Frank Vollertsen

List of Publications by Year in Descending Order

248 papers	4,881 citations	34 h-index	62 g-index
260 ext. papers	5,505 ext. citations	2.6 avg, IF	5.96 L-index

#	Paper	IF	Citations
248	Time-Resolved Force Measurements to Determine Positioning Tolerances for Impulse-Based Indentations. *Lasers in Manufacturing and Materials Processing*, **2021**, 8, 216-235	2.1	0
247	Extension of the Process Window in Laser Chemical Machining by Temperature-Dependent Reduction of the Electrolyte Viscosity. *International Journal of Precision Engineering and Manufacturing*, **2021**, 22, 1461	1.7	
246	Picosecond-laser polishing of CVD-diamond coatings without graphite formation. *Materials Today: Proceedings*, **2021**, 40, 1-4	1.4	2
245	Understanding the Influence of Chemical and Thermal Loads on the Productivity for Processing 42CrMo4 Steel and Titanium via Laser-Induced Thermochemical Machining. *Procedia CIRP*, **2021**, 101, 202-205	1.8	1
244	Investigation on water as lubricant in combination with a structured tool surface in micro metal forming. *IOP Conference Series: Materials Science and Engineering*, **2020**, 967, 012005	0.4	1
243	Comparison of boiling bubble behavior during laser chemical machining under superatmospheric pressure. *Procedia CIRP*, **2020**, 94, 561-564	1.8	2
242	Mechanical Properties of High Strength Aluminum Alloy EN AW-7075 Additively Manufactured by Directed Energy Deposition. *Metals*, **2020**, 10, 579	2.3	5
241	Laser keyhole micro welding of aluminum foils to lap joints even with large gap sizes. *CIRP Annals - Manufacturing Technology*, **2020**, 69, 237-240	4.9	1
240	Investigations on the occurrence of different wetting regimes in laser brazing of zinc-coated steel sheets. *Welding in the World, Le Soudage Dans Le Monde*, **2020**, 64, 449-456	1.9	3
239	Tooling. *Lecture Notes in Production Engineering*, **2020**, 133-251	0	
238	Introduction to Collaborative Research Center Micro Cold Forming (SFB 747). *Lecture Notes in Production Engineering*, **2020**, 1-26	0	
237	Micro Forming Processes. *Lecture Notes in Production Engineering*, **2020**, 27-94	0	1
236	Additive manufacturing with the lightweight material aluminium alloy EN AW-7075. *Welding in the World, Le Soudage Dans Le Monde*, **2020**, 64, 429-436	1.9	4
235	Determination of a contact length dependent friction function in micro metal forming. *Journal of Materials Processing Technology*, **2020**, 286, 116831	5.3	1
234	Joining of dissimilar materials by laser induced shock waves. *Materialwissenschaft Und Werkstofftechnik*, **2019**, 50, 1006-1014	0.9	1
233	New approach to evaluate 3D laser printed parts in powder bed fusion-based additive manufacturing in-line within closed space. *Additive Manufacturing*, **2019**, 26, 161-165	6.1	22
232	High-speed X-ray investigation of melt dynamics during continuous-wave laser remelting of selective laser melted Co-Cr alloy. *CIRP Annals - Manufacturing Technology*, **2019**, 68, 229-232	4.9	20

