Uday Chakkingal

List of Publications by Year
in descending order

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59 papers	1,669 citations	346980 22 h-index	340414 39 g-index
61 all docs	61 docs citations	61 times ranked	1308 citing authors

#	Article	IF	Citations
1	Evaluation of hole expansion formability of high strength AA7075 alloy under varying temper conditions. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012038.	0.3	7
2	A Review of Fine Blanking: Influence of Die Design and Process Parameters on Edge Quality. Journal of Materials Engineering and Performance, 2021, 30, 1-32.	1.2	16
3	On the interplay of friction and stress relaxation to improve stretch-flangeability of dual phase (DP600) steel. CIRP Journal of Manufacturing Science and Technology, 2021, 32, 154-169.	2.3	20
4	Tailoring the Properties of Biodegradable Mgâ€“Ca Alloy by Groove Pressing Technique. Transactions of the Indian Institute of Metals, 2021, 74, 791-798.	0.7	3
5	A novel method for the spring-back analysis of a hot stamping steel. Journal of Materials Research and Technology, 2021, 11, 227-234.	2.6	10
6	Evaluation of stretch flangeability of dual-phase steels by hole expansion test. International Journal of Advanced Manufacturing Technology, 2021, 114, 205-217.	1.5	11
7	Investigations on the Creep Behavior of Friction-Stir-Processed Magnesium Alloy AE42. Journal of Materials Engineering and Performance, 2020, 29, 3172-3182.	1.2	5
8	The Effect of Heat Treatment and the Volume Fraction of the Alpha Phase on the Workability of Ti-5Al-5Mo-5V-3Cr Alloy. Journal of Materials Engineering and Performance, 2019, 28, 5352-5360.	1.2	3
9	A constitutive model to describe high temperature flow behavior of AZ31B magnesium alloy processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 659-673.	2.6	30
10	Investigation of a Modified Fine Piercing Process on Extra Deep Drawing Grade Steel. Journal of Materials Engineering and Performance, 2019, 28, 7789-7803.	1.2	2
11	Workability Limits of Magnesium Alloy AZ31B Subjected to Equal Channel Angular Pressing. Journal of Materials Engineering and Performance, 2018, 27, 1352-1360.	1.2	4
12	Ti-5Al-5Mo-5V-3Cr and similar Mo equivalent alloys: First principles calculations and experimental investigations. Journal of Applied Research and Technology, 2017, 15, 21-26.	0.6	10
13	Microstructure, texture and mechanical properties of hot rolled metastable Î²-titanium alloy Ti-5Al-3.5Mo-7.2V-3Cr. Materials Today: Proceedings, 2017, 4, 851-856.	0.9	4
14	Nano and ultra fine grained metallic biomaterials by severe plastic deformation techniques. Materials Technology, 2016, 31, 743-755.	1.5	19
15	Development of Î± precipitates in metastable Ti-5Al-5Mo-5V-3Cr and similar alloys. Materials Characterization, 2016, 120, 220-228.	1.9	30
16	Effect of Alloying Elements in Hot-Rolled Metastable Î²-Titanium Alloys. Part II: Mechanical Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3447-3463.	1.1	19
17	In vitro and in vivo studies of biodegradable fine grained AZ31 magnesium alloy produced by equal channel angular pressing. Materials Science and Engineering C, 2016, 59, 356-367.	3.8	97
18	Making ceramic- metal composite material by friction stir processing. IOP Conference Series: Materials Science and Engineering, 2015, 73, 012064.	0.3	1

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19	Fine Piercing with Rubber for Counter Force in a Double Action Hydraulic Press. Transactions of the Indian Institute of Metals, 2015, 68, 235-242.	0.7	4
20	Effect of Alloying Elements in Hot-Rolled Metastable Î²-Titanium Alloys: Part I. Evolution of Microstructure and Texture. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2646-2663.	1.1	17
21	Microstructure, Texture and Mechanical Properties of hot Rolled Metastable Î²-Titanium Alloy Ti-5Al-5Mo-5V-3Cr. Materials Today: Proceedings, 2015, 2, 1118-1126.	0.9	9
22	Effect of geometric parameters on strain, strain inhomogeneity and peak pressure in equal channel angular pressing â€“ A study based on 3D finite element analysis. Journal of Manufacturing Processes, 2015, 17, 88-97.	2.8	23
23	Effect of Processing Route and Working Temperature on Microstructure Evolution of AZ31 Magnesium Alloy During Equal Channel Angular Pressing. , 2014, 5, 841-846.		2
24	Flow behaviour of magnesium alloy AZ31B processed by equal-channel angular pressing. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012139.	0.3	0
25	Friction stir processing of magnesiumâ€“nanohydroxyapatite composites with controlled in vitro degradation behavior. Materials Science and Engineering C, 2014, 39, 315-324.	3.8	109
26	Nano-hydroxyapatite reinforced AZ31 magnesium alloy by friction stir processing: a solid state processing for biodegradable metal matrix composites. Journal of Materials Science: Materials in Medicine, 2014, 25, 975-988.	1.7	85
27	Processing and mechanical behavior of lamellar structured degradable magnesiumâ€“hydroxyapatite implants. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 40, 178-189.	1.5	91
28	Hardness characteristic and shear band formation in metastable Î²-titanium alloys. Materials Characterization, 2014, 96, 151-157.	1.9	32
29	Wettability and In Vitro Bioactivity Studies on Titanium Rods Processed by Equal Channel Angular Pressing. Transactions of the Indian Institute of Metals, 2013, 66, 299-304.	0.7	13
30	Mechanical Behavior of Commercial Purity Titanium Processed by Equal Channel Angular Pressing Followed by Cold Rolling. Transactions of the Indian Institute of Metals, 2013, 66, 357-362.	0.7	10
31	Characterization of AA6061 Alloy Processed by Equal Channel Angular Pressing and Subjected to Low Cycle Fatigue. Transactions of the Indian Institute of Metals, 2013, 66, 147-154.	0.7	4
32	Role of biomineralization on the degradation of fine grained AZ31 magnesium alloy processed by groove pressing. Materials Science and Engineering C, 2013, 33, 1607-1615.	3.8	76
33	Influence of Groove Pressing Process on the Drawability (R Value) of Aluminium Alloy AA 5052 Sheets. Materials Science Forum, 2013, 765, 363-367.	0.3	1
34	IMPROVED CORROSION RESISTANCE OF FRICTION STIR ZONE OF RARE EARTH MAGNESIUM ALLOY AE42. International Journal of Mechanical and Industrial Engineering, 2013, , 21-24.	0.0	0
35	Deformation and temperature aided sintering during hooker extrusion of sintered PM preforms of steel. Powder Metallurgy, 2011, 54, 193-201.	0.9	0
36	Deep drawability of commercial purity aluminum sheets processed by groove pressing. Journal of Materials Processing Technology, 2010, 210, 1511-1516.	3.1	31

