

Surya Kalidindi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/913990/publications.pdf>

Version: 2024-02-01

327
papers

19,505
citations

8159

76
h-index

14702

127
g-index

335
all docs

335
docs citations

335
times ranked

8593
citing authors

#	ARTICLE	IF	CITATIONS
1	Convolutional Neural Networks for the Localization of Plastic Velocity Gradient Tensor in Polycrystalline Microstructures. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2022, 144, .	0.8	2
2	How important is microstructural feature selection for data-driven structure-property mapping?. <i>MRS Communications</i> , 2022, 12, 95-103.	0.8	5
3	In Situ Transmission Electron Microscopy: Signal processing challenges and examples. <i>IEEE Signal Processing Magazine</i> , 2022, 39, 89-103.	4.6	3
4	A hybrid approach for the efficient computation of polycrystalline yield loci with the accuracy of the crystal plasticity finite element method. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2022, 30, 025015.	0.8	7
5	Machine learning-enabled feature classification of evaporation-driven multi-scale 3D printing. <i>Flexible and Printed Electronics</i> , 2022, 7, 014011.	1.5	1
6	Biomaterialomics: Data science-driven pathways to develop fourth-generation biomaterials. <i>Acta Materialia</i> , 2022, 143, 1-25.	4.1	42
7	Prediction of the Electron Density of States for Crystalline Compounds with Atomistic Line Graph Neural Networks (ALIGNN). <i>Jom</i> , 2022, 74, 1395-1405.	0.9	17
8	Development of a Robust CNN Model for Capturing Microstructure-Property Linkages and Building Property Closures Supporting Material Design. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	14
9	Digital Twins for Materials. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	15
10	Multiresolution investigations of thermally aged steels using spherical indentation stress-strain protocols and image analysis. <i>Mechanics of Materials</i> , 2022, 167, 104265.	1.7	3
11	Efficient generation of anisotropic N-field microstructures from 2-point statistics using multi-output Gaussian random fields. <i>Acta Materialia</i> , 2022, 232, 117927.	3.8	18
12	Bayesian analysis of parametric uncertainties and model form probabilities for two different crystal plasticity models of lamellar grains in β Titanium alloys. <i>International Journal of Plasticity</i> , 2022, 154, 103289.	4.1	15
13	High-throughput characterization of the cyclic response of Ti-6Al-4V using spherical microindentation stress-strain protocols. <i>International Journal of Fatigue</i> , 2022, 161, 106921.	2.8	0
14	Machine learning-enabled feature classification of evaporation-driven multi-scale 3D printing.. <i>Flexible and Printed Electronics</i> , 2022, 7, .	1.5	0
15	Study of a Bimodal β Ti Alloy Microstructure Using Multi-Resolution Spherical Indentation Stress-Strain Protocols. <i>Journal of Composites Science</i> , 2022, 6, 162.	1.4	2
16	Digital Protocols for Statistical Quantification of Microstructures From Microscopy Images of Polycrystalline Nickel-Based Superalloys. <i>Integrating Materials and Manufacturing Innovation</i> , 2022, 11, 313-326.	1.2	6
17	Bayesian estimation of single ply anisotropic elastic constants from spherical indentations on multi-laminate polymer-matrix fiber-reinforced composite samples. <i>Meccanica</i> , 2021, 56, 1575-1586.	1.2	11
18	Texture-sensitive prediction of micro-spring performance using Gaussian process models calibrated to finite element simulations. <i>Materials and Design</i> , 2021, 197, 109198.	3.3	7

#	ARTICLE	IF	CITATIONS
19	Correlation of Measured Load-Displacement Curves in Small Punch Tests with Tensile Stress-Strain Curves. <i>Acta Materialia</i> , 2021, 204, 116501.	3.8	25
20	A machine learning framework for the temporal evolution of microstructure during static recrystallization of polycrystalline materials simulated by cellular automaton. <i>Computational Materials Science</i> , 2021, 188, 110132.	1.4	25
21	Analysis of Fatigue Indicator Parameters for Ti-6Al-4V microstructures using extreme value statistics in the HCF regime. <i>International Journal of Fatigue</i> , 2021, 145, 106096.	2.8	12
22	Critical Comparison of Spherical Microindentation, Small Punch Test, and Uniaxial Tensile Testing for Selective Laser Melted Inconel 718. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1061.	1.3	9
23	Mechanical Responses of Primary- α Ti Grains in Polycrystalline Samples: Part I—Measurements of Spherical Indentation Stress-Strain Curves. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 82-98.	1.2	2
24	Mechanical Responses of Primary- α Ti Grains in Polycrystalline Samples: Part II—Bayesian Estimation of Crystal-Level Elastic-Plastic Mechanical Properties from Spherical Indentation Measurements. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 99-114.	1.2	9
25	Critical comparison of image analysis workflows for quantitative cell morphological evaluation in assessing cell response to biomaterials. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 034101.	1.7	2
26	Addressing biases in spectral databases for increasing accuracy and computational efficiency of crystal plasticity computations. <i>International Journal of Plasticity</i> , 2021, 138, 102945.	4.1	4
27	Digital Representation and Quantification of Discrete Dislocation Structures. <i>Jom</i> , 2021, 73, 2143-2158.	0.9	5
28	Automated Image Processing Workflow for Morphological Analysis of Fluorescence Microscopy Cell Images. <i>Jom</i> , 2021, 73, 2356.	0.9	7
29	Autonomous Development of a Machine-Learning Model for the Plastic Response of Two-Phase Composites from Micromechanical Finite Element Models. <i>Jom</i> , 2021, 73, 2085-2095.	0.9	15
30	Recurrent localization networks applied to the Lippmann-Schwinger equation. <i>Computational Materials Science</i> , 2021, 192, 110356.	1.4	4
31	Decoding defect statistics from diffractograms via machine learning. <i>Npj Computational Materials</i> , 2021, 7, .	3.5	6
32	Machine learning approaches for feature engineering of the crystal structure: Application to the prediction of the formation energy of cubic compounds. <i>Physical Review Materials</i> , 2021, 5, .	0.9	6
33	Materials graph ontology. <i>Materials Letters</i> , 2021, 295, 129836.	1.3	7
34	Evaluation of the influence of B and Nb microalloying on the microstructure and strength of 18% Ni maraging steels (C350) using hardness, spherical indentation and tensile tests. <i>Acta Materialia</i> , 2021, 215, 117071.	3.8	7
35	Carbon stoichiometry and mechanical properties of high entropy carbides. <i>Acta Materialia</i> , 2021, 215, 117051.	3.8	28
36	A Generalized and Modular Framework for Digital Generation of Composite Microstructures. <i>Journal of Composites Science</i> , 2021, 5, 211.	1.4	8

