

# Rajiv S. Mishra

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

579  
papers

22,720  
citations

63  
h-index

134  
g-index

603  
ext. papers

26,000  
ext. citations

4.4  
avg, IF

7.56  
L-index

#	Paper	IF	Citations
579	Unveiling the interplay of deformation mechanisms in a metastable high entropy alloy with tuned composition using synchrotron X-ray diffraction. <i>Materials Today Communications</i> , <b>2022</b> , 30, 103155	2.5	
578	Understanding the nature of passivation film formed during corrosion of Fe <sub>39</sub> Mn <sub>20</sub> Co <sub>20</sub> Cr <sub>15</sub> Si <sub>5</sub> Al <sub>1</sub> high entropy alloy in 3.5 wt% NaCl solution. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 904, 164100	5.7	1
577	Mechanical properties and microstructural characteristics of additively manufactured C103 niobium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 831, 142183	5.3	1
576	Elimination of extraordinarily high cracking susceptibility of aluminum alloy fabricated by laser powder bed fusion. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 103, 50-58	9.1	6
575	Effects of plasticity-induced martensitic transformation and grain refinement on the evolution of microstructure and mechanical properties of a metastable high entropy alloy. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 891, 161871	5.7	1
574	Ultrasonic elastography for nondestructive evaluation of dissimilar material joints. <i>Journal of Materials Processing Technology</i> , <b>2022</b> , 299, 117301	5.3	2
573	Alloy design and adaptation for additive manufacture. <i>Journal of Materials Processing Technology</i> , <b>2022</b> , 299, 117358	5.3	10
572	Cyclic Thermal Dependent Microstructure Evolution During Laser Directed Energy Deposition of H13 Steel. <i>Transactions of the Indian Institute of Metals</i> , <b>2022</b> , 75, 1007-1014	1.2	0
571	Role of Cu addition in enhancing strength-ductility synergy in transforming high entropy alloy. <i>Materials and Design</i> , <b>2022</b> , 215, 110487	8.1	1
570	Pathways to Titanium Martensite. <i>Transactions of the Indian Institute of Metals</i> , <b>2022</b> , 75, 1051-1068	1.2	0
569	Highly complex magnetic behavior resulting from hierarchical phase separation in AlCo(Cr)FeNi high-entropy alloys.. <i>IScience</i> , <b>2022</b> , 25, 104047	6.1	0
568	Influence of welding parameters on mechanical, microstructure, and corrosion behavior of friction stir welded Al 7017 alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 143303	5.3	0
567	Stress contribution of B2 phase in Al <sub>0.7</sub> CoCrFeNi eutectic high entropy alloy. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 165673	5.7	
566	Excellent ballistic impact resistance of AlCoCrFeNi multi-principal element alloy with unique bimodal microstructure. <i>Scientific Reports</i> , <b>2021</b> , 11, 22715	4.9	3
565	Proton irradiation induced chemical ordering in an Al <sub>0.3</sub> CoFeNi high entropy alloy. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 161907	3.4	0
564	Effect of multi-pass friction stir processing and SiC nanoparticles on microstructure and mechanical properties of AA6082-T6. <i>Advances in Industrial and Manufacturing Engineering</i> , <b>2021</b> , 3, 100062	1.8	11
563	Development of Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> based magnetic abrasive by sintering method and its performance on Ti-6Al-4V during magnetic abrasive finishing. <i>Transactions of the Institute of Metal Finishing</i> , <b>2021</b> , 99, 94-101	1.3	6

