Srinivasan Chandrasekar

List of Publications by Year
in descending order

40 papers	918 citations	430874 18 h-index	454955 30 g-index
42 all docs	42 docs citations	42 times ranked	545 citing authors

#	Article	IF	Citations
1	What Can Plastic Flow Fields Tell Us About Heat Sources in Deformation Processing?. Jom, 2022, 74, 535-546.	1.9	0
2	Enhancing surface quality in cutting of gummy metals using nanoscale organic films. CIRP Annals - Manufacturing Technology, 2022, 71, 93-96.	3.6	4
3	Mechanical Behavior and High Formability of Palm Leaf Materials. Advanced Energy and Sustainability Research, 2021, 2, 2000080.	5.8	6
4	Single-Step Shear-Based Deformation Processing of Electrical Conductor Wires. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2021, 143, .	2.2	5
5	Surface-Stress Induced Embrittlement of Metals. Nano Letters, 2021, 21, 9502-9508.	9.1	6
6	Diffusion of water in palm leaf materials. Journal of the Royal Society Interface, 2021, 18, 20210483.	3.4	2
7	Cutting of tantalum: Why it is so difficult and what can be done about it. International Journal of Machine Tools and Manufacture, 2020, 157, 103607.	13.4	22
8	Organic monolayers disrupt plastic flow in metals. Science Advances, 2020, 6, .	10.3	12
9	On the Cutting of Metals: A Mechanics Viewpoint. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, .	2.2	20
10	Direct <i>In Situ</i> Observation of Deformation Modes in Wedge Indentation of Metals. Materials Transactions, 2019, 60, 1442-1449.	1.2	4
11	Altering the Stability of Surface Plastic Flow via Mechanochemical Effects. Physical Review Applied, 2019, 11, .	3.8	10
12	Controlling segmentation in cutting of metals. CIRP Annals - Manufacturing Technology, 2019, 68, 41-44.	3.6	6
13	Response to â€˜Comment on â€œThe cutting of metals via plastic bucklingâ€•by Udupa et al. â€™. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180478.	2.1	0
14	A Mechanochemical Route to Cutting Highly Strain-Hardening Metals. Tribology Letters, 2019, 67, 1.	2.6	11
15	Material-Independent Mechanochemical Effect in the Deformation of Highly-Strain-Hardening Metals. Physical Review Applied, 2018, 10, .	3.8	24
16	Analyzing the effect of hydration on the wedge indentation fracture behavior of cortical bone. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 318-326.	3.1	6
17	Surface phenomena revealed by<i>in situ</i>imaging: studies from adhesion, wear and cutting. Surface Topography: Metrology and Properties, 2017, 5, 014002.	1.6	9
18	The cutting of metals via plastic buckling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160863.	2.1	27

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19	Sinuous flow and folding in metals: Implications for delamination wear and surface phenomena in sliding and cutting. Wear, 2017, 376-377, 1534-1541.	3.1	11
20	Folding in metal polycrystals: Microstructural origins and mechanics. Acta Materialia, 2017, 140, 67-78.	7.9	21
21	Sinuous Flow in Cutting of Metals. Physical Review Applied, 2017, 8, .	3.8	20
22	On the stability of plastic flow in cutting of metals. CIRP Annals - Manufacturing Technology, 2017, 66, 69-72.	3.6	27
23	Texture Development in High-Silicon Iron Sheet Produced by Simple Shear Deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3095-3108.	2.2	22
24	Stick-slip at soft adhesive interfaces mediated by slow frictional waves. Soft Matter, 2016, 12, 5265-5275.	2.7	35
25	Geometric flow control of shear bands by suppression of viscous sliding. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160167.	2.1	46
26	On control of flow instabilities in cutting of metals. CIRP Annals - Manufacturing Technology, 2015, 64, 49-52.	3.6	28
27	Sinuous flow in metals. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9828-9832.	7.1	66
28	<i>In situ</i> analysis of flow dynamics and deformation fields in cutting and sliding of metals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150194.	2.1	50
29	Rotation field in wedge indentation of metals. Journal of Materials Research, 2012, 27, 284-293.	2.6	4
30	Modes of deformation and weak boundary conditions in wedge indentation. MRS Communications, 2012, 2, 47-50.	1.8	9
31	Mesoscale Folding, Instability, and Disruption of Laminar Flow in Metal Surfaces. Physical Review Letters, 2012, 109, 106001.	7.8	89
32	Contact conditions at the chip-tool interface in machining. International Journal of Precision Engineering and Manufacturing, 2011, 12, 183-193.	2.2	16
33	InÂSitu Measurement of Fluid Film Thickness in Machining. Tribology Letters, 2007, 28, 39-44.	2.6	15
34	Severe plastic deformation (SPD) and nanostructured materials by machining. Journal of Materials Science, 2007, 42, 1529-1541.	3.7	71
35	Large strain deformation field in machining. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 1633-1643.	2.2	84
36	Prediction of stressâ€“strain relation using cone indentation: effect of friction. International Journal for Numerical Methods in Engineering, 2004, 60, 661-674.	2.8	10

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37	Strain Gradient Effect in Cone Indentation. Materials Research Society Symposia Proceedings, 2002, 741, 5351.	0.1	0
38	Polishing and Lapping Temperatures. Journal of Tribology, 1997, 119, 163-170.	1.9	33
39	Influence of Abrasive Properties on Residual Stresses in Lapped Ferrite and Alumina. Journal of the American Ceramic Society, 1990, 73, 1907-1911.	3.8	4
40	Effect of Residual Stresses on the Fracture of Ground Ceramics. Journal of the American Ceramic Society, 1989, 72, 1960-1966.	3.8	83