#	ARTICLE	IF	CITATIONS
37	Lamellar Level Correlations Between Mechanical Behavior and Composition in Mouse Bone. <i>Jom</i> , 2021, 73, 3034-3045.	0.9	1
38	Microstructure Quantification and Multiresolution Mechanical Characterization of Ti-Based Bulk Metallic Glass-Matrix Composites. <i>Jom</i> , 2021, 73, 3312-3322.	0.9	4
39	Reduced-order models for microstructure-sensitive effective thermal conductivity of woven ceramic matrix composites with residual porosity. <i>Composite Structures</i> , 2021, 274, 114399.	3.1	20
40	A generalizable artificial intelligence tool for identification and correction of self-supporting structures in additive manufacturing processes. <i>Additive Manufacturing</i> , 2021, 46, 102191.	1.7	7
41	Semi-automatic image analysis of particle morphology of cellulose nanocrystals. <i>Cellulose</i> , 2021, 28, 2183-2201.	2.4	13
42	New Insights into the Microstructural Changes During the Processing of Dual-Phase Steels from Multiresolution Spherical Indentation Stress–Strain Protocols. <i>Metals</i> , 2020, 10, 18.	1.0	13
43	Voxelized Atomic Structure Potentials: Predicting Atomic Forces with the Accuracy of Quantum Mechanics Using Convolutional Neural Networks. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9093-9099.	2.1	10
44	Feature engineering of material structure for AI-based materials knowledge systems. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	39
45	Evaluation of Ti–Mn Alloys for Additive Manufacturing Using High-Throughput Experimental Assays and Gaussian Process Regression. <i>Materials</i> , 2020, 13, 4641.	1.3	12
46	Reduced-Order Models for Ranking Damage Initiation in Dual-Phase Composites Using Bayesian Neural Networks. <i>Jom</i> , 2020, 72, 4359-4369.	0.9	4
47	Mining the Correlations Between Optical Micrographs and Mechanical Properties of Cold-Rolled HSLA Steels Using Machine Learning Approaches. <i>Integrating Materials and Manufacturing Innovation</i> , 2020, 9, 240-256.	1.2	15
48	A digital workflow for learning the reduced-order structure-property linkages for permeability of porous membranes. <i>Acta Materialia</i> , 2020, 195, 668-680.	3.8	16
49	Editorial: Machine Learning and Data Mining in Materials Science. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	16
50	High-Throughput Exploration of the Process Space in 18% Ni (350) Maraging Steels via Spherical Indentation Stress–Strain Protocols and Gaussian Process Models. <i>Integrating Materials and Manufacturing Innovation</i> , 2020, 9, 199-212.	1.2	10
51	A Framework for the Systematic Design of Segmentation Workflows. <i>Integrating Materials and Manufacturing Innovation</i> , 2020, 9, 70-88.	1.2	14
52	Computationally Efficient Crystal Plasticity Simulations Using Spectral Databases. , 2020, , 1685-1710.		0
53	Data Analytics on Phase-Field Simulation Datasets. , 2020, , 177-204.		0
54	Localization models for the plastic response of polycrystalline materials using the material knowledge systems framework. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019, 27, 074008.	0.8	8

#	ARTICLE	IF	CITATIONS
55	Application of Gaussian process regression models for capturing the evolution of microstructure statistics in aging of nickel-based superalloys. <i>Acta Materialia</i> , 2019, 178, 45-58.	3.8	58
56	Probing Local Mechanical Properties in Polymer-Ceramic Hybrid Acetabular Sockets Using Spherical Indentation Stress-Strain Protocols. <i>Integrating Materials and Manufacturing Innovation</i> , 2019, 8, 257-272.	1.2	6
57	Data Infrastructure Elements in Support of Accelerated Materials Innovation: ELA, PyMKS, and MATIN. <i>Integrating Materials and Manufacturing Innovation</i> , 2019, 8, 441-454.	1.2	12
58	A Bayesian Framework for the Estimation of the Single Crystal Elastic Parameters From Spherical Indentation Stress-Strain Measurements. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	22
59	Deep learning based domain knowledge integration for small datasets: Illustrative applications in materials informatics. , 2019, , .		9
60	Bayesian Sequential Design of Experiments for Extraction of Single-Crystal Material Properties from Spherical Indentation Measurements on Polycrystalline Samples. <i>Jom</i> , 2019, 71, 2671-2679.	0.9	15
61	Gaussian-Process-Driven Adaptive Sampling for Reduced-Order Modeling of Texture Effects in Polycrystalline Alpha-Ti. <i>Jom</i> , 2019, 71, 2646-2656.	0.9	15
62	A Bayesian framework for materials knowledge systems. <i>MRS Communications</i> , 2019, 9, 518-531.	0.8	23
63	A Review of the Application of Machine Learning and Data Mining Approaches in Continuum Materials Mechanics. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	223
64	Periprosthetic biomechanical response towards dental implants, with functional gradation, for single/multiple dental loss. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 94, 249-258.	1.5	20
65	A Comparative Study of the Efficacy of Local/Global and Parametric/Nonparametric Machine Learning Methods for Establishing Structure-Property Linkages in High-Contrast 3D Elastic Composites. <i>Integrating Materials and Manufacturing Innovation</i> , 2019, 8, 67-81.	1.2	15
66	Application of Gaussian process autoregressive models for capturing the time evolution of microstructure statistics from phase-field simulations for sintering of polycrystalline ceramics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019, 27, 084006.	0.8	22
67	Study of Local Mechanical Responses in an Epoxy-Carbon Fiber Laminate Composite Using Spherical Indentation Stress-Strain Protocols. <i>Integrating Materials and Manufacturing Innovation</i> , 2019, 8, 495-508.	1.2	2
68	Establishing structure-property localization linkages for elastic deformation of three-dimensional high contrast composites using deep learning approaches. <i>Acta Materialia</i> , 2019, 166, 335-345.	3.8	125
69	Materials knowledge system for nonlinear composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 180-196.	3.4	34
70	Reduced-order microstructure-sensitive protocols to rank-order the transition fatigue resistance of polycrystalline microstructures. <i>International Journal of Fatigue</i> , 2019, 119, 1-10.	2.8	33
71	Materials informatics. <i>Journal of Intelligent Manufacturing</i> , 2019, 30, 2307-2326.	4.4	90
72	Spherical Nanoindentation Stress-Strain Analysis of Ion-Irradiated Tungsten. <i>Minerals, Metals and Materials Series</i> , 2019, , 617-635.	0.3	0