562	Spatial Variation of Thermokinetics and Associated Microstructural Evolution in Laser Surface Engineered IN718: Precursor to Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2021</b> , 52, 2344-2360	2.3	3
561	Precipitation in nanostructured alloys: A brief review. <i>MRS Bulletin</i> , <b>2021</b> , 46, 250-257	3.2	2
560	Chemical-Affinity Disparity and Exclusivity Drive Atomic Segregation, Short-Range Ordering, and Cluster Formation in High-Entropy Alloys. <i>Acta Materialia</i> , <b>2021</b> , 206, 116638	8.4	12
559	High entropy alloys Tunability of deformation mechanisms through integration of compositional and microstructural domains. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 812, 141085	5.3	25
558	Strain rate sensitive microstructural evolution in a TRIP assisted high entropy alloy: Experiments, microstructure and modeling. <i>Mechanics of Materials</i> , <b>2021</b> , 156, 103798	3.3	6
557	Microstructure and mechanical characterization of tungsten inert gas-welded joint of AA6061 and AA7075 by friction stir processing. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , <b>2021</b> , 235, 2531-2546	1.3	8
556	Insights into Defect-Mediated Nucleation of Equilibrium B2 Phase in Face-Centered Cubic High-Entropy Alloys. <i>Jom</i> , <b>2021</b> , 73, 2320-2331	2.1	2
555	Design of heterogeneous structured Al alloys with wide processing window for laser-powder bed fusion additive manufacturing. <i>Additive Manufacturing</i> , <b>2021</b> , 42, 102002	6.1	6
554	Design approaches for printability-performance synergy in Al alloys for laser-powder bed additive manufacturing. <i>Materials and Design</i> , <b>2021</b> , 204, 109640	8.1	26
553	Effect of friction stir processing on mechanical properties and heat transfer of TIG welded joint of AA6061 and AA7075. <i>Defence Technology</i> , <b>2021</b> , 17, 715-727	3	19
552	Additively manufactured novel Al-Cu-Sc-Zr alloy: Microstructure and mechanical properties. <i>Additive Manufacturing</i> , <b>2021</b> , 37, 101623	6.1	4
551	Additive friction stir deposition: a deformation processing route to metal additive manufacturing. <i>Materials Research Letters</i> , <b>2021</b> , 9, 71-83	7.4	21
550	MicrostructureProperty Correlation in a Laser Powder Bed Fusion Processed High-Strength AF-9628 Steel. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2000845	3.5	6
549	Stress Corrosion Cracking of TRIP Fe <sub>39</sub> Mn <sub>20</sub> Co <sub>20</sub> Cr <sub>15</sub> Si <sub>5</sub> Al <sub>1</sub> (at.%) High Entropy Alloy. <i>Minerals, Metals and Materials Series</i> , <b>2021</b> , 742-750	0.3	
548	Crystallographic texture dependent bulk anisotropic elastic response of additively manufactured Ti6Al4V. <i>Scientific Reports</i> , <b>2021</b> , 11, 633	4.9	7
547	Co-introduction of precipitate hardening and TRIP in a TWIP high-entropy alloy using friction stir alloying. <i>Scientific Reports</i> , <b>2021</b> , 11, 1579	4.9	4
546	Optimization of friction stir welding process parameters during joining of aluminum alloys of AA6061 and AA6082. <i>Materials Today: Proceedings</i> , <b>2021</b> , 45, 5368-5376	1.4	1
545	Effect of Friction Stir Processing on Mechanical Properties and Wear Resistance of Tungsten Inert Gas Welded Joint of Dissimilar Aluminum Alloys. <i>Journal of Materials Engineering and Performance</i> , <b>2021</b> , 30, 1926-1937	1.6	17