231	Laser shock punching: principle and influencing factors. *Production Engineering*, **2019**, 13, 399-407	1.9	4
230	Rapid Material Characterization of Deep-Alloyed Steels by Shock Wave-Based Indentation Technique and Deep Rolling. *Nanomanufacturing and Metrology*, **2019**, 2, 56-64	3.4	4
229	Comparison of the fatigue strength between additively and conventionally fabricated tool steel 1.2344. *Additive Manufacturing*, **2019**, 27, 217-223	6.1	18
228	Joining by laser induced shock waves of aluminum and plastics **2019**,		1
227	Connection between shock wave induced indentations and hardness by means of neural networks **2019**,		3
226	Influence of Porosity in LBM Layers on the Quality of Laser Deep Alloying. *HTM - Journal of Heat Treatment and Materials*, **2019**, 74, 85-98	0.7	
225	Influence of filler wire oscillation on the seam texture in laser beam brazing **2019**, 359-368		2
224	Tribological Properties of Multi-Layer a-C:H:W/a-C:H PVD-Coatings Micro-Structured by Picosecond Laser Ablation. *Key Engineering Materials*, **2019**, 809, 439-444	0.4	3
223	Descriptors for High Throughput in Structural Materials Development. *High-Throughput*, **2019**, 8,	4.3	16
222	Impact of multi-focus beam shaping on the process stability. *Optics and Laser Technology*, **2019**, 112, 278-283	4.2	11
221	Friction and wear performance of different carbon coatings for use in dry aluminium forming processes. *Surface and Coatings Technology*, **2019**, 357, 1048-1059	4.4	11
220	Photoluminescence of silicon vacancy centres as conceptual indicator for the condition of diamond protection coatings. *Thin Solid Films*, **2019**, 669, 450-454	2.2	2
219	Effect of Initial Surface Features on Laser Polishing of Co-Cr-Mo Alloy Made by Powder-Bed Fusion. *Jom*, **2019**, 71, 912-919	2.1	16
218	Advances in macro-scale laser processing. *CIRP Annals - Manufacturing Technology*, **2018**, 67, 719-742	4.9	9
217	Mechanical Joining of Glass and Aluminium. *Key Engineering Materials*, **2018**, 767, 369-376	0.4	1
216	Determining Absorptivity Variations of Multiple Laser Beam Treatments of Stainless Steel Sheets. *Journal of Manufacturing and Materials Processing*, **2018**, 2, 84	2.2	4
215	Chances and Limitations in the Application of Laser Chemical Machining for the Manufacture of Micro Forming Dies. *MATEC Web of Conferences*, **2018**, 190, 15010	0.3	5
214	Additive manufacturing of tool steel by laser metal deposition. *Procedia CIRP*, **2018**, 74, 192-195	1.8	18

213	Laser welding of hidden T-joints with lateral beam oscillation. *Procedia CIRP*, **2018**, 74, 456-460	1.8	8
212	Laser micro drilling methods for perforation of aircraft suction surfaces. *Procedia CIRP*, **2018**, 74, 403-406	1.8	3
211	Geometrical design of micro-textured DLC coatings toward lubricant-free metal forming. *MATEC Web of Conferences*, **2018**, 190, 13001	0.3	2
210	Mechanisms and processing limits of surface finish using laser-thermochemical polishing. *CIRP Annals - Manufacturing Technology*, **2018**, 67, 201-204	4.9	13
209	Distortion-free laser beam shaping for material processing using a digital micromirror device. *Production Engineering*, **2017**, 11, 365-371	1.9	3
208	Compact Module for Maskless and Simultaneous 2D Laser Chemical Machining. *Lecture Notes in Production Engineering*, **2017**, 49-64	0	1
207	Laser Deep Penetration Welding of an Aluminum Alloy with Simultaneously Applied Vibrations. *Lasers in Manufacturing and Materials Processing*, **2017**, 4, 1-12	2.1	9
206	Developments for laser joining with high-quality seam surfaces. *Lightweight Design Worldwide*, **2017**, 10, 6-13	0.3	5
205	Influence of asymmetrical drawing radius deviation in micro deep drawing. *Journal of Physics: Conference Series*, **2017**, 896, 012060	0.3	
204	Crack formation on metal foils during high dynamic and quasi-static bulge test. *Journal of Physics: Conference Series*, **2017**, 896, 012072	0.3	1
203	Entwicklungen beim Laserf□gen mit hoher Nahtoberfl□chenqualit□t. *Lightweight Design*, **2017**, 10, 10-17	0.1	
202	Laser based additive manufacturing in industry and academia. *CIRP Annals - Manufacturing Technology*, **2017**, 66, 561-583	4.9	304
201	In-situ observation of lubricant flow on laser textured die surface in sheet metal forming. *Procedia Engineering*, **2017**, 207, 2209-2214		6
200	Experimental and Numerical Investigation of an Overheated Aluminum Droplet Wetting a Zinc-Coated Steel Surface. *Metals*, **2017**, 7, 535	2.3	2
199	Thermal Analysis of Laser Chemical Machining: Part I: Static Irradiation. *Materials Sciences and Applications*, **2017**, 08, 685-707	0.3	6
198	Energy-based Analysis of Material Dissolution Behavior for Laser-Chemical and Electrochemical Machining. *Procedia CIRP*, **2016**, 45, 347-350	1.8	6
197	Wetting and solidification characteristics of aluminium on zinc coated steel in laser welding and brazing. *Journal of Materials Processing Technology*, **2016**, 238, 352-360	5.3	18
196	Influence of tool geometry variations on the limiting drawing ratio in micro deep drawing. *International Journal of Material Forming*, **2016**, 9, 253-258	2	16