#	ARTICLE	IF	CITATIONS
73	Computationally efficient predictions of crystal plasticity based forming limit diagrams using a spectral database. <i>International Journal of Plasticity</i> , 2018, 103, 168-187.	4.1	25
74	Material structure-property linkages using three-dimensional convolutional neural networks. <i>Acta Materialia</i> , 2018, 146, 76-84.	3.8	214
75	Quantifying the mechanical effects of He, W and He+W ion irradiation on tungsten with spherical nanoindentation. <i>Journal of Materials Science</i> , 2018, 53, 5296-5316.	1.7	39
76	Multiresolution mechanical characterization of hierarchical materials: Spherical nanoindentation on martensitic Fe-Ni-C steels. <i>Acta Materialia</i> , 2018, 153, 257-269.	3.8	26
77	Estimating mechanical properties from spherical indentation using Bayesian approaches. <i>Materials and Design</i> , 2018, 147, 92-105.	3.3	61
78	Phonon transport properties of two-dimensional electrified Ca ₂ N: A first-principles study. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	11
79	Computationally Efficient Crystal Plasticity Simulations Using Spectral Databases. , 2018, , 1-26.		0
80	Application of chord length distributions and principal component analysis for quantification and representation of diverse polycrystalline microstructures. <i>Materials Characterization</i> , 2018, 145, 671-685.	1.9	40
81	Data-Driven Materials Investigations: The Next Frontier in Understanding and Predicting Fatigue Behavior. <i>Jom</i> , 2018, 70, 1143-1146.	0.9	22
82	Deep learning approaches for mining structure-property linkages in high contrast composites from simulation datasets. <i>Computational Materials Science</i> , 2018, 151, 278-287.	1.4	219
83	Data-driven reduced-order models for rank-ordering the high cycle fatigue performance of polycrystalline microstructures. <i>Materials and Design</i> , 2018, 154, 170-183.	3.3	49
84	Reduced-Order Microstructure-Sensitive Models for Damage Initiation in Two-Phase Composites. <i>Integrating Materials and Manufacturing Innovation</i> , 2018, 7, 97-115.	1.2	18
85	A new framework for rotationally invariant two-point spatial correlations in microstructure datasets. <i>Acta Materialia</i> , 2018, 158, 53-64.	3.8	36
86	Spherical Nanoindentation Stress-Strain Analysis of Ion-Irradiated Tungsten. <i>Minerals, Metals and Materials Series</i> , 2018, , 617-635.	0.3	1
87	Application of spherical indentation and the materials knowledge system framework to establishing microstructure-yield strength linkages from carbon steel scoops excised from high-temperature exposed components. <i>Acta Materialia</i> , 2018, 144, 758-767.	3.8	45
88	Structure-processing correlations and mechanical properties in freeze-cast Ti-6Al-4V with highly aligned porosity and a lightweight Ti-6Al-4V-PMMA composite with excellent energy absorption capability. <i>Acta Materialia</i> , 2017, 132, 182-192.	3.8	32
89	Crystal Plasticity Modeling of Microstructure Evolution and Mechanical Fields During Processing of Metals Using Spectral Databases. <i>Jom</i> , 2017, 69, 830-838.	0.9	17
90	Analytics on large microstructure datasets using two-point spatial correlations: Coarsening of dendritic structures. <i>Acta Materialia</i> , 2017, 132, 374-388.	3.8	20

#	ARTICLE	IF	CITATIONS
91	Materials Knowledge Systems in Python—a Data Science Framework for Accelerated Development of Hierarchical Materials. <i>Integrating Materials and Manufacturing Innovation</i> , 2017, 6, 36-53.	1.2	67
92	Data science approaches for microstructure quantification and feature identification in porous membranes. <i>Journal of Membrane Science</i> , 2017, 540, 88-97.	4.1	39
93	Extracting knowledge from molecular mechanics simulations of grain boundaries using machine learning. <i>Acta Materialia</i> , 2017, 133, 100-108.	3.8	44
94	Extraction of Process-Structure Evolution Linkages from X-ray Scattering Measurements Using Dimensionality Reduction and Time Series Analysis. <i>Integrating Materials and Manufacturing Innovation</i> , 2017, 6, 147-159.	1.2	25
95	Data-driven reduced order models for effective yield strength and partitioning of strain in multiphase materials. <i>Journal of Computational Physics</i> , 2017, 346, 242-261.	1.9	50
96	Context Aware Machine Learning Approaches for Modeling Elastic Localization in Three-Dimensional Composite Microstructures. <i>Integrating Materials and Manufacturing Innovation</i> , 2017, 6, 160-171.	1.2	28
97	Process-Structure Linkages Using a Data Science Approach: Application to Simulated Additive Manufacturing Data. <i>Integrating Materials and Manufacturing Innovation</i> , 2017, 6, 54-68.	1.2	89
98	Reduced-order structure-property linkages for polycrystalline microstructures based on 2-point statistics. <i>Acta Materialia</i> , 2017, 129, 428-438.	3.8	123
99	Estimating the slip resistance from spherical nanoindentation and orientation measurements in polycrystalline samples of cubic metals. <i>International Journal of Plasticity</i> , 2017, 92, 19-30.	4.1	35
100	Extraction of reduced-order process-structure linkages from phase-field simulations. <i>Acta Materialia</i> , 2017, 124, 182-194.	3.8	83
101	Mechanical Characterization of Mesoscale Interfaces Using Indentation Techniques. <i>Jom</i> , 2017, 69, 22-29.	0.9	8
102	Prediction of microscale plastic strain rate fields in two-phase composites subjected to an arbitrary macroscale strain rate using the materials knowledge system framework. <i>Acta Materialia</i> , 2017, 141, 230-240.	3.8	15
103	Probing nanoscale damage gradients in ion-irradiated metals using spherical nanoindentation. <i>Scientific Reports</i> , 2017, 7, 11918.	1.6	35
104	Strategies for rapid parametric assessment of microstructure-sensitive fatigue for HCP polycrystals. <i>International Journal of Fatigue</i> , 2017, 104, 231-242.	2.8	37
105	Solidification in 4D: from Dendrites to Eutectics. <i>Microscopy and Microanalysis</i> , 2017, 23, 320-321.	0.2	1
106	Development of high throughput assays for establishing process-structure-property linkages in multiphase polycrystalline metals: Application to dual-phase steels. <i>Acta Materialia</i> , 2017, 123, 55-69.	3.8	98
107	Microstructure-based knowledge systems for capturing process-structure evolution linkages. <i>Current Opinion in Solid State and Materials Science</i> , 2017, 21, 129-140.	5.6	31
108	Microstructure-based knowledge systems for capturing process-structure evolution linkages. <i>Acta Materialia</i> , 2017, 21, .	3.8	0