544	Some Unique Aspects of Mechanical Behavior of Metastable Transformative High Entropy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2021</b> , 52, 889-896	2.3	6
543	Tri-objective constrained optimization of pulsating DC sourced magnetic abrasive finishing process parameters using artificial neural network and genetic algorithm. <i>Materials and Manufacturing Processes</i> , <b>2021</b> , 36, 843-857	4.1	6
542	Direct evidence of the stacking fault-mediated strain hardening phenomenon. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 081906	3.4	2
541	Modeling the work hardening behavior in metastable high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 823, 141778	5.3	2
540	Friction stir processing of a high entropy alloy Fe <sub>42</sub> Co <sub>10</sub> Cr <sub>15</sub> Mn <sub>28</sub> Si <sub>5</sub> with transformative characteristics: Microstructure and mechanical properties. <i>Materials Today Communications</i> , <b>2021</b> , 28, 102635	2.5	0
539	Transformative high entropy alloy conquers the strength-ductility paradigm by massive interface strengthening. <i>Scripta Materialia</i> , <b>2021</b> , 203, 114070	5.6	5
538	Metastable high entropy alloys: An excellent defect tolerant material for additive manufacturing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 826, 142005	5.3	5
537	Segregation engineering of grain boundaries of a metastable Fe-Mn-Co-Cr-Si high entropy alloy with laser-powder bed fusion additive manufacturing. <i>Acta Materialia</i> , <b>2021</b> , 219, 117271	8.4	16
536	Role of binder phase on the microstructure and mechanical properties of a mechanically alloyed and spark plasma sintered WC-FCC HEA composites. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 877, 160265	5.7	8
535	High density of strong yet deformable intermetallic nanorods leads to an excellent room temperature strength-ductility combination in a high entropy alloy. <i>Acta Materialia</i> , <b>2021</b> , 219, 117234	8.4	10
534	Friction stir welding of FCC dominated metastable high entropy alloy: Microstructural evolution and strength. <i>Scripta Materialia</i> , <b>2021</b> , 204, 114161	5.6	4
533	Processing-structure-property correlation in additive friction stir deposited Ti-6Al-4V alloy from recycled metal chips. <i>Additive Manufacturing</i> , <b>2021</b> , 47, 102259	6.1	7
532	Dynamic Shear Deformation of a Precipitation Hardened AlCoCrFeNi Eutectic High-Entropy Alloy Using Hat-Shaped Specimen Geometry. <i>Entropy</i> , <b>2020</b> , 22,	2.8	9
531	Metastability driven hierarchical microstructural engineering: Overview of mechanical properties of metastable complex concentrated alloys. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 842, 155625	5.7	13
530	Ballistic Impact Response of Al <sub>0.1</sub> CoCrFeNi High-Entropy Alloy. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2070025	3.5	
529	Highly tunable magnetic and mechanical properties in an Al <sub>0.3</sub> CoFeNi complex concentrated alloy. <i>Materialia</i> , <b>2020</b> , 12, 100755	3.2	6
528	Hierarchical Eutectoid Nano-lamellar Decomposition in an AlCoFeNi Complex Concentrated Alloy. <i>Scientific Reports</i> , <b>2020</b> , 10, 4836	4.9	11
527	Rapid thermokinetics driven nanoscale vanadium clustering within martensite laths in laser powder bed fused additively manufactured Ti6Al4V. <i>Materials Research Letters</i> , <b>2020</b> , 8, 383-389	7.4	18

526	Investigation of mechanical properties and heat transfer of welded joint of AA6061 and AA7075 using TIG+FSP welding approach. <i>Journal of Advanced Joining Processes</i> , <b>2020</b> , 1, 100003	2.1	20
525	Excellent high cyclic fatigue properties of a novel ultrafine-grained medium entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 779, 139122	5.3	10
524	Effect of temperature on the fatigue cracking mechanisms in A356 Al alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 780, 139175	5.3	6
523	Excellent strength-ductility synergy in metastable high entropy alloy by laser powder bed additive manufacturing. <i>Additive Manufacturing</i> , <b>2020</b> , 32, 101098	6.1	16
522	Notch-tensile behavior of Al <sub>0.1</sub> CrFeCoNi high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 774, 138918	5.3	6
521	Process-Dependent Composition, Microstructure, and Printability of Al-Zn-Mg and Al-Zn-Mg-Sc-Zr Alloys Manufactured by Laser Powder Bed Fusion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2020</b> , 51, 3215-3227	2.3	23
520	Ballistic Impact Response of Al <sub>0.1</sub> CoCrFeNi High-Entropy Alloy. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000124	3.5	9
519	Effect of Friction Stir Processing on Microstructure and Mechanical Properties of TIG Welded Joint of AA6061 and AA7075. <i>Metallography, Microstructure, and Analysis</i> , <b>2020</b> , 9, 403-418	1.1	25
518	Fatigue Behavior of High Entropy Alloys <b>2020</b> , 411-428		
517	Hierarchically Structured Ultrafine Grained Magnesium Alloys. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 7-11	0.3	
516	Influence of Friction Stir Processing on Weld Temperature Distribution and Mechanical Properties of TIG-Welded Joint of AA6061 and AA7075. <i>Transactions of the Indian Institute of Metals</i> , <b>2020</b> , 73, 1773-1788	1.2	24
515	Friction stir butt welding of a high strength Al-7050 alloy with a metastable transformative high entropy alloy. <i>Materialia</i> , <b>2020</b> , 11, 100740	3.2	5
514	Achieving extraordinary structural efficiency in a wrought magnesium rare earth alloy. <i>Materials Research Letters</i> , <b>2020</b> , 8, 151-157	7.4	9
513	Aging response on the stress corrosion cracking behavior of wrought precipitation-hardened magnesium alloy. <i>Journal of Materials Science</i> , <b>2020</b> , 55, 1216-1230	4.3	6
512	Enhanced tensile yield strength in laser additively manufactured Al <sub>0.3</sub> CoCrFeNi high entropy alloy. <i>Materialia</i> , <b>2020</b> , 9, 100522	3.2	29
511	Deformation of lamellar FCC-B2 nanostructures containing Kurdjumov-Sachs interfaces: Relation between interfacial structure and plasticity. <i>International Journal of Plasticity</i> , <b>2020</b> , 125, 191-209	7.6	14
510	Interplay between single phase solid solution strengthening and multi-phase strengthening in the same high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 771, 138620	5.3	12
509	Superplasticity in fine grained dual phase high entropy alloy. <i>Materialia</i> , <b>2020</b> , 9, 100521	3.2	13