195	In situ incorporation of silicon into a CVD diamond layer deposited under atmospheric conditions. *Diamond and Related Materials*, **2016**, 65, 47-52	3.5	4
194	Contact-less temperature measurement and control with applications to laser cladding. *Welding in the World, Le Soudage Dans Le Monde*, **2016**, 60, 1-9	1.9	18
193	Fabrication and characterization of Bragg gratings in perfluorinated polymer optical fibers and their embedding in composites. *Mechatronics*, **2016**, 34, 137-146	3	20
192	Fatigue strength of hybrid welded 22MnB5 overlap joints. *Materialpruefung/Materials Testing*, **2016**, 58, 569-574	1.9	0
191	Investigations on dry sliding of laser cladded aluminum bronze. *Manufacturing Review*, **2016**, 3, 13	1.4	2
190	A strength-model for laser joined hybrid aluminum-titanium transition structures. *CIRP Annals - Manufacturing Technology*, **2016**, 65, 241-244	4.9	6
189	Analysis of Melting and Melt Expulsion During Nanosecond Pulsed Laser Ablation. *Physics Procedia*, **2016**, 83, 53-61		2
188	Keyhole stability during laser welding—part I: modeling and evaluation. *Production Engineering*, **2016**, 10, 443-457	1.9	16
187	Spatters during Laser Deep Penetration Welding with a Bifocal Optic. *Advanced Materials Research*, **2016**, 1140, 123-129	0.5	3
186	Influence of Joint Configuration on the Strength of Laser Welded Presshardened Steel. *Physics Procedia*, **2016**, 83, 373-382		5
185	Novel Approach to Increase the Energy-related Process Efficiency and Performance of Laser Brazing. *Physics Procedia*, **2016**, 83, 523-531		2
184	Form filling behaviour of preforms generated by laser rod end melting. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 293-296	4.9	2
183	Fracture Analysis of Competing Failure Modes of Aluminum-CFRP Joints Using Three-Layer Titanium Laminates as Transition. *Journal of Materials Engineering and Performance*, **2015**, 24, 3558-3572	1.6	7
182	Effect of tool geometry variations on the punch force in micro deep drawing of rectangular components. *Production Engineering*, **2015**, 9, 195-201	1.9	7
181	Forming Behavior during Joining by Laser Induced Shock Waves. *Key Engineering Materials*, **2015**, 651-653, 1451-1456	0.4	11
180	Determination of Forming Limit Diagrams for Thin Foil Materials Based on Scaled Nakajima Test. *Applied Mechanics and Materials*, **2015**, 794, 190-198	0.3	6
179	Laser beam welding of aluminum to Al-base coated high-strength steel 22MnB5. *Journal of Materials Processing Technology*, **2015**, 217, 88-95	5.3	31
178	Electrolytes for Sustainable Laser-Chemical Machining of Titanium, Stellite 21 and Tool Steel X110CrMoV8-2. *Applied Mechanics and Materials*, **2015**, 794, 262-269	0.3	3