#	ARTICLE	IF	CITATIONS
109	On capturing the grain-scale elastic and plastic anisotropy of alpha-Ti with spherical nanoindentation and electron back-scattered diffraction. <i>Acta Materialia</i> , 2016, 117, 23-34.	3.8	55
110	Quantification and classification of microstructures in ternary eutectic alloys using 2-point spatial correlations and principal component analyses. <i>Acta Materialia</i> , 2016, 110, 131-141.	3.8	69
111	Nacre-like hybrid films: Structure, properties, and the effect of relative humidity. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 55, 140-150.	1.5	23
112	Correlation of spherical nanoindentation stress-strain curves to simple compression stress-strain curves for elastic-plastic isotropic materials using finite element models. <i>Acta Materialia</i> , 2016, 112, 295-302.	3.8	129
113	The materials innovation ecosystem: A key enabler for the Materials Genome Initiative. <i>MRS Bulletin</i> , 2016, 41, 326-337.	1.7	71
114	Mechanical characterization of Ti-6Al-4V titanium alloy at multiple length scales using spherical indentation stress-strain measurements. <i>Materials and Design</i> , 2016, 111, 463-472.	3.3	48
115	High throughput exploration of process-property linkages in Al-6061 using instrumented spherical microindentation and microstructurally graded samples. <i>Integrating Materials and Manufacturing Innovation</i> , 2016, 5, 192-211.	1.2	48
116	Efficient computation of the angularly resolved chord length distributions and lineal path functions in large microstructure datasets. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016, 24, 075002.	0.8	36
117	Vision for Data and Informatics in the Future Materials Innovation Ecosystem. <i>Jom</i> , 2016, 68, 2126-2137.	0.9	58
118	Role of materials data science and informatics in accelerated materials innovation. <i>MRS Bulletin</i> , 2016, 41, 596-602.	1.7	42
119	Analytics for microstructure datasets produced by phase-field simulations. <i>Acta Materialia</i> , 2016, 103, 192-203.	3.8	75
120	Investigations of orientation and length scale effects on micromechanical responses in polycrystalline zirconium using spherical nanoindentation. <i>Scripta Materialia</i> , 2016, 113, 241-245.	2.6	22
121	Versatile algorithms for the computation of 2-point spatial correlations in quantifying material structure. <i>Integrating Materials and Manufacturing Innovation</i> , 2016, 5, 1-15.	1.2	111
122	Studies of grain boundary regions in deformed polycrystalline aluminum using spherical nanoindentation. <i>International Journal of Plasticity</i> , 2016, 81, 87-101.	4.1	65
123	Effect of microstructure on oxygen rich layer evolution and its impact on fatigue life during high-temperature application of α/β titanium. <i>Acta Materialia</i> , 2016, 107, 377-389.	3.8	51
124	Microstructure taxonomy based on spatial correlations: Application to microstructure coarsening. <i>Acta Materialia</i> , 2016, 108, 176-185.	3.8	13
125	Statistical construction of 3-D microstructures from 2-D exemplars collected on oblique sections. <i>Acta Materialia</i> , 2016, 102, 136-148.	3.8	40
126	Microstructure Function. , 2015, , 33-73.		1

#	ARTICLE	IF	CITATIONS
127	Statistical Quantification of Material Structure. , 2015, , 75-110.		1
128	Reduced-Order Representations of Spatial Correlations. , 2015, , 111-127.		0
129	Generalized Composite Theories. , 2015, , 129-143.		0
130	Structureâ€“Property Linkages. , 2015, , 145-189.		3
131	Processâ€“Structure Linkages. , 2015, , 191-205.		0
132	Materials Innovation Cyberinfrastructure. , 2015, , 207-212.		0
133	In situ X-ray nanotomography of metal surfaces during electropolishing. Scientific Reports, 2015, 5, 15257.	1.6	4
134	Machine learning approaches for elastic localization linkages in high-contrast composite materials. Integrating Materials and Manufacturing Innovation, 2015, 4, 192-208.	1.2	56
135	Representation and calibration of elastic localization kernels for a broad class of cubic polycrystals. Acta Materialia, 2015, 94, 26-35.	3.8	50
136	Grain-scale measurement of slip resistances in aluminum polycrystals using spherical nanoindentation. Acta Materialia, 2015, 90, 27-36.	3.8	46
137	Application of data science tools to quantify and distinguish between structures and models in molecular dynamics datasets. Nanotechnology, 2015, 26, 344006.	1.3	35
138	Materials Data Science: Current Status and Future Outlook. Annual Review of Materials Research, 2015, 45, 171-193.	4.3	198
139	Spherical nanoindentation stressâ€“strain curves. Materials Science and Engineering Reports, 2015, 91, 1-36.	14.8	255
140	Structureâ€“property linkages using a data science approach: Application to a non-metallic inclusion/steel composite system. Acta Materialia, 2015, 91, 239-254.	3.8	160
141	Data science and cyberinfrastructure: critical enablers for accelerated development of hierarchical materials. International Materials Reviews, 2015, 60, 150-168.	9.4	85
142	Crystal plasticity finite element simulations using a database of discrete Fourier transforms. International Journal of Plasticity, 2015, 66, 71-84.	4.1	47
143	Materials, Data, and Informatics. , 2015, , 1-32.		4
144	Calibrated Localization Relationships for Polycrystalline Aggregates by Using Materials Knowledge System. , 2015, , 221-228.		0

#	ARTICLE	IF	CITATIONS
145	Understanding pop-ins in spherical nanoindentation. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	51
146	Workflow for integrating mesoscale heterogeneities in materials structure with process simulation of titanium alloys. <i>Integrating Materials and Manufacturing Innovation</i> , 2014, 3, 322-343.	1.2	17
147	Dependence of mechanical properties on crystal orientation of semi-crystalline polyethylene structures. <i>Polymer</i> , 2014, 55, 4248-4257.	1.8	28
148	Extracting single-crystal elastic constants from polycrystalline samples using spherical nanoindentation and orientation measurements. <i>Acta Materialia</i> , 2014, 79, 108-116.	3.8	45
149	Calibrated localization relationships for elastic response of polycrystalline aggregates. <i>Acta Materialia</i> , 2014, 81, 151-160.	3.8	71
150	A data-driven approach to establishing microstructure-property relationships in porous transport layers of polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2014, 245, 144-153.	4.0	72
151	Strong cube recrystallization texture in silicon steel by twin-roll casting process. <i>Acta Materialia</i> , 2014, 76, 106-117.	3.8	145
152	Mechanical characterization of grain boundaries using nanoindentation. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 196-204.	5.6	59
153	Exploration of data science techniques to predict fatigue strength of steel from composition and processing parameters. <i>Integrating Materials and Manufacturing Innovation</i> , 2014, 3, 90-108.	1.2	170
154	Influence of deformation twinning on static annealing of AZ31 Mg alloy. <i>Acta Materialia</i> , 2013, 61, 5966-5978.	3.8	161
155	Resolving macro- and micro-porous layer interaction in polymer electrolyte fuel cells using focused ion beam and X-ray computed tomography. <i>Electrochimica Acta</i> , 2013, 87, 201-212.	2.6	66
156	Novel microstructure quantification framework for databasing, visualization, and analysis of microstructure data. <i>Integrating Materials and Manufacturing Innovation</i> , 2013, 2, 54-80.	1.2	98
157	Effect of the continuous stiffness measurement on the mechanical properties extracted using spherical nanoindentation. <i>Acta Materialia</i> , 2013, 61, 3744-3751.	3.8	50
158	Key computational modeling issues in Integrated Computational Materials Engineering. <i>CAD Computer Aided Design</i> , 2013, 45, 4-25.	1.4	267
159	Microstructure Informatics. , 2013, , 443-466.		7
160	Microstructure-Driven Analysis of Two-Phase Transport in Diffusion Media of PEFCs. <i>ECS Transactions</i> , 2013, 50, 513-519.	0.3	2
161	Morphological Analyses of Polymer Electrolyte Fuel Cell Electrodes with Nano-scale Computed Tomography Imaging. <i>Fuel Cells</i> , 2013, 13, 935-945.	1.5	42
162	Tensors and Rotations. , 2013, , 23-44.		2