508	Hall-Petch and inverse Hall-Petch relations in high-entropy CoNiFeAlxCu <sub>1-x</sub> alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 773, 138873	5.3	43
507	Investigating the deformation mechanisms of a highly metastable high entropy alloy using in-situ neutron diffraction. <i>Materials Today Communications</i> , <b>2020</b> , 23, 100858	2.5	15
506	Friction stir gradient alloying: A novel solid-state high throughput screening technique for high entropy alloys. <i>Materials Today Communications</i> , <b>2020</b> , 23, 100869	2.5	11
505	An integrated computational materials engineering-anchored closed-loop method for design of aluminum alloys for additive manufacturing. <i>Materialia</i> , <b>2020</b> , 9, 100574	3.2	24
504	Friction stir processing of a metastable titanium alloy in $\alpha$ and $\beta$ phase fields. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 772, 138705	5.3	4
503	Deformation mechanisms and ductile fracture characteristics of a friction stir processed transformative high entropy alloy. <i>Acta Materialia</i> , <b>2020</b> , 184, 164-178	8.4	19
502	Defect-based probabilistic fatigue life estimation model for an additively manufactured aluminum alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 798, 140082	5.3	8
501	Friction stir gradient alloying: A high-throughput method to explore the influence of V in enabling HCP to BCC transformation in a FCC dominated high entropy alloy. <i>Applied Materials Today</i> , <b>2020</b> , 21, 100853	6.6	9
500	An experimental analysis and optimization of process parameters of AA6061 and AA7075 welded joint by TIG+FSP welding using RSM. <i>Advances in Materials and Processing Technologies</i> , <b>2020</b> , 1-23	0.8	14
499	Damage-tolerant, corrosion-resistant high entropy alloy with high strength and ductility by laser powder bed fusion additive manufacturing. <i>Additive Manufacturing</i> , <b>2020</b> , 36, 101455	6.1	8
498	Microstructurally flexible high entropy alloys: Linkages between alloy design and deformation behavior. <i>Materials and Design</i> , <b>2020</b> , 194, 108968	8.1	14
497	Effect of Strain Rate on Deformation Response of Metastable High Entropy Alloys Upon Friction Stir Processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2020</b> , 51, 5043-5048	2.3	3
496	Correlating work hardening with co-activation of stacking fault strengthening and transformation in a high entropy alloy using in-situ neutron diffraction. <i>Scientific Reports</i> , <b>2020</b> , 10, 22263	4.9	2
495	Ultrasonic spot welding of dissimilar Al 6022 and Al 7075 alloys. <i>Journal of Materials Processing Technology</i> , <b>2020</b> , 278, 116460	5.3	10
494	Exploration of Novel Nano-scale Instabilities in Metastable Beta Titanium Alloys Using Transmission Electron Microscopy and Aberration-Corrected Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 2276-2277	0.5	
493	On the evolving nature of c/a ratio in a hexagonal close-packed epsilon martensite phase in transformative high entropy alloys. <i>Scientific Reports</i> , <b>2019</b> , 9, 13185	4.9	22
492	Aqueous Corrosion Behavior of Cast CoCrFeMnNi Alloy. <i>Journal of Materials Engineering and Performance</i> , <b>2019</b> , 28, 5970-5977	1.6	9
491	Immiscible nanostructured copper-aluminum-niobium alloy with excellent precipitation strengthening upon friction stir processing and aging. <i>Scripta Materialia</i> , <b>2019</b> , 164, 42-47	5.6	8