177	Dry metal forming of high alloy steel using laser generated aluminum bronze tools. *MATEC Web of Conferences*, **2015**, 21, 08011	0.3	
176	Surface accuracy achieved by upsetting of preforms generated by laser rod end melting. *MATEC Web of Conferences*, **2015**, 21, 09006	0.3	2
175	Decreasing pore formation in multiple-sheet laser joining with interfacial polymeric contaminations. *Welding in the World, Le Soudage Dans Le Monde*, **2015**, 59, 683-692	1.9	4
174	Modeling keyhole oscillations during laser deep penetration welding at different spatial laser intensity distributions. *Production Engineering*, **2015**, 9, 167-178	1.9	20
173	Dry Metal Forming a Green Approach **2015**, 113-118		3
172	Energy dissipation in laser-based free form heading: a numerical approach. *Production Engineering*, **2014**, 8, 51-61	1.9	2
171	In situ doping of diamond coatings with silicon, aluminum and titanium through a modified laser-based CVD process. *Diamond and Related Materials*, **2014**, 41, 41-48	3.5	4
170	Fabrication and Characterization of Bragg Gratings in a Graded-index Perfluorinated Polymer Optical Fiber. *Procedia Technology*, **2014**, 15, 138-146		19
169	The Role of Zinc Layer During Wetting of Aluminium on Zinc-coated Steel in Laser Brazing and Welding. *Physics Procedia*, **2014**, 56, 730-739		20
168	Oberflchen gezielt modifizieren. *JOT, Journal Fuer Oberflaechentechnik*, **2014**, 54, 102-103	0	
167	Gap Bridging Ability in Laser Beam Welding of Thin Aluminum Sheets. *Physics Procedia*, **2014**, 56, 545-553		22
166	Pre-selection of laser-processed materials for dry forming tools by means of a dry oscillating ball-on-disc test. *Production Engineering*, **2014**, 8, 603-611	1.9	6
165	Influence of grain refinement on hot cracking in laser welding of aluminum. *Welding in the World, Le Soudage Dans Le Monde*, **2014**, 58, 355-366	1.9	28
164	Wetting behavior of eutectic AlSi droplets on zinc coated steel substrates. *Journal of Materials Processing Technology*, **2014**, 214, 123-131	5.3	44
163	Surface Roughness and Size Effect in Dendrite Arm Spacing at Preforms of AISI 304 (1.4301) Generated by Laser Rod End Melting. *Procedia Engineering*, **2014**, 81, 1589-1594		2
162	Gap bridging ability in laser beam welding of thin aluminum sheets **2014**,		2
161	Particle Property Impact on its Distribution During Laser Deep Alloying Processes. *Physics Procedia*, **2014**, 56, 1094-1101		6
160	CFRP-Aluminium Structures Realized by Laser Beam Joining Process. *Advanced Materials Research*, **2014**, 907, 89-96	0.5	

159	High Speed Joining by Laser Shock Forming. *Advanced Materials Research*, **2014**, 966-967, 597-606	0.5	10
158	Two-beam Laser Brazing of Thin Sheet Steel for Automotive Industry Using Cu-base Filler Material. *Physics Procedia*, **2014**, 56, 699-708		8
157	High Speed Laser Micro Drilling for Aerospace Applications. *Procedia CIRP*, **2014**, 24, 130-133	1.8	19
156	Residual Stress Formation Relating to Peak Temperature- and Austenite Grain Size-based Phase Transformation of S355 Steel. *Physics Procedia*, **2014**, 56, 1343-1352		2
155	Numerical Approach to Determine Natural Strain of Spherical Preforms in Open Die Upsetting. *Advanced Materials Research*, **2014**, 1018, 325-332	0.5	1
154	Wear behaviour in a combined micro blanking and deep drawing process. *CIRP Annals - Manufacturing Technology*, **2014**, 63, 281-284	4.9	19
153	Dry metal forming: Definition, chances and challenges. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2014**, 1, 59-62	3.8	89
152	Joining by laser shock forming: realization and acting pressures. *Production Engineering*, **2014**, 8, 283-290	1.9	21
151	Laser Welding of Large Scale Stainless Steel Aircraft Structures. *Physics Procedia*, **2013**, 41, 106-111		15
150	Stress analysis based on strain measurement in sheet metal laser bending. *Production Engineering*, **2013**, 7, 647-655	1.9	2
149	Ultraviolet lithography on sloped surfaces utilizing diamond turned holograms. *Production Engineering*, **2013**, 7, 619-627	1.9	
148	Compact machining module for laser chemical manufacturing. *Production Engineering*, **2013**, 7, 541-545	1.9	
147	Bend sensor based on fibreoptics and concept for a compact evaluation unit. *Production Engineering*, **2013**, 7, 15-22	1.9	1
146	Inductive Preheating in Laser Beam Welding of Multimaterial Joints of 22MnB5 and AA6016. *Physics Procedia*, **2013**, 41, 41-48		5
145	Laser Brazing of Aluminum with a New Filler Wire AlZn13Si10Cu4. *Physics Procedia*, **2013**, 41, 128-136		7
144	Disturbance of material removal in laser-chemical machining by emerging gas. *CIRP Annals - Manufacturing Technology*, **2013**, 62, 195-198	4.9	16
143	Analytical Modeling of the Keyhole Including Multiple Reflections for Analysis of the Influence of Different Laser Intensity Distributions on Keyhole Geometry. *Physics Procedia*, **2013**, 41, 460-468		13
142	Basic Aspects. *Lecture Notes in Production Engineering*, **2013**, 5-47	0	