#	ARTICLE	IF	CITATIONS
163	Spectral Representation. , 2013, , 45-65.		0
164	Description of the Microstructure. , 2013, , 67-87.		1
165	Spectral Representation of Microstructure. , 2013, , 89-109.		0
166	Symmetry in Microstructure Representation. , 2013, , 111-125.		0
167	Structureâ€“Property Relations. , 2013, , 127-170.		2
168	Homogenization Theories. , 2013, , 171-181.		0
169	Microstructure Hull and Closures. , 2013, , 183-194.		0
170	Design for Performance Optimization. , 2013, , 195-235.		17
171	Microstructure Evolution by Processing. , 2013, , 237-248.		0
172	Higher-Order Microstructure Representation. , 2013, , 249-268.		1
173	Higher-Order Homogenization. , 2013, , 269-301.		0
174	Second-Order Hull, Property Closure, and Design. , 2013, , 303-330.		0
175	Higher-Order Models of Deformation Processing. , 2013, , 331-340.		0
176	Electron Backscatter Diffraction Microscopy and Basic Stereology. , 2013, , 341-371.		6
177	Computationally Efficient, Fully Coupled Multiscale Modeling of Materials Phenomena Using Calibrated Localization Linkages. ISRN Materials Science, 2012, 2012, 1-13.	1.0	22
178	3-D Microstructure Analysis of Fuel Cell Materials: Spatial Distributions of Tortuosity, Void Size and Diffusivity. Journal of the Electrochemical Society, 2012, 159, B299-B307.	1.3	85
179	Estimating the response of polycrystalline materials using sets of weighted statistical volume elements. Acta Materialia, 2012, 60, 5284-5299.	3.8	54
180	Assessment of lamellar level properties in mouse bone utilizing a novel spherical nanoindentation data analysis method. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 13, 102-117.	1.5	35

#	ARTICLE	IF	CITATIONS
181	Microstructure Evolution during Roller Hemming of AZ31B Magnesium Sheet. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3824-3833.	1.1	6
182	Multi-scale modeling of the elastic response of a structural component made from a composite material using the materials knowledge system. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 055001.	0.8	22
183	Critical evaluation of the indentation data analyses methods for the extraction of isotropic uniaxial mechanical properties using finite element models. Acta Materialia, 2012, 60, 3943-3952.	3.8	82
184	Selection of representative volume elements for pore-scale analysis of transport in fuel cell materials. Journal of Power Sources, 2012, 197, 168-179.	4.0	71
185	Studying grain boundary regions in polycrystalline materials using spherical nano-indentation and orientation imaging microscopy. Journal of Materials Science, 2012, 47, 815-823.	1.7	66
186	A Representative Volume Element Approach for Pore-Scale Modeling of Fuel Cell Materials. ECS Transactions, 2011, 41, 131-139.	0.3	1
187	Microstructure Analysis Tools for Quantification of Key Structural Properties of Fuel Cell Materials. ECS Transactions, 2011, 41, 679-687.	0.3	3
188	Understanding and visualizing microstructure and microstructure variance as a stochastic process. Acta Materialia, 2011, 59, 6387-6400.	3.8	122
189	Measuring the dynamic mechanical response of hydrated mouse bone by nanoindentation. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 34-43.	1.5	62
190	Formulation and calibration of higher-order elastic localization relationships using the MKS approach. Acta Materialia, 2011, 59, 4595-4605.	3.8	66
191	Representation and computational structure-property relations of random media. Jom, 2011, 63, 45-51.	0.9	47
192	Microstructure informatics using higher-order statistics and efficient data-mining protocols. Jom, 2011, 63, 34-41.	0.9	138
193	A new framework for computationally efficient structure-structure evolution linkages to facilitate high-fidelity scale bridging in multi-scale materials models. Acta Materialia, 2011, 59, 699-707.	3.8	62
194	Microstructure Evolution during Roller Hemming of AZ31B Magnesium Sheet. , 2011, , 389-393.		0
195	Multi-scale modeling of elastic response of three-dimensional voxel-based microstructure datasets using novel DFT-based knowledge systems. Acta Materialia, 2010, 58, 2716-2725.	3.8	68
196	Microstructure sensitive design for performance optimization. Progress in Materials Science, 2010, 55, 477-562.	16.0	326
197	Building texture evolution networks for deformation processing of polycrystalline fcc metals using spectral approaches: Applications to process design for targeted performance. International Journal of Plasticity, 2010, 26, 1183-1194.	4.1	79
198	Optimized structure based representative volume element sets reflecting the ensemble-averaged 2-point statistics. Acta Materialia, 2010, 58, 4432-4445.	3.8	99