490	Significant Contribution to Strength Enhancement from Deformation Twins in Thermomechanically Processed Al <sub>0.1</sub> CoCrFeNi Microstructures. <i>Journal of Materials Engineering and Performance</i> , <b>2019</b> , 28, 1661-1667	1.6	8
489	Laser additive manufacturing of compositionally graded AlCrFeMoV <sub>x</sub> (x = 0 to 1) high-entropy alloy system. <i>Optics and Laser Technology</i> , <b>2019</b> , 113, 330-337	4.2	35
488	Microstructure, fatigue, and impact toughness properties of additively manufactured nickel alloy 718. <i>Additive Manufacturing</i> , <b>2019</b> , 28, 661-675	6.1	24
487	Effect of nano-sized precipitates on the fatigue property of a lamellar structured high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 760, 225-230	5.3	13
486	Study of the influence of friction stir processing on tungsten inert gas welding of different aluminum alloy. <i>SN Applied Sciences</i> , <b>2019</b> , 1, 1	1.8	17
485	Nanoindentation behavior of high entropy alloys with transformation-induced plasticity. <i>Scientific Reports</i> , <b>2019</b> , 9, 6639	4.9	21
484	Extremely high fatigue resistance in an ultrafine grained high entropy alloy. <i>Applied Materials Today</i> , <b>2019</b> , 15, 525-530	6.6	38
483	Development of in situ composites via reactive friction stir processing of TiB <sub>4</sub> C system. <i>Composites Part B: Engineering</i> , <b>2019</b> , 172, 54-60	10	27
482	Influence of ordered L1 precipitation on strain-rate dependent mechanical behavior in a eutectic high entropy alloy. <i>Scientific Reports</i> , <b>2019</b> , 9, 6371	4.9	34
481	Role of copper on L12 precipitation strengthened fcc based high entropy alloy. <i>Materialia</i> , <b>2019</b> , 6, 100282	3.2	17
480	Tribocorrosion performance of laser additively processed high-entropy alloy coatings on aluminum. <i>Applied Physics A: Materials Science and Processing</i> , <b>2019</b> , 125, 1	2.6	10
479	Revealing the microstructural evolution in a high entropy alloy enabled with transformation, twinning and precipitation. <i>Materialia</i> , <b>2019</b> , 6, 100310	3.2	12
478	Evaluation of intermetallic compound layer at aluminum/steel interface joined by friction stir scribe technology. <i>Materials and Design</i> , <b>2019</b> , 174, 107795	8.1	42
477	Corrosion-resistant high entropy alloy with high strength and ductility. <i>Scripta Materialia</i> , <b>2019</b> , 166, 168-172	5.6	75
476	Channel formation during friction stir channeling process [A material flow study using X-Ray micro-computed tomography and optical microscopy. <i>Journal of Manufacturing Processes</i> , <b>2019</b> , 41, 48-55	5	13
475	Achieving Forced Mixing in Cu-Based Immiscible Alloys via Friction Stir Processing. <i>Minerals, Metals and Materials Series</i> , <b>2019</b> , 199-208	0.3	2
474	Analysis of Material Flow and Heat Transfer in Reverse Dual Rotation Friction Stir Welding: A Review. <i>International Journal of Steel Structures</i> , <b>2019</b> , 19, 422-434	1.3	15
473	Effect of hook characteristics on the fracture behaviour of dissimilar friction stir welded aluminium alloy and mild steel sheets. <i>Science and Technology of Welding and Joining</i> , <b>2019</b> , 24, 178-184	3.7	28