141	Sheet Metal Forming. *Lecture Notes in Production Engineering*, **2013**, 135-176	0	
140	Microstructure and Properties of Selective Laser Melted High Hardness Tool Steel. *Physics Procedia*, **2013**, 41, 843-848		24
139	Wear Behavior of a DLC-Coated Blanking and Deep Drawing Tool Combination. *Key Engineering Materials*, **2013**, 549, 511-517	0.4	6
138	Influence of Tool Geometry Variation on the Punch Force in Micro Deep Drawing. *Key Engineering Materials*, **2013**, 554-557, 1306-1311	0.4	5
137	Investigation on Flow Stress Level of Spherical Preforms Generated by Laser Melting. *Materials and Manufacturing Processes*, **2013**, 28, 519-523	4.1	1
136	Dauerfestigkeit nach dem Laserstrahlbeschichten. *Laser Technik Journal*, **2013**, 10, 36-39		
135	Investigation of a UV-laser generated waveguide in a planar polymer chip using an improved interferometric method. *Optics and Lasers in Engineering*, **2012**, 50, 405-412	4.6	5
134	Numerical simulation of molten pool dynamics in high power disk laser welding. *Journal of Materials Processing Technology*, **2012**, 212, 262-275	5.3	212
133	Tribological behaviour of DLC-films and their application in micro deep drawing. *Journal of Materials Processing Technology*, **2012**, 212, 647-652	5.3	51
132	Fracture behavior of thin foils. *Journal of Materials Processing Technology*, **2012**, 212, 685-688	5.3	7
131	Strategies for reduced distortion during laser beam welding of shaft-hub joints. *Materialwissenschaft Und Werkstofftechnik*, **2012**, 43, 105-111	0.9	
130	Effects on the deep drawing diagram in micro forming. *Production Engineering*, **2012**, 6, 11-18	1.9	18
129	Residual Stresses in Steel Specimens Induced by Laser Cladding and their Effect on Fatigue Strength. *Physics Procedia*, **2012**, 39, 354-361		25
128	Characterization of Ti6Al4V for Integral Transition Structures in FRP□Aluminum Compounds. *Steel Research International*, **2012**, 83, 964-971	1.6	2
127	Comparison of coaxial and off-axis nozzle configurations in one step process laser cladding on aluminum substrate. *Journal of Materials Processing Technology*, **2012**, 212, 2514-2519	5.3	21
126	Joining Oftitanium-Aluminium Seat Tracks for Aircraft Applications □System Technology and Joint Properties. *Welding in the World, Le Soudage Dans Le Monde*, **2012**, 56, 108-114	1.9	12
125	Mechanical flange forming in steel and copper foil. *Production Engineering*, **2012**, 6, 551-558	1.9	2
124	Laser-Mig Hybrid Welding Of Aluminium To Steel □Effect Of Process Parameters On Joint Properties. *Welding in the World, Le Soudage Dans Le Monde*, **2012**, 56, 124-132	1.9	39