#	ARTICLE	IF	CITATIONS
199	Deformation twinning in AZ31: Influence on strain hardening and texture evolution. <i>Acta Materialia</i> , 2010, 58, 6230-6242.	3.8	558
200	Determination of an effective zero-point and extraction of indentation stress-strain curves without the continuous stiffness measurement signal. <i>Scripta Materialia</i> , 2009, 60, 439-442.	2.6	74
201	Modeling texture evolution in equal channel angular extrusion using crystal plasticity finite element models. <i>International Journal of Plasticity</i> , 2009, 25, 768-779.	4.1	52
202	Viscoelasticity and high buckling stress of dense carbon nanotube brushes. <i>Carbon</i> , 2009, 47, 1969-1976.	5.4	109
203	Crystal plasticity simulations using discrete Fourier transforms. <i>Acta Materialia</i> , 2009, 57, 1777-1784.	3.8	131
204	Measurement of the local mechanical properties in polycrystalline samples using spherical nanoindentation and orientation imaging microscopy. <i>Acta Materialia</i> , 2009, 57, 3020-3028.	3.8	71
205	Representation of the orientation distribution function and computation of first-order elastic properties closures using discrete Fourier transforms. <i>Acta Materialia</i> , 2009, 57, 3916-3923.	3.8	59
206	Importance of surface preparation on the nano-indentation stress-strain curves measured in metals. <i>Journal of Materials Research</i> , 2009, 24, 1142-1155.	1.2	80
207	Second-Order Microstructure Sensitive Design Using 2-Point Spatial Correlations. , 2009, , 177-188.		4
208	A crystal plasticity finite element analysis of cross-grain deformation heterogeneity in equal channel angular extrusion and its implications for texture evolution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 480, 17-23.	2.6	19
209	Computationally efficient database and spectral interpolation for fully plastic Taylor-type crystal plasticity calculations of face-centered cubic polycrystals. <i>International Journal of Plasticity</i> , 2008, 24, 1264-1276.	4.1	115
210	Thermomechanical Processing for Recovery of Desired $\langle 001 \rangle$ Fiber Texture in Electric Motor Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 1738-1746.	1.1	42
211	Modeling Anisotropic Stress-Strain Response and Crystallographic Texture Evolution in α -Titanium during Large Plastic Deformation using Taylor-Type Models: Influence of Initial Texture and Purity. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 3046-3054.	1.1	30
212	Gradient-based microstructure reconstructions from distributions using fast Fourier transforms. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 494, 68-72.	2.6	104
213	A strong contrast homogenization formulation for multi-phase anisotropic materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 2287-2297.	2.3	62
214	Analyzing indentation stress-strain response of LaGaO ₃ single crystals using spherical indenters. <i>Journal of the European Ceramic Society</i> , 2008, 28, 2213-2220.	2.8	35
215	Analyzing indentation behavior of LaGaO ₃ single crystals using sharp indenters. <i>Journal of the European Ceramic Society</i> , 2008, 28, 2039-2047.	2.8	15
216	Microstructure reconstructions from 2-point statistics using phase-recovery algorithms. <i>Acta Materialia</i> , 2008, 56, 942-948.	3.8	264

#	ARTICLE	IF	CITATIONS
217	A new spectral framework for establishing localization relationships for elastic behavior of composites and their calibration to finite-element models. <i>Acta Materialia</i> , 2008, 56, 2272-2282.	3.8	28
218	Spectral representation of higher-order localization relationships for elastic behavior of polycrystalline cubic materials. <i>Acta Materialia</i> , 2008, 56, 3843-3853.	3.8	26
219	Determination of the effective zero-point and the extraction of spherical nanoindentation stress-strain curves. <i>Acta Materialia</i> , 2008, 56, 3523-3532.	3.8	213
220	Delineation of the space of 2-point correlations in a composite material system. <i>Acta Materialia</i> , 2008, 56, 5285-5292.	3.8	131
221	Delineation of first-order closures for plastic properties requiring explicit consideration of strain hardening and crystallographic texture evolution. <i>International Journal of Plasticity</i> , 2008, 24, 327-342.	4.1	78
222	Application of microstructure sensitive design to structural components produced from hexagonal polycrystalline metals. <i>Computational Materials Science</i> , 2008, 43, 374-383.	1.4	80
223	Application of the Spectral Methods of Microstructure Design to Continuous Fiber-reinforced Composites. <i>Journal of Composite Materials</i> , 2007, 41, 909-930.	1.2	20
224	Application of Microstructure Sensitive Design to FCC Polycrystals. <i>Materials Science Forum</i> , 2007, 546-549, 675-680.	0.3	13
225	Generalized Pareto front methods applied to second-order material property closures. <i>Computational Materials Science</i> , 2007, 38, 788-799.	1.4	27
226	Fast computation of first-order elastic-plastic closures for polycrystalline cubic-orthorhombic microstructures. <i>Computational Materials Science</i> , 2007, 39, 643-648.	1.4	102
227	Calibration of elastic localization tensors to finite element models: Application to cubic polycrystals. <i>Computational Materials Science</i> , 2007, 41, 138-144.	1.4	13
228	Prediction of crystallographic texture evolution and anisotropic stress-strain curves during large plastic strains in high purity α -titanium using a Taylor-type crystal plasticity model. <i>Acta Materialia</i> , 2007, 55, 423-432.	3.8	194
229	Elastic-plastic property closures for hexagonal close-packed polycrystalline metals using first-order bounding theories. <i>Acta Materialia</i> , 2007, 55, 2729-2737.	3.8	81
230	Integration of Microstructure-Sensitive Design with Finite Element Methods: Elastic-Plastic Case Studies in FCC Polycrystals. <i>International Journal for Multiscale Computational Engineering</i> , 2007, 5, 261-272.	0.8	17
231	Sapphire: A kinking nonlinear elastic solid. <i>Journal of Applied Physics</i> , 2006, 99, 063501.	1.1	42
232	Incipient and regular kink bands in fully dense and 10vol.% porous Ti_2AlC . <i>Acta Materialia</i> , 2006, 54, 1631-1639.	3.8	101
233	Spectral calibration of crystal plasticity models. <i>Acta Materialia</i> , 2006, 54, 1795-1804.	3.8	95
234	On the elastic properties and mechanical damping of Ti_3SiC_2 , Ti_3GeC_2 , $\text{Ti}_3\text{Si}_0.5\text{Al}_0.5\text{C}_2$ and Ti_2AlC in the 300-1573K temperature range. <i>Acta Materialia</i> , 2006, 54, 2757-2767.	3.8	218