472	A State-of-the-Art Review on Solid-State Metal Joining. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2019</b> , 141,	3.3	59
471	Evolution of bond formation and fracture process of ultrasonic spot welded dissimilar materials. <i>Science and Technology of Welding and Joining</i> , <b>2019</b> , 24, 171-177	3.7	4
470	Ballistic Response of a FCC-B2 Eutectic AlCoCrFeNi <sub>2.1</sub> High Entropy Alloy. <i>Journal of Dynamic Behavior of Materials</i> , <b>2019</b> , 5, 495-503	1.8	8
469	A novel nano-particle strengthened titanium alloy with exceptional specific strength. <i>Scientific Reports</i> , <b>2019</b> , 9, 11726	4.9	6
468	Compositionally graded high entropy alloy with a strong front and ductile back. <i>Materials Today Communications</i> , <b>2019</b> , 20, 100602	2.5	13
467	Corrosion of Al <sub>0.1</sub> CoCrFeNi High Entropy Alloy in a Molten Eutectic Salt. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C3488-C3492	3.9	4
466	Friction Stir Processing of Beta C and Ti-185: A Unique Pathway to Engineer Microstructures for Exceptional Properties in Titanium Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2019</b> , 50, 4075-4084	2.3	5
465	Characterization of as-cast microstructural heterogeneities and damage mechanisms in eutectic AlCoCrFeNi <sub>2.1</sub> high entropy alloy. <i>Materials Characterization</i> , <b>2019</b> , 158, 109955	3.9	9
464	Effect of Stress Concentration on Strength and Fracture Behavior of Dissimilar Metal Joints. <i>Minerals, Metals and Materials Series</i> , <b>2019</b> , 33-39	0.3	1
463	Effect of reactive alloy elements on friction stir welded butt joints of metallurgically immiscible magnesium alloys and steel. <i>Journal of Manufacturing Processes</i> , <b>2019</b> , 39, 138-145	5	18
462	Wear Mechanism for H13 Steel Tool During Friction Stir Welding of CuCrZr Alloy. <i>Minerals, Metals and Materials Series</i> , <b>2019</b> , 59-64	0.3	2
461	Fatigue behavior of ultrafine grained triplex Al <sub>0.3</sub> CoCrFeNi high entropy alloy. <i>Scripta Materialia</i> , <b>2019</b> , 158, 116-120	5.6	60
460	Strengthening of Al <sub>0.3</sub> CoCrFeMnNi-based ODS high entropy alloys with incremental changes in the concentration of Y <sub>2</sub> O <sub>3</sub> . <i>Scripta Materialia</i> , <b>2019</b> , 162, 477-481	5.6	30
459	Microstructure and mechanical behavior of an additive manufactured (AM) WE43-Mg alloy. <i>Additive Manufacturing</i> , <b>2019</b> , 26, 53-64	6.1	38
458	High strain rate mechanical behavior of Ti-6Al-4V octet lattice structures additively manufactured by selective laser melting (SLM). <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 745, 231-239	5.3	24
457	Alumina-Nickel Composite Processed via Co-Assembly Using Freeze-Casting and Spark Plasma Sintering. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1801103	3.5	8
456	Enhancing strength and strain hardenability via deformation twinning in fcc-based high entropy alloys reinforced with intermetallic compounds. <i>Acta Materialia</i> , <b>2019</b> , 165, 420-430	8.4	84
455	Corrosion Inhibition Study of Mg-Nd-Y High Strength Magnesium Alloy Using Organic Inhibitor. <i>Journal of Materials Engineering and Performance</i> , <b>2019</b> , 28, 852-862	1.6	14



