl based alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 348, 6-14	5.3	12
24	A mesoplasticitiy analysis of cutting friction in ultra-precision machining. *Journal of Materials Processing Technology*, **2003**, 140, 292-297	5.3	10

23	Orientation changes of aluminium single crystals in ultra-precision diamond turning. *Journal of Materials Processing Technology*, **2003**, 140, 346-351	5.3	26
22	Effect of reinforcement in ultra-precision machining of Al6061/SiC metal matrix composites. *Scripta Materialia*, **2002**, 47, 77-82	5.6	61
21	Ultra-precision machining induced surface structural changes of ZnÂl alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 325, 497-502	5.3	12
20	A Microplasticity Analysis of Micro-Cutting Force Variation in Ultra-Precision Diamond Turning. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2002**, 124, 170-177	3.3	41
19	Anisotropy of surface roughness in diamond turning of brittle single crystals. *Materials and Manufacturing Processes*, **2002**, 17, 251-267	4.1	33
18	Deformation behaviour of aluminium single crystals in ultraprecision diamond turning. *Journal of Materials Processing Technology*, **2001**, 113, 296-300	5.3	17
17	A theoretical and experimental investigation of surface generation in diamond turning of an Al6061/SiCp metal matrix composite. *International Journal of Mechanical Sciences*, **2001**, 43, 2047-2068	5.5	59
16	Influence of material swelling on surface roughness in diamond turning of single crystals. *Materials Science and Technology*, **2001**, 17, 102-108	1.5	51
15	CHARACTERISTICS OF MICROCUTTING FORCE VARIATION IN ULTRAPRECISION DIAMOND TURNING. *Materials and Manufacturing Processes*, **2001**, 16, 177-193	4.1	14
14	Effect of crystallographic orientation in diamond turning of copper single crystals. *Scripta Materialia*, **2000**, 42, 937-945	5.6	61
13	An Investigation of Surface Roughness Formation in Ultra-Precision Machining of Al6061/SiCp Metal Matrix Composites. *Key Engineering Materials*, **2000**, 177-180, 375-380	0.4	2
12	Effect of Machining Velocity on the Crystallographic Textures in a Diamond Turned Aluminium Single Crystal. *Textures and Microstructures*, **1999**, 31, 249-261		7
11	Materials induced vibration in ultra-precision machining. *Journal of Materials Processing Technology*, **1999**, 89-90, 318-325	5.3	43
10	Deformation band formation in metal cutting. *Scripta Materialia*, **1999**, 40, 439-443	5.6	16
9	Ultraprecision diamond turning of aluminium single crystals. *Journal of Materials Processing Technology*, **1997**, 63, 157-162	5.3	78
8	Computer modelling of the effect of rolling schedule on the plastic anisotropy of cold-rolled aluminium sheets. *Journal of Materials Processing Technology*, **1995**, 48, 173-178	5.3	2
7	Recrystallization Textures of a Cross-Rolled Aluminum Alloy. *Materials Science Forum*, **1994**, 157-162, 1075-1080	0.4	
6	Deformation and recrystallization in cross-rolled Al-Cu precipitation alloys. *Journal of Materials Science*, **1994**, 29, 269-275	4.3	7

5	Analytical modelling of cutting forces in ultra-precision fly grooving considering effects of trans-scale chip thickness variation and material microstructure. *International Journal of Advanced Manufacturing Technology*,1	3.2	
4	Current status, challenges and opportunities of sustainable ultra-precision manufacturing. *Journal of Intelligent Manufacturing*,1	6.7	3
3	Hydrogen Ion Implantation Induced Cutting Behavior Variation in Plunge Cutting of the Monocrystalline Silicon. *Nanomanufacturing and Metrology*,1	3.4	2
2	Water droplet bouncing on a hierarchical superhydrophobic surface fabricated by hydrothermal synthesis and ultraprecision machining. *Journal of Adhesion Science and Technology*,1-15	2	
1	Low-Cost Volumetric 3D Printing of High-Precision Miniature Lenses in Seconds. *Advanced Optical Materials*,2200488	8.1	1