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37	Tailoring the bioactivity of commercially pure titanium by grain refinement using groove pressing. Materials Science and Engineering C, 2010, 30, 203-208.	3.8	44
38	Improvement in Drawability (r Value) of an Aluminum Alloy Subjected to Groove Pressing. Materials Science Forum, 2010, 638-642, 1911-1916.	0.3	1
39	Flow Behaviour of Commercial Purity Titanium Subjected to Equal Channel Angular Pressing. Materials Science Forum, 2010, 667-669, 867-872.	0.3	1
40	Finite Element Analysis of Multi-Pass Equal Channel Angular Extrusion/Pressing Process. Materials Science Forum, 2010, 654-656, 1574-1577.	0.3	1
41	Study of channel angle influence on material flow and strain inhomogeneity in equal channel angular pressing using 3D finite element simulation. Journal of Materials Processing Technology, 2009, 209, 89-95.	3.1	99
42	Influence of temperature on the forming limit diagrams of sintered P/M preforms of steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 485, 395-402.	2.6	9
43	Flow properties of an aluminum alloy processed by equal channel angular pressing. Journal of Materials Science, 2008, 43, 7432-7437.	1.7	6
44	Investigations on workability of commercial purity aluminum processed by equal channel angular pressing. Journal of Materials Processing Technology, 2008, 202, 543-548.	3.1	30
45	Flow properties of commercial purity aluminum processed by equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 487, 264-270.	2.6	20
46	Study of inner corner influence in equal Channel Angular Pressing using 3D finite element simulation. Transactions of the Indian Institute of Metals, 2008, 61, 125-129.	0.7	3
47	Severe plastic deformation and strain localization in groove pressing. Computational Materials Science, 2008, 43, 641-645.	1.4	68
48	Influence of cold extrusion on the microstructure and mechanical properties of an aluminium alloy previously subjected to equal channel angular pressing. Journal of Materials Processing Technology, 2007, 182, 363-368.	3.1	28
49	Equal Channel Angular Extrusion of Tubular Aluminum Alloy Specimensâ€"Analysis of Extrusion Pressures and Mechanical Properties. Journal of Manufacturing Processes, 2006, 8, 112-120.	2.8	19
50	Candidature of equal channel angular pressing for processing of tubular commercial purity-titanium. Journal of Materials Processing Technology, 2006, 173, 53-60.	3.1	63
51	Applicability of the groove pressing technique for grain refinement in commercial purity copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 337-340.	2.6	103
52	Production of ultrafine grain sizes in aluminium sheets by severe plastic deformation using the technique of groove pressing. Scripta Materialia, 2005, 52, 1229-1233.	2.6	130
53	Analysis of forming loads, microstructure development and mechanical property evolution during equal channel angular extrusion of a commercial grade aluminum alloy. Journal of Materials Processing Technology, 2003, 135, 59-67.	3.1	37
54	Development of microstructure and texture during high temperature equal channel angular extrusion of aluminium. Journal of Materials Processing Technology, 2001, 117, 169-177.	3.1	39

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55	The development of microstructure and the influence of processing route during equal channel angular drawing of pure aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 266, 241-249.	2.6	95
56	Microstructure development during equal channel angular drawing of Al at room temperature. Scripta Materialia, 1998, 39, 677-684.	2.6	65
57	Friction Stir Processing to Increase the Application Temperature of Rare Earth Magnesium Alloy AE42. Advanced Materials Research, 0, 622-623, 515-519.	0.3	1
58	Effect of Distance between Passes in Friction Stir Processing of Magnesium Alloy. Advanced Materials Research, 0, 585, 397-401.	0.3	5
59	An Investigation into the Influence of Interrupted Loading in Improving the Stretch-Flangeability of Dual Phase Steel. Defect and Diffusion Forum, 0, 414, 81-87.	0.4	2