123	Drawability of thin magnetron sputtered Al□r foils in micro deep drawing. *Transactions of Nonferrous Metals Society of China*, **2012**, 22, s268-s274	3.3	13
122	Laser-chemical precision machining of micro forming tools at low laser powers **2012**,		2
121	An approach to calculate fatigue properties of laser cladded components. *Production Engineering*, **2012**, 6, 137-148	1.9	20
120	Influence of Punch Velocity on Spring Back in Micro Forming. *Key Engineering Materials*, **2012**, 504-506, 593-598	0.4	1
119	Laser-Mig Hybrid Welding of aluminium to steel □A straightforward analytical model for wetting length. *Welding in the World, Le Soudage Dans Le Monde*, **2011**, 55, 58-66	1.9	18
118	Possibilities and limitations of geometric simplifications for calculations of residual stresses and distortions. *Production Engineering*, **2011**, 5, 485-495	1.9	1
117	Effect of heat treatment on the hardness of micro deep drawn cups of Al-2Sc. *Materialwissenschaft Und Werkstofftechnik*, **2011**, 42, 1035-1039	0.9	1
116	Effect of electromagnetic Stirring on the Element Distribution in Laser Beam Welding of Aluminium with Filler Wire. *Physics Procedia*, **2011**, 12, 56-65		40
115	Grain Refinement by Laser Welding of AA 5083 with Addition of Ti/B. *Physics Procedia*, **2011**, 12, 123-133		4
114	Combined Laser Beam Welding and Brazing Process for Aluminium Titanium Hybrid Structures. *Physics Procedia*, **2011**, 12, 215-223		47
113	Influence of Laser Reconditioning on Fatigue Properties of Crankshafts. *Physics Procedia*, **2011**, 12, 512-518		28
112	Fabrication of an integrated optical Mach□ehnder interferometer based on refractive index modification of polymethylmethacrylate by krypton fluoride excimer laser radiation. *Applied Surface Science*, **2011**, 257, 5237-5240	6.7	16
111	Classification of laser shock forming within the field of high speed forming processes. *Journal of Materials Processing Technology*, **2011**, 211, 953-957	5.3	36
110	Effect of Thermal Cycle on the Formation of Intermetallic Compounds in Laser Welding of Aluminum-Steel Overlap Joints. *Physics Procedia*, **2011**, 12, 134-141		25
109	Optimisation of the blank shape for micro deep drawing of rectangular parts **2011**,		4
108	X-ray investigation of melt flow behavior under magnetic stirring regime in laser beam welding of aluminum. *Journal of Laser Applications*, **2011**, 23, 032002	2.1	24
107	Forming Behavior of Thin Foils. *Key Engineering Materials*, **2011**, 473, 1008-1015	0.4	8
106	Size Effects in Micro Forming. *Key Engineering Materials*, **2011**, 473, 3-12	0.4	18

105	Characteristic of wear behavior of micro deep drawing tools **2011**,		2
104	Process Chains in Microforming Technology Using Scaling Effects **2011**,		5
103	Undercuts by Laser Shock Forming **2011**,		8
102	Characterization of a waveguide written by a UV laser into a planar polymer chip by digital holographic interferometry **2011**,		1
101	Laser and Laser-Hybrid Welding of Thick Section Material in Scientific and Industrial Applications. *Yosetsu Gakkai Shi/Journal of the Japan Welding Society*, **2011**, 80, 94-101	0.1	1
100	Experimental investigation of the melt flow in aluminum during laser welding with magnetic stirring **2010**,		2
99	Distortion effects in micro welding with fibre laser **2010**,		3
98	Modellgestützte Prozessplanung zur laserchemischen Herstellung von Mikroumformwerkzeugen Parameter and Path Planning for a Laser-Chemical Production of Micro-Forming Dies. *TM Technisches Messen*, **2010**, 77, 229-236	0.7	
97	Ein modifiziertes Bath-Interferometer zur Profilmessung von Mikrostrukturen. *TM Technisches Messen*, **2010**, 77, 579-582	0.7	1
96	Welding Thick Steel Plates with Fibre Lasers and GMAW. *Welding in the World, Le Soudage Dans Le Monde*, **2010**, 54, R62-R70	1.9	38
95	Microstructure and mechanical properties of laser-welded joints of TWIP and TRIP steels. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 2071-2078	5.3	88
94	Thin nanocrystalline diamond films deposited by LaPlas-CVD at atmospheric pressure. *Production Engineering*, **2010**, 4, 9-14	1.9	5
93	Limits for interferometric measurements on rough surfaces in streaming inhomogeneous media. *Production Engineering*, **2010**, 4, 141-146	1.9	6
92	On the limit drawing ratio of magnetron sputtered aluminium-scandium foils within micro deep drawing. *Production Engineering*, **2010**, 4, 451-456	1.9	9
91	Analysis of punch velocity dependent process window in micro deep drawing. *Production Engineering*, **2010**, 4, 553-559	1.9	30
90	Laser reconditioning of crankshafts: From lab to application. *Physics Procedia*, **2010**, 5, 387-397		30
89	Novel method for joining CFRP to aluminium. *Physics Procedia*, **2010**, 5, 37-45		29
88	Solutions for joining pipe steels using laser-GMA-hybrid welding processes. *Physics Procedia*, **2010**, 5, 77-87		25