454	High Strain Rate Response of Al <sub>0.7</sub> CoCrFeNi High Entropy Alloy: Dynamic Strength Over 2 GPa from Thermomechanical Processing and Hierarchical Microstructure. <i>Journal of Dynamic Behavior of Materials</i> , <b>2019</b> , 5, 1-7	1.8	2
453	Technological Innovations in Metals Engineering. <i>Jom</i> , <b>2019</b> , 71, 651-654	2.1	
452	Microstructural Evolution and Deformation Behavior of Ni-Si- and Co-Si-Containing Metastable High Entropy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2019</b> , 50, 179-190	2.3	8
451	Tensile yield strength of a single bulk Al <sub>0.3</sub> CoCrFeNi high entropy alloy can be tuned from 160 MPa to 1800 MPa. <i>Scripta Materialia</i> , <b>2019</b> , 162, 18-23	5.6	82
450	Towards heterogeneous Al <sub>x</sub> CoCrFeNi high entropy alloy via friction stir processing. <i>Materials Letters</i> , <b>2019</b> , 236, 472-475	3.3	34
449	Hierarchical multi-phase microstructural architecture for exceptional strength-ductility combination in a complex concentrated alloy via high-temperature severe plastic deformation. <i>Scripta Materialia</i> , <b>2019</b> , 162, 38-43	5.6	17
448	Contrasting mechanical behavior in precipitation hardenable Al <sub>x</sub> CoCrFeNi high entropy alloy microstructures: Single phase FCC vs. dual phase FCC-BCC. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 739, 158-166	5.3	53
447	Deformation induced intermediate metastable lattice structures facilitate ordered B2 nucleation in a fcc-based high entropy alloy. <i>Materials Research Letters</i> , <b>2019</b> , 7, 40-46	7.4	14
446	Performance analysis of solar parabolic trough collectors driven combined supercritical CO <sub>2</sub> and organic Rankine cycle <b>2018</b> , 21, 451-464		20
445	Crystallographically degenerate B2 precipitation in a plastically deformed fcc-based complex concentrated alloy. <i>Materials Research Letters</i> , <b>2018</b> , 6, 171-177	7.4	31
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442	Characterization of 3? through-thickness friction stir welded 7050-T7451 Al alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 716, 55-62	5.3	11
441	Friction stir lap welding of stainless steel and plain carbon steel to enhance corrosion properties. <i>Journal of Materials Processing Technology</i> , <b>2018</b> , 259, 259-269	5.3	19
440	Thermo-mechanical response of single-phase face-centered-cubic Al <sub>x</sub> CoCrFeNi high-entropy alloy microcrystals. <i>Materials Research Letters</i> , <b>2018</b> , 6, 300-306	7.4	11
439	Microstructural comparison of friction-stir-welded aluminum alloy 7449 starting from different temps. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 9273-9286	4.3	8
438	Accelerated age hardening response by in-situ ultrasonic aging of a WE43 alloy. <i>Materials and Manufacturing Processes</i> , <b>2018</b> , 33, 104-108	4.1	2
437	Microstructure and wear resistance of an intermetallic-based Al <sub>0.25</sub> Ti <sub>0.75</sub> CoCrFeNi high entropy alloy. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 210, 197-206	4.4	34