#	ARTICLE	IF	CITATIONS
235	Elastic properties closures using second-order homogenization theories: Case studies in composites of two isotropic constituents. <i>Acta Materialia</i> , 2006, 54, 3117-3126.	3.8	70
236	Macroscale constitutive modeling of kinking nonlinear elastic solids. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 418, 95-98.	2.6	16
237	Procedures for construction of anisotropic elastic-plastic property closures for face-centered cubic polycrystals using first-order bounding relations. <i>Journal of the Mechanics and Physics of Solids</i> , 2006, 54, 1744-1762.	2.3	68
238	Solid particle erosion resistance of thermally sprayed functionally graded coatings for polymer matrix composites. <i>Surface and Coatings Technology</i> , 2006, 200, 5145-5151.	2.2	72
239	Finite element modeling of crystal plasticity with grains shaped as truncated octahedrons. <i>International Journal of Plasticity</i> , 2006, 22, 1879-1898.	4.1	140
240	Strain-path effects on the evolution of microstructure and texture during the severe-plastic deformation of aluminum. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 2879-2891.	1.1	46
241	A Crystal Plasticity Framework for Deformation Twinning. , 2005, , 543-560.		2
242	A crystal plasticity finite element analysis of texture evolution in equal channel angular extrusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 410-411, 207-212.	2.6	36
243	Finite approximations to the second-order properties closure in single phase polycrystals. <i>Acta Materialia</i> , 2005, 53, 3563-3577.	3.8	100
244	Strain hardening due to deformation twinning in α -titanium: Constitutive relations and crystal-plasticity modeling. <i>Acta Materialia</i> , 2005, 53, 3495-3502.	3.8	291
245	Spectral methods for capturing crystallographic texture evolution during large plastic strains in metals. <i>Acta Materialia</i> , 2005, 53, 3613-3623.	3.8	25
246	Effects of temperature, strain rate and grain size on the compressive properties of Ti3SiC2. <i>Acta Materialia</i> , 2005, 53, 4163-4171.	3.8	85
247	Compressive creep of fine and coarse-grained Ti3SiC2 in air in the 1100-1300°C temperature range. <i>Acta Materialia</i> , 2005, 53, 4963-4973.	3.8	69
248	Adhesive/Cohesive Properties of Thermally Sprayed Functionally Graded Coatings for Polymer Matrix Composites. <i>Journal of Thermal Spray Technology</i> , 2005, 14, 45-51.	1.6	57
249	Micro-Mechanical Finite Element Models for Crystal Plasticity. , 2005, , 529-542.		1
250	Microstructure Sensitive Design with First Order Homogenization Theories and Finite Element Codes. <i>Materials Science Forum</i> , 2005, 495-497, 23-30.	0.3	10
251	Dynamic Elastic Hysteretic Solids and Dislocations. <i>Physical Review Letters</i> , 2005, 94, 085501.	2.9	58
252	Microscale modeling of kinking nonlinear elastic solids. <i>Physical Review B</i> , 2005, 71, .	1.1	108

#	ARTICLE	IF	CITATIONS
253	DNET: The Drexel Nano Engineering Track.. Materials Research Society Symposia Proceedings, 2004, 827, 182.	0.1	0
254	Spherical Nanoindentations and Kink Bands in Ti3SiC2. Journal of Materials Research, 2004, 19, 1139-1148.	1.2	82
255	Kink bands, nonlinear elasticity and nanoindentations in graphite. Carbon, 2004, 42, 1435-1445.	5.4	148
256	Texture evolution during equal channel angular extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 368, 28-40.	2.6	102
257	Microstructure sensitive design of an orthotropic plate subjected to tensile load. International Journal of Plasticity, 2004, 20, 1561-1575.	4.1	104
258	A quantitative evaluation of the deformation texture predictions for aluminium alloys from crystal plasticity finite element method. Modelling and Simulation in Materials Science and Engineering, 2004, 12, 845-870.	0.8	35
259	Detailed analyses of grain-scale plastic deformation in columnar polycrystalline aluminium using orientation image mapping and crystal plasticity models. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 1935-1956.	1.0	91
260	Kinking Nonlinear Elastic Solids, Nanoindentations, and Geology. Physical Review Letters, 2004, 92, 255508.	2.9	117
261	Coupling of Microstructure Sensitive Design With Finite Element Codes: Design of an Orthotropic Plate With a Circular Hole Loaded in Tension. , 2004, , .		1
262	Processing Solutions for Targeted Textures Using Spectral Methods. , 2004, , .		3
263	How Do Polycrystalline Materials Deform Plastically?. Advanced Materials, 2003, 15, 1345-1348.	11.1	23
264	Role of Deformation Twinning on Strain Hardening in Cubic and Hexagonal Polycrystalline Metals. Advanced Engineering Materials, 2003, 5, 229-232.	1.6	117
265	The role of crystallinity in the crystallographic texture evolution of polyethylenes during tensile deformation. Polymer, 2003, 44, 5355-5367.	1.8	35
266	Plane strain fracture toughness of MP35N in aged and unaged conditions measured using modified CT specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 340, 163-169.	2.6	3
267	Fracture properties of multiphase alloy MP35N. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 349, 313-317.	2.6	7
268	Fully reversible, dislocation-based compressive deformation of Ti3SiC2 to 1 GPa. Nature Materials, 2003, 2, 107-111.	13.3	342
269	Strain hardening of titanium: role of deformation twinning. Acta Materialia, 2003, 51, 4225-4237.	3.8	396
270	Erosion/Oxidation Resistant Coatings for High Temperature Polymer Composites. High Performance Polymers, 2003, 15, 503-517.	0.8	1

#	ARTICLE	IF	CITATIONS
271	Spectral Integration of Microstructure and Design. Materials Science Forum, 2002, 408-412, 487-492.	0.3	10
272	Modelling Microstructure-Based Anisotropy in BCC Polycrystals during Changing Strain Paths. Solid State Phenomena, 2002, 87, 163-168.	0.3	2
273	Materials Design by Spectral Methods. , 2002, , .		0
274	Strain hardening regimes and microstructure evolution during large strain compression of high purity titanium. Scripta Materialia, 2002, 46, 419-423.	2.6	145
275	Quantitative prediction of textures in aluminium cold rolled to moderate strains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 336, 233-244.	2.6	62
276	Comparison of two grain interaction models for polycrystal plasticity and deformation texture prediction. International Journal of Plasticity, 2002, 18, 359-377.	4.1	130
277	Modeling the evolution of anisotropy in Al-Li alloys: application to Al-Li 2090-T8E41. International Journal of Plasticity, 2002, 18, 1373-1393.	4.1	31
278	A theoretical investigation of the influence of dislocation sheets on evolution of yield surfaces in single-phase B.C.C. polycrystals. Journal of the Mechanics and Physics of Solids, 2002, 50, 783-807.	2.3	73
279	Modeling anisotropic strain hardening and deformation textures in low stacking fault energy fcc metals. International Journal of Plasticity, 2001, 17, 837-860.	4.1	208
280	Evolution of grain-scale microstructure during large strain simple compression of polycrystalline aluminum with quasi-columnar grains: OIM measurements and numerical simulations. International Journal of Plasticity, 2001, 17, 861-883.	4.1	116
281	Influence of deformation path on the strain hardening behavior and microstructure evolution in low SFE FCC metals. International Journal of Plasticity, 2001, 17, 1245-1265.	4.1	83
282	Crystallographic texture evolution in high-density polyethylene during uniaxial tension. Polymer, 2001, 42, 4903-4913.	1.8	21
283	Microstructure-sensitive design of a compliant beam. Journal of the Mechanics and Physics of Solids, 2001, 49, 1639-1663.	2.3	137
284	Work-hardening/softening behaviour of b.c.c. polycrystals during changing strain paths: I. An integrated model based on substructure and texture evolution, and its prediction of the stress-strain behaviour of an IF steel during two-stage strain paths. Acta Materialia, 2001, 49, 1607-1619.	3.8	219
285	A disclination-based model for grain subdivision. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 192-196.	2.6	21
286	Swelling of crosslinked poly(methylmethacrylate-acrylic acid) copolymers in serum and saline solutions. Journal of Applied Polymer Science, 2001, 79, 1653-1664.	1.3	4
287	Fixation strength of swellable bone anchors in low-density polyurethane foam. Journal of Biomedical Materials Research Part B, 2001, 58, 137-146.	3.0	7
288	The incorporation of dislocation sheets into a model for plastic deformation of b.c.c. polycrystals and its influence on r-values. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 188-191.	2.6	13

