Sinisa Dj Mesarovic

List of Publications by Year
in descending order

51	1,806	394286	276775
papers	citations	19 h-index	41 g-index

54	54	54	1314
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Filling a hole by capillary flow of liquid metalâ€“equilibria and instabilities. Physics of Fluids, 2021, 33, .	1.6	7
2	Effect of processing parameters on microstructure in brazing of Alâ€“Si alloys. Journal of Crystal Growth, 2020, 530, 125287.	0.7	7
3	Transport Theorem for Spaces and Subspaces of Arbitrary Dimensions. Mathematics, 2020, 8, 899.	1.1	0
4	Interfacial energy as the driving force for diffusion bonding of ceramics. Acta Materialia, 2020, 186, 405-414.	3.8	19
5	Physical Foundations of Mesoscale Continua. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 1-50.	0.3	1
6	Dislocation Creep: Climb and Glide in the Lattice Continuum. Crystals, 2017, 7, 243.	1.0	17
7	(In)compressibility and parameter identification in phase field models for capillary flows. Theoretical and Applied Mechanics, 2017, 44, 189-214.	0.1	11
8	Dislocation Nucleation on Grain Boundaries: Low Angle Twist and Asymmetric Tilt Boundaries. Crystals, 2016, 6, 77.	1.0	12
9	Control of residual stresses in 2Si-B-3C-N and Nb joints by the Ag-Cu-Ti + Mo composite interlayer. Materials and Design, 2016, 99, 193-200.	3.3	29
10	Lattice continuum and diffusional creep. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160039.	1.0	8
11	Kinetics of the molten Alâ€“Si triple line movement during a brazed joint formation. Journal of Materials Science, 2016, 51, 1798-1812.	1.7	11
12	Size-dependent energy in crystal plasticity and continuum dislocation models. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140868.	1.0	20
13	Micromechanics of collective buckling in CNT turfs. Journal of the Mechanics and Physics of Solids, 2014, 72, 144-160.	2.3	21
14	Immersive 3D Visualization of the Collective Behavior of Particles and Crystal Dislocations Using Virtual Reality Technology. Modeling and Numerical Simulation of Material Science, 2014, 04, 79-93.	0.5	2
15	Micromechanics of Dilatancy, Critical State and Shear Bands in Dense Granular Matter. , 2013, , .		0
16	Phenomenological constitutive model for a CNT turf. International Journal of Solids and Structures, 2013, 50, 2224-2230.	1.3	10
17	Length Scale for Transmission of Rotations in Dense Granular Materials. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	1.1	11
18	Micromechanics of dilatancy and critical state in granular matter. Geotechnique Letters, 2012, 2, 61-66.	0.6	12

