A Erman Tekkaya

List of Publications by Citations

463 papers	9,014 citations	41 h-index	82 g-index
506 ext. papers	10,345 ext. citations	2.5 avg, IF	6.59 L-index

#	Paper	IF	Citations
463	A review on hot stamping. *Journal of Materials Processing Technology*, **2010**, 210, 2103-2118	5.3	1102
462	Electromagnetic forming—A review. *Journal of Materials Processing Technology*, **2011**, 211, 787-829	5.3	588
461	Joining by plastic deformation. *CIRP Annals - Manufacturing Technology*, **2013**, 62, 673-694	4.9	294
460	Bulk forming of sheet metal. *CIRP Annals - Manufacturing Technology*, **2012**, 61, 725-745	4.9	257
459	Hybrid processes in manufacturing. *CIRP Annals - Manufacturing Technology*, **2014**, 63, 561-583	4.9	227
458	Testing and modelling of material behaviour and formability in sheet metal forming. *CIRP Annals - Manufacturing Technology*, **2014**, 63, 727-749	4.9	151
457	Formability limits by fracture in sheet metal forming. *Journal of Materials Processing Technology*, **2014**, 214, 1557-1565	5.3	140
456	A comparison of orthogonal cutting data from experiments with three different finite element models. *International Journal of Machine Tools and Manufacture*, **2004**, 44, 933-944	9.4	138
455	Hot profile extrusion of AA-6060 aluminum chips. *Journal of Materials Processing Technology*, **2009**, 209, 3343-3350	5.3	123
454	Incremental Bulk Metal Forming. *CIRP Annals - Manufacturing Technology*, **2007**, 56, 635-656	4.9	123
453	Formability of Metallic Materials. *Engineering Materials*, **2000**,	0.4	118
452	State-of-the-art of simulation of sheet metal forming. *Journal of Materials Processing Technology*, **2000**, 103, 14-22	5.3	116
451	Modeling of ductile fracture from shear to balanced biaxial tension for sheet metals. *International Journal of Solids and Structures*, **2017**, 112, 169-184	3.1	114
450	Metal forming beyond shaping: Predicting and setting product properties. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 629-653	4.9	111
449	The Increased Forming Limits of Incremental Sheet Forming Processes. *Key Engineering Materials*, **2007**, 344, 621-628	0.4	110
448	Single point incremental forming of PVC. *Journal of Materials Processing Technology*, **2009**, 209, 462-469	5.3	105
447	Single point incremental forming of polymers. *CIRP Annals - Manufacturing Technology*, **2009**, 58, 229-232	4.9	100

446	Velocity effects in metal forming and machining processes. *CIRP Annals - Manufacturing Technology*, **2011**, 60, 627-650	4.9	99
445	Biomechanical effects of rapid maxillary expansion on the craniofacial skeleton, studied by the finite element method. *European Journal of Orthodontics*, **1998**, 20, 347-56	3.3	99
444	Closed-loop control of product properties in metal forming. *CIRP Annals - Manufacturing Technology* , **2016**, 65, 573-596	4.9	94
443	Characterization of fracture loci in metal forming. *International Journal of Mechanical Sciences*, **2014** , 83, 112-123	5.5	91
442	Improving mechanical properties of chip-based aluminum extrudates by integrated extrusion and equal channel angular pressing (iECAP). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 539, 194-204	5.3	78
441	The Development of Ring Rolling Technology. *Steel Research International*, **2005**, 76, 111-120	1.6	78
440	The new TSS bending process: 3D bending of profiles with arbitrary cross-sections. *CIRP Annals - Manufacturing Technology*, **2010**, 59, 315-318	4.9	73
439	Experimental investigation of embedding high strength reinforcements in extrusion profiles. *CIRP Annals - Manufacturing Technology*, **2008**, 57, 313-316	4.9	72
438	An experimental and numerical investigation of different shear test configurations for sheet metal characterization. *International Journal of Solids and Structures*, **2014**, 51, 1066-1074	3.1	70
437	Effect of die design on the welding quality during solid state recycling of AA6060 chips by hot extrusion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 574, 163-175	5.3	66
436	Environmental assessment of solid state recycling routes for aluminium alloys: Can solid state processes significantly reduce the environmental impact of aluminium recycling?. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 37-40	4.9	64
435	A combined experimentalnumerical investigation of ductile fracture in bending of a class of ferritichartensitic steel. *International Journal of Solids and Structures*, **2012**, 49, 1608-1626	3.1	57
434	Flexibility in metal forming. *CIRP Annals - Manufacturing Technology*, **2018**, 67, 743-765	4.9	56
433	A new method for determining dynamic grain structure evolution during hot aluminum extrusion. *Journal of Materials Processing Technology*, **2012**, 212, 323-330	5.3	56
432	Forming of Lightweight Metal Components: Need for New Technologies. *Procedia Engineering*, **2014**, 81, 28-37		54
431	A semi-empirical approach for residual stresses in electric discharge machining (EDM). *International Journal of Machine Tools and Manufacture*, **2006**, 46, 858-868	9.4	54
430	Characterization of anisotropy of sheet metals employing inhomogeneous strain fields for Yld2000-2D yield function. *International Journal of Solids and Structures*, **2012**, 49, 3517-3527	3.1	51
429	Accuracy, reliability and validity of finite element analysis in metal forming: a user's perspective. *Engineering Computations*, **2009**, 26, 1026-1055	1.4	48