#	ARTICLE	IF	CITATIONS
289	Biological and mechanical characteristics of the interface between a new swelling anchor and bone. <i>Journal of Orthopaedic Research</i> , 2000, 18, 494-499.	1.2	8
290	On the prediction of yield surfaces by the crystal plasticity models for fcc polycrystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 293, 120-129.	2.6	63
291	Deformation texture transition in brass: critical role of micro-scale shear bands. <i>Acta Materialia</i> , 2000, 48, 2665-2673.	3.8	132
292	A crystal plasticity based work-hardening/softening model for b.c.c. metals under changing strain paths. <i>Acta Materialia</i> , 2000, 48, 2123-2133.	3.8	122
293	Evolution of Grain-Scale Microstructure during Large Strain Simple Compression of Polycrystalline Aluminium. <i>Key Engineering Materials</i> , 2000, 177-180, 183-188.	0.4	1
294	Influence of cold-work and aging heat treatment on strength and ductility of MP35N. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 272, 371-379.	2.6	24
295	Influence of grain size and stacking-fault energy on deformation twinning in fcc metals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999, 30, 1223-1233.	1.1	418
296	Ambient and High Temperature Properties of Titanium Carbide/Titanium Boride Composites Fabricated by Transient Plastic Phase Processing. <i>Journal of the American Ceramic Society</i> , 1999, 82, 665-672.	1.9	26
297	Processing and Mechanical Properties of Ti_3SiC_2 : II, Effect of Grain Size and Deformation Temperature. <i>Journal of the American Ceramic Society</i> , 1999, 82, 2855-2860.	1.9	335
298	Incorporation of deformation twinning in crystal plasticity models. <i>Journal of the Mechanics and Physics of Solids</i> , 1998, 46, 267-290.	2.3	450
299	On the accuracy of the predictions of texture evolution by the finite element technique for fcc polycrystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 257, 108-117.	2.6	47
300	The secondary hardening phenomenon in strain-hardened MP35N alloy. <i>Acta Materialia</i> , 1998, 46, 5795-5806.	3.8	50
301	Effect of water absorption on the izod impact energy of crosslinked poly(methyl methacrylate-acrylic) Tj ETQq1 1 0,784314 rgBT /Ove 2,3	2.3	4
302	Modeling the strain hardening response of low SFE FCC alloys. <i>International Journal of Plasticity</i> , 1998, 14, 1265-1277.	4.1	100
303	Determination of unknown stress states in silicon wafers using microlaser Raman spectroscopy. <i>Journal of Applied Physics</i> , 1997, 82, 2595-2602.	1.1	86
304	Strain hardening regimes and microstructural evolution during large strain compression of low stacking fault energy fcc alloys that form deformation twins. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1997, 28, 1781-1795.	1.1	393
305	Synthesis of nickel aluminides by vacuum plasma spraying and exothermic in-situ reactions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 229, 137-146.	2.6	13
306	Numerical evaluation of isostrain and weighted-average models for elastic moduli of three-dimensional composites. <i>Composites Science and Technology</i> , 1997, 57, 293-305.	3.8	58

#	ARTICLE	IF	CITATIONS
307	Synthesis and characterization of a poly(methyl methacrylate-acrylic acid) copolymer for bioimplant applications. Journal of Applied Polymer Science, 1997, 63, 75-87.	1.3	31
308	Development of self-anchoring bone implants. I. Processing and material characterization. , 1997, 38, 314-327.		18
309	Development of self-anchoring bone implants. II. Bone-implant interface characteristics in vitro. , 1997, 38, 328-336.		12
310	Damage Mechanisms around Hardness Indentations in Ti ₃ SiC ₂ . Journal of the American Ceramic Society, 1997, 80, 513-516.	1.9	331
311	Microstructural Evolution during Transient Plastic Phase Processing of Titanium Carbide-Titanium Boride Composites. Journal of the American Ceramic Society, 1996, 79, 1945-1952.	1.9	85
312	Longitudinal and Transverse Moduli and Strengths of Low Angle 3-D Braided Composites. Journal of Composite Materials, 1996, 30, 885-905.	1.2	89
313	The transient plastic phase processing of ceramic-ceramic composites. Jom, 1995, 47, 52-55.	0.9	12
314	The process of shear band formation in plane strain compression of fcc metals: Effects of crystallographic texture. Mechanics of Materials, 1994, 17, 223-243.	1.7	154
315	Macroscopic shape change and evolution of crystallographic texture in pre-textured FCC metals. Journal of the Mechanics and Physics of Solids, 1994, 42, 459-490.	2.3	74
316	Large deformation simple compression of a copper single crystal. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1993, 24, 989-992.	1.4	43
317	Crystallographic texture evolution in bulk deformation processing of FCC metals. Journal of the Mechanics and Physics of Solids, 1992, 40, 537-569.	2.3	1,006
318	An approximate procedure for predicting the evolution of crystallographic texture in bulk deformation processing of fcc metals. International Journal of Mechanical Sciences, 1992, 34, 309-329.	3.6	71
319	A Unified Approach for Modeling CVD Processes. Journal of the Electrochemical Society, 1991, 138, 962-969.	1.3	2
320	MSR acoustic vibrations due to the HP and LP tube bundle and cavity interactions using a bond graph model. Applied Acoustics, 1990, 30, 303-320.	1.7	2
321	Determination of Rate Controlling Step in CVD Processes with Gas Phase and Surface Reactions. Japanese Journal of Applied Physics, 1990, 29, 1310-1315.	0.8	6
322	Analytical Model for the Low Pressure Chemical Vapor Deposition of SiO ₂ from Tetraethoxysilane. Journal of the Electrochemical Society, 1990, 137, 624-628.	1.3	28
323	Bond Graphs For Cvd Processes. Materials Research Society Symposia Proceedings, 1989, 168, 37.	0.1	0
324	Contributions of Gas Phase Reactions to CVD Processes. Materials Research Society Symposia Proceedings, 1988, 131, 307.	0.1	1

#	ARTICLE	IF	CITATIONS
325	Retention of the α -Fiber Texture for Fe-Si Electric Motor Steels. Materials Science Forum, 0, 550, 497-502.	0.3	2
326	A Comparison of Deformation Textures and Mechanical Properties Predicted by Different Crystal Plasticity Codes. Ceramic Transactions, 0, , 701-712.	0.1	1
327	Feature Engineering for Microstructure-Property Mapping in Organic Photovoltaics. Integrating Materials and Manufacturing Innovation, 0, , .	1.2	1