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19	Morphological instabilities in thin films: Evolution maps. Computational Materials Science, 2011, 50, 1030-1036.	1.4	32
20	Effect of the Compositional Strain on the Diffusive Interface Thickness and on the Phase Transformation in a Phase-Field Model for Binary Alloys. Journal of Phase Equilibria and Diffusion, 2011, 32, 302-308.	0.5	24
21	Acceleration of DEM algorithm for quasistatic processes. International Journal for Numerical Methods in Engineering, 2011, 86, 816-828.	1.5	9
22	Local and non-local behavior and coordinated buckling of CNT turfs. Carbon, 2011, 49, 1430-1438.	5.4	47
23	A Phase-Field â€“ Finite Element Model for Instabilities in Multilayer Thin Films. Materials Research Society Symposia Proceedings, 2011, 1297, 35.	0.1	0
24	Finite element method for conserved phase fields: Stress-mediated diffusional phase transformation. Journal of Computational Physics, 2010, 229, 9135-9149.	1.9	34
25	Thermodynamic coarsening of dislocation mechanics and the size-dependent continuum crystal plasticity. Journal of the Mechanics and Physics of Solids, 2010, 58, 311-329.	2.3	38
26	Energies and distributions of dislocations in stacked pile-ups. International Journal of Solids and Structures, 2010, 47, 1144-1153.	1.3	23
27	Plasticity of crystals and interfaces: From discrete dislocations to size-dependent continuum theory. Theoretical and Applied Mechanics, 2010, 37, 289-332.	0.1	7
28	Adhesive contact of elastic spheres revisited: numerical models and scaling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 2231-2249.	1.0	15
29	Transition between the models in multiscale simulations: Continua and granular materials. AIP Conference Proceedings, 2008, , .	0.3	1
30	The coordinated buckling of carbon nanotube turfs under uniform compression. Nanotechnology, 2008, 19, 175704.	1.3	97
31	Finite Element Modeling of a Diffusion-Controlled Phase Transformation in Thin Film. , 2008, , .		1
32	Electrostatic Shielding in Patterned Carbon Nanotube Field Emission Arrays. Journal of Physical Chemistry C, 2007, 111, 7514-7520.	1.5	24
33	Mechanical behavior of a carbon nanotube turf. Scripta Materialia, 2007, 56, 157-160.	2.6	93
34	Micromechanics of hardening of elasticâ€“plastic crystals with elastic inclusions: I â€“ Dilute concentration. International Journal of Plasticity, 2007, 23, 1901-1917.	4.1	15
35	Nonlinear vibrations of a pre-stressed laminated thin plate. International Journal of Mechanical Sciences, 2006, 48, 451-459.	3.6	5
36	Mechanical compliance of photolithographically defined vertically aligned carbon nanotube turf. Journal of Materials Science, 2006, 41, 7872-7878.	1.7	76

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37	Energy, configurational forces and characteristic lengths associated with the continuum description of geometrically necessary dislocations. International Journal of Plasticity, 2005, 21, 1855-1889.	4.1	29
38	Minimal kinematic boundary conditions for simulations of disordered microstructures. Philosophical Magazine, 2005, 85, 65-78.	0.7	74
39	Effect of Diameter on Electron Field Emission of Carbon Nanotube Bundles. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	3
40	Induced crystallization as a nonlithographic pattern transfer technique for nanofabrication. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 2793.	1.6	1
41	Frictionless indentation of dissimilar elasticâ€“plastic spheres. International Journal of Solids and Structures, 2000, 37, 7071-7091.	1.3	163
42	Adhesive contact of elasticâ€“plastic spheres. Journal of the Mechanics and Physics of Solids, 2000, 48, 2009-2033.	2.3	138
43	Spherical indentation of elasticâ€“plastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 2707-2728.	1.0	377
44	The influence of pre-existing dislocations on cleavage crack propagation behavior in crystals. Journal of the Mechanics and Physics of Solids, 1997, 45, 211-223.	2.3	11
45	Continuum aspects of directionally dependent cracking of an interface between copper and alumina crystals. Mechanics of Materials, 1996, 23, 271-286.	1.7	17
46	Dynamic strain aging and plastic instabilities. Journal of the Mechanics and Physics of Solids, 1995, 43, 671-700.	2.3	115
47	Directional dependence of corrosion fatigue of iron-silicon bicrystals. Acta Metallurgica Et Materialia, 1995, 43, 3837-3849.	1.9	16
48	Dynamic Behavior of Nonlinear Cable System. II. Journal of Engineering Mechanics - ASCE, 1992, 118, 904-920.	1.6	7
49	Probability of Crack Growth in Poisson Field of Penny Cracks. Journal of Engineering Mechanics - ASCE, 1992, 118, 961-978.	1.6	1
50	Dynamic Behavior of Nonlinear Cable System. I. Journal of Engineering Mechanics - ASCE, 1992, 118, 890-903.	1.6	9
51	Investigation of Phase Transformation in Thin Film Using Finite Element Method. Solid State Phenomena, 0, 150, 29-41.	0.3	19