428	A cyclic twin bridge shear test for the identification of kinematic hardening parameters. *International Journal of Mechanical Sciences*, **2012**, 59, 31-43	5.5	47
427	A grooved in-plane torsion test for the investigation of shear fracture in sheet materials. *International Journal of Solids and Structures*, **2015**, 66, 121-132	3.1	46
426	RESIDUAL STRESS STATE AND HARDNESS DEPTH IN ELECTRIC DISCHARGE MACHINING: DE-IONIZED WATER AS DIELECTRIC LIQUID. *Machining Science and Technology*, **2005**, 9, 39-61	2	45
425	Remote and Virtual Labs for Engineering Education 4.0: Achievements of the ELLI project at the TU Dortmund University. *Procedia Manufacturing*, **2018**, 26, 1349-1360	1.5	44
424	Cold extrusion of hot extruded aluminum chips. *Journal of Materials Processing Technology*, **2015**, 217, 356-367	5.3	43
423	An Improved Relationship between Vickers Hardness and Yield Stress for Cold Formed Materials and its Experimental Verification. *CIRP Annals - Manufacturing Technology*, **2000**, 49, 205-208	4.9	42
422	Numerical investigation of non-homogeneous plastic deformation in quenching process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 319-321, 164-169	5.3	40
421	A New Shear Test for Sheet Metal Characterization. *Steel Research International*, **2011**, 82, 323-328	1.6	39
420	The Development of Ring Rolling Technology Part 2: Investigation of Process Behaviour and Production Equipment. *Steel Research International*, **2005**, 76, 491-507	1.6	39
419	Influence of groove characteristics on strength of form-fit joints. *Journal of Materials Processing Technology*, **2011**, 211, 925-935	5.3	38
418	High quality extrudates from aluminum chips by new billet compaction and deformation routes. *CIRP Annals - Manufacturing Technology*, **2012**, 61, 239-242	4.9	37
417	The Technical and Commercial Potential of an Incremental Ring Rolling Process. *CIRP Annals - Manufacturing Technology*, **2005**, 54, 233-236	4.9	37
416	Advancements in the manufacturing of dies for hot aluminum extrusion with conformal cooling channels. *International Journal of Advanced Manufacturing Technology*, **2016**, 83, 1209-1220	3.2	36
415	Prediction of roughness after ball burnishing of thermally coated surfaces. *Journal of Materials Processing Technology*, **2015**, 217, 193-201	5.3	36
414	Direct recycling of 1050 aluminum alloy scrap material mixed with 6060 aluminum alloy chips by hot extrusion. *International Journal of Material Forming*, **2010**, 3, 853-856	2	36
413	Microstructure analysis of aluminum extrusion: Prediction of microstructure on AA6060 alloy. *Journal of Materials Processing Technology*, **2008**, 201, 156-162	5.3	36
412	Fundamentals of the incremental tube forming process. *CIRP Annals - Manufacturing Technology*, **2014**, 63, 253-256	4.9	35
411	Influence of the flyer kinetics on magnetic pulse welding of tubes. *Journal of Materials Processing Technology*, **2018**, 262, 189-203	5.3	34

