

Srinivasan Chandrasekar

List of Publications by Year in descending order

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Version: 2024-02-01

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	Mesoscale Folding, Instability, and Disruption of Laminar Flow in Metal Surfaces. <i>Physical Review Letters</i> , 2012, 109, 106001.	7.8	89
2	Large strain deformation field in machining. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 1633-1643.	2.2	84
3	Effect of Residual Stresses on the Fracture of Ground Ceramics. <i>Journal of the American Ceramic Society</i> , 1989, 72, 1960-1966.	3.8	83
4	Severe plastic deformation (SPD) and nanostructured materials by machining. <i>Journal of Materials Science</i> , 2007, 42, 1529-1541.	3.7	71
5	Sinuuous flow in metals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9828-9832.	7.1	66
6	<i>In situ</i> analysis of flow dynamics and deformation fields in cutting and sliding of metals. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150194.	2.1	50
7	Geometric flow control of shear bands by suppression of viscous sliding. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160167.	2.1	46
8	Stick-slip at soft adhesive interfaces mediated by slow frictional waves. <i>Soft Matter</i> , 2016, 12, 5265-5275.	2.7	35
9	Polishing and Lapping Temperatures. <i>Journal of Tribology</i> , 1997, 119, 163-170.	1.9	33
10	On control of flow instabilities in cutting of metals. <i>CIRP Annals - Manufacturing Technology</i> , 2015, 64, 49-52.	3.6	28
11	The cutting of metals via plastic buckling. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20160863.	2.1	27
12	On the stability of plastic flow in cutting of metals. <i>CIRP Annals - Manufacturing Technology</i> , 2017, 66, 69-72.	3.6	27
13	Material-Independent Mechanochemical Effect in the Deformation of Highly-Strain-Hardening Metals. <i>Physical Review Applied</i> , 2018, 10, .	3.8	24
14	Texture Development in High-Silicon Iron Sheet Produced by Simple Shear Deformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 3095-3108.	2.2	22
15	Cutting of tantalum: Why it is so difficult and what can be done about it. <i>International Journal of Machine Tools and Manufacture</i> , 2020, 157, 103607.	13.4	22
16	Folding in metal polycrystals: Microstructural origins and mechanics. <i>Acta Materialia</i> , 2017, 140, 67-78.	7.9	21
17	Sinuuous Flow in Cutting of Metals. <i>Physical Review Applied</i> , 2017, 8, .	3.8	20
18	On the Cutting of Metals: A Mechanics Viewpoint. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	2.2	20

#	ARTICLE	IF	CITATIONS
19	Contact conditions at the chip-tool interface in machining. International Journal of Precision Engineering and Manufacturing, 2011, 12, 183-193.	2.2	16
20	In-Situ Measurement of Fluid Film Thickness in Machining. Tribology Letters, 2007, 28, 39-44.	2.6	15
21	Organic monolayers disrupt plastic flow in metals. Science Advances, 2020, 6, .	10.3	12
22	Sinuuous 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
23	A Mechanochemical Route to Cutting Highly Strain-Hardening Metals. Tribology Letters, 2019, 67, 1.	2.6	11
24	Prediction of stress-strain relation using cone indentation: effect of friction. International Journal for Numerical Methods in Engineering, 2004, 60, 661-674.	2.8	10
25	Altering the Stability of Surface Plastic Flow via Mechanochemical Effects. Physical Review Applied, 2019, 11, .	3.8	10
26	Modes of deformation and weak boundary conditions in wedge indentation. MRS Communications, 2012, 2, 47-50.	1.8	9
27	Surface phenomena revealed by in situ imaging: studies from adhesion, wear and cutting. Surface Topography: Metrology and Properties, 2017, 5, 014002.	1.6	9
28	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
29	Controlling segmentation in cutting of metals. CIRP Annals - Manufacturing Technology, 2019, 68, 41-44.	3.6	6
30	Mechanical Behavior and High Formability of Palm Leaf Materials. Advanced Energy and Sustainability Research, 2021, 2, 2000080.	5.8	6
31	Surface-Stress Induced Embrittlement of Metals. Nano Letters, 2021, 21, 9502-9508.	9.1	6
32	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
33	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
34	Rotation field in wedge indentation of metals. Journal of Materials Research, 2012, 27, 284-293.	2.6	4
35	Direct & In Situ Observation of Deformation Modes in Wedge Indentation of Metals. Materials Transactions, 2019, 60, 1442-1449.	1.2	4
36	Enhancing surface quality in cutting of gummy metals using nanoscale organic films. CIRP Annals - Manufacturing Technology, 2022, 71, 93-96.	3.6	4

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37	Diffusion of water in palm leaf materials. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20210483.	3.4	2
38	Strain Gradient Effect in Cone Indentation. <i>Materials Research Society Symposia Proceedings</i> , 2002, 741, 5351.	0.1	0
39	Response to "Comment on "The cutting of metals via plastic buckling" by Udupa et al. ". <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20180478.	2.1	0
40	What Can Plastic Flow Fields Tell Us About Heat Sources in Deformation Processing?. <i>Jom</i> , 2022, 74, 535-546.	1.9	0