87	Distortion and residual stresses in laser beam weld shaft-hub joints. *Physics Procedia*, **2010**, 5, 89-98		7
86	Different types to use laser as a forming tool. *Physics Procedia*, **2010**, 5, 193-203		11
85	Upset ratios in laser-based free form heading. *Physics Procedia*, **2010**, 5, 227-232		6
84	Online focus shift measurement in high power fiber laser welding. *Physics Procedia*, **2010**, 5, 455-463		10
83	Mechanisms and processing limits in laser thermochemical machining. *CIRP Annals - Manufacturing Technology*, **2010**, 59, 251-254	4.9	34
82	Micro cold forming tools from hypereutectoid 8%Cr-steels by spray forming and selective laser melting. *HTM - Journal of Heat Treatment and Materials*, **2010**, 65, 125-134	0.7	1
81	Fracture Limits of Metal Foils in Micro Forming **2010**, 49-52		6
80	Prevention of Partial Draw-In During High Speed Deep Drawing. *Key Engineering Materials*, **2009**, 410-411, 571-578	0.4	
79	Microstructure and mechanical properties of laser welded austenitic high manganese steels. *Science and Technology of Welding and Joining*, **2009**, 14, 517-522	3.7	34
78	Simulation of the distortion manipulation of gear wheel teeth by thermal pre-stressing. *Materialwissenschaft Und Werkstofftechnik*, **2009**, 40, 479-484	0.9	2
77	Structuring of nanoporous nickel-based superalloy membranes via laser etching. *Journal of Materials Processing Technology*, **2009**, 209, 4739-4743	5.3	18
76	On the acting pressure in laser deep drawing. *Production Engineering*, **2009**, 3, 1-8	1.9	42
75	Size effects in manufacturing of metallic components. *CIRP Annals - Manufacturing Technology*, **2009**, 58, 566-587	4.9	297
74	Ein alternatives Verfahren zur Abscheidung von dünen modifizierten Diamantschichten. *Vakuum in Forschung Und Praxis*, **2009**, 21, 24-26	0.3	2
73	Properties and Prospects of High Brightness Solid State Lasers. *Laser Technik Journal*, **2009**, 6, 27-31		7
72	Modelling of laser forming – An review. *Computational Materials Science*, **2009**, 46, 834-840	3.2	113
71	Interaction between Laser Beam and Arc in Hybrid Welding Processes for Dissimilar Materials. *Welding in the World, Le Soudage Dans Le Monde*, **2009**, 53, 58-66	1.9	5
70	Reduction of Hot Cracking in Laser Welding using Hypereutectic AlSi Filler Wire. *Welding in the World, Le Soudage Dans Le Monde*, **2008**, 52, 3-8	1.9	8

69	Humping Effect in Welding of Steel with Single-Mode Fibre Laser. *Welding in the World, Le Soudage Dans Le Monde*, **2008**, 52, 9-18	1.9	7
68	Versatile microforming press. *International Journal of Materials and Product Technology*, **2008**, 32, 423	1	3
67	Endurance limit of pulsed laser hardened component-like specimens Experiment and simulation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2008**, 488, 358-371	5.3	10
66	High temperature behaviour of NiCrAlY coatings made by laser cladding. *Surface and Coatings Technology*, **2008**, 202, 2208-2213	4.4	39
65	Modelling of friction with respect to size effects. *International Journal of Material Forming*, **2008**, 1, 1231-1234	1.2	14
64	Deep penetration dispersing of aluminum with TiB2 using a single mode fiber laser. *Production Engineering*, **2008**, 2, 27-32	1.9	10
63	Categories of size effects. *Production Engineering*, **2008**, 2, 377-383	1.9	113
62	Determination of size-dependent friction functions in sheet metal forming with respect to the distribution of the contact pressure. *Production Engineering*, **2008**, 2, 345-350	1.9	30
61	Maßgeschneiderte Tribologie durch Laseroberflächenbehandlung. *Materialwissenschaft Und Werkstofftechnik*, **2008**, 39, 88-92	0.9	3
60	Energy balance in laser-based free form heading. *CIRP Annals - Manufacturing Technology*, **2008**, 57, 291-294	4.9	21
59	Tiefes Legieren von Aluminium mit Hilfe eines hochintensiven Laserstrahls. *ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb*, **2008**, 103, 574-578	0.5	0
58	Fibre laser GMA hybrid welding of thin sheet material **2007**,		5
57	UV-laser-assisted liquid phase fluorination of PMMA. *Applied Surface Science*, **2007**, 253, 9435-9442	6.7	7
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