410	Thermo-mechanical coupled simulation of hot stamping components for process design. *Production Engineering*, **2007**, 1, 85-89	1.9	34
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408	Analytical methodology for the process design of electromagnetic crimping. *Journal of Materials Processing Technology*, **2015**, 222, 163-180	5.3	31
407	Damage Mechanisms and Mechanical Properties of High-Strength Multiphase Steels. *Materials*, **2018**, 11,	3.5	31
406	Controlling heat balance in hot aluminum extrusion by additive manufactured extrusion dies with conformal cooling channels. *International Journal of Precision Engineering and Manufacturing*, **2013**, 14, 1487-1493	1.7	31
405	Application of Continuum Damage Mechanics in discontinuous crack formation: Forward extrusion chevron predictions. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2008**, 88, 436-453	1	31
404	Forming-induced damage and its effects on product properties. *CIRP Annals - Manufacturing Technology*, **2017**, 66, 281-284	4.9	30
403	Manufacturing of functional elements by sheet-bulk metal forming processes. *Production Engineering*, **2016**, 10, 63-80	1.9	30
402	Textured surfaces for deep drawing tools by rolling. *International Journal of Machine Tools and Manufacture*, **2010**, 50, 969-976	9.4	29
401	Numerical simulation of various cross sectional workpieces using conventional deep drawing and hydroforming technologies. *International Journal of Machine Tools and Manufacture*, **2008**, 48, 532-542	9.4	29
400	Determining cyclic flow curves using the in-plane torsion test. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 261-264	4.9	28
399	Residual Stresses in Cold-Formed Workpieces. *CIRP Annals - Manufacturing Technology*, **1985**, 34, 225-230	4.9	28
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397	Lightweight in Automotive Components by Forming Technology. *Automotive Innovation*, **2020**, 3, 195-209	2.7	27
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391	Experimental and numerical analysis of tribological effective surfaces for forming tools in Sheet-Bulk Metal Forming. *Production Engineering*, **2016**, 10, 37-50	1.9	25
390	Analytical approach for magnetic pulse welding of sheet connections. *Journal of Materials Processing Technology*, **2016**, 230, 131-142	5.3	25
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388	Recycling of Aluminum Chips by Hot Extrusion with Subsequent Cold Extrusion. *Procedia Engineering*, **2014**, 81, 652-657		24
387	Production of low-volume aviation components using disposable electromagnetic actuators. *Journal of Materials Processing Technology*, **2011**, 211, 886-895	5.3	24
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384	Thermo-mechanical processing of aluminum profiles by integrated electromagnetic compression subsequent to hot extrusion. *Journal of Materials Processing Technology*, **2011**, 211, 936-943	5.3	23
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382	Springback prediction and reduction in deep drawing under influence of unloading modulus degradation. *International Journal of Material Forming*, **2016**, 9, 619-633	2	22
381	Wear behavior of tribologically optimized tool surfaces for incremental forming processes. *Tribology International*, **2016**, 104, 64-72	4.9	22
380	Grain size evolution simulation in aluminium alloys AA 6082 and AA 7020 during hot forward extrusion process. *Materials Science and Technology*, **2013**, 29, 100-110	1.5	22
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375	Development of a tele-operative testing cell as a remote lab for material characterization **2014**,		21

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365	Global and High-Resolution Damage Quantification in Dual-Phase Steel Bending Samples with Varying Stress States. *Metals*, **2019**, 9, 319	2.3	19
364	Mechanics of sheet-bulk indentation. *Journal of Materials Processing Technology*, **2014**, 214, 2387-2394	5.3	19
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342	Enhanced granular medium-based tube and hollow profile press hardening. *CIRP Annals - Manufacturing Technology*, **2016**, 65, 273-276	4.9	16
341	Magnetic Pulse Welding by Electromagnetic Compression: Determination of the Impact Velocity. *Advanced Materials Research*, **2014**, 966-967, 489-499	0.5	16
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