436	Reciprocating sliding wear behavior of high entropy alloys in dry and marine environments. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 210, 162-169	4.4	59
435	Effect of friction stir processed microstructure on tensile properties of an Al-Zn-Mg-Sc alloy upon subsequent aging heat treatment. <i>Journal of Materials Science and Technology</i> , <b>2018</b> , 34, 214-218	9.1	26
434	Microstructure and mechanical properties of friction stir processed cast Eglin steel (ES-1). <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 709, 105-114	5.3	8
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432	Simultaneous enhancement of strength and ductility in an AlCoCrFeNi <sub>2.1</sub> eutectic high-entropy alloy via friction stir processing. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 766, 312-317	5.7	34
431	Hierarchical microstructure for improved fatigue properties in a eutectic high entropy alloy. <i>Scripta Materialia</i> , <b>2018</b> , 156, 105-109	5.6	59
430	Towards attaining dissimilar lap joint of CuCrZr alloy and 316L stainless steel using friction stir welding. <i>Science and Technology of Welding and Joining</i> , <b>2018</b> , 23, 715-720	3.7	12
429	Microstructures with extraordinary dynamic work hardening and strain rate sensitivity in Al <sub>0.3</sub> CoCrFeNi high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 734, 42-50	5.3	25
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427	Microstructure, mechanical properties and strengthening mechanisms of friction stir welded Kanthal APMT steel. <i>Journal of Nuclear Materials</i> , <b>2018</b> , 509, 435-444	3.3	7
426	Modifying transformation pathways in high entropy alloys or complex concentrated alloys via thermo-mechanical processing. <i>Acta Materialia</i> , <b>2018</b> , 153, 169-185	8.4	108
425	Towards Obtaining Sound Butt Joint Between Metallurgically Immiscible Pure Cu and Stainless Steel Through Friction Stir Welding. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2018</b> , 49, 2578-2582	2.3	22
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422	Grain size dependence of fatigue properties of friction stir processed ultrafine-grained Al-5024 alloy. <i>International Journal of Fatigue</i> , <b>2018</b> , 109, 1-9	5	28
421	3D Atom Probe Tomography Study on Segregation of Yttrium in Modified Al-Si Alloys. <i>Jom</i> , <b>2018</b> , 70, 1765-1770	2.1	5
420	Small-Scale Plastic Deformation of Nanocrystalline High Entropy Alloy. <i>Entropy</i> , <b>2018</b> , 20,	2.8	6
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406	Investigation of plastic deformation modes in Al <sub>0.1</sub> CoCrFeNi high entropy alloy. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 217, 308-314	4.4	24
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381	FSW of AlCu and AlCuMg Alloys <b>2017</b> , 47-77		1
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301	Nickel-Chromium Alloys: Engineered Microstructure via Spark Plasma Sintering. <i>Materials Science Forum</i> , <b>2014</b> , 783-786, 1099-1104	0.4	2
300	Synthesis of Al <sub>0.5</sub> CoCrCuFeNi and Al <sub>0.5</sub> CoCrFeMnNi High-Entropy Alloys by Laser Melting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2014</b> , 45, 1603-1607	2.5	8
299	Reliability-based fatigue life investigation for a medium-scale composite hydrokinetic turbine blade. <i>Ocean Engineering</i> , <b>2014</b> , 89, 230-242	3.9	22
298	Performance of a hydrokinetic energy system using an axial-flux permanent magnet generator. <i>Energy</i> , <b>2014</b> , 65, 631-638	7.9	19
297	Influence of strain and strain rate on microstructural evolution during superplasticity of Mg <sub>90</sub> Al <sub>10</sub> Zn sheet. <i>Journal of Materials Science</i> , <b>2013</b> , 48, 5633-5644	4.3	8
296	Precipitation in Uniaxially Stressed Mg-Nd Alloys During Creep Testing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 2905-2909	2.3	11
295	The Influence of Precipitation of Alpha <sub>2</sub> on Properties and Microstructure in TIMETAL 6-4. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 1706-1713 <sup>2-3</sup>		23
294	Ultrafine-Grained Al-Mg-Sc Alloy via Friction-Stir Processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 934-945	2.3	25
293	Macro- and Microstructural Studies of Laser-Processed WE43 (Mg-Y-Nd) Magnesium Alloy. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2013</b> , 44, 1190-1200	2.5	8

292	Effect of inhomogeneous deformation on anisotropy of AZ31 magnesium sheet. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 567, 101-109	5.3	27
291	Additivity of strengthening mechanisms in ultrafine grained AlMgSc alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 580, 175-183	5.3	61
290	Stress corrosion cracking susceptibility of ultrafine grained AlMgSc alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 565, 80-89	5.3	43
289	Superplastic behavior and microstructural stability of friction stir processed AZ91C alloy. <i>Journal of Materials Science</i> , <b>2013</b> , 48, 2635-2646	4.3	23
288	Microstructural evolution and mechanical properties of friction stir welded ODS alloy MA754. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 442, 1-6	3.3	24
287	Properties and Microstructure of Alumina-Niobium Nanocomposites Made by Novel Processing Methods <b>2013</b> , 225-234		0
286	Recent Developments of SPD Processing for Fabrication of Bulk Nanostructured Materials <b>2013</b> , 313-322		
285	Properties and Nanostructures of Materials Processed by SPD Techniques <b>2013</b> , 331-340		
284	Achieving High Strength and High Ductility in Friction Stir-Processed Cast Magnesium Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 3675-3684	2.3	31
283	Microstructure and mechanical properties of a friction stir processed TiAlV alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 573, 67-74	5.3	61
282	Superplasticity and microstructural stability in a Mg alloy processed by hot rolling and friction stir processing. <i>Scripta Materialia</i> , <b>2013</b> , 68, 447-450	5.6	28
281	Nano-Sized Grain Refinement Using Friction Stir Processing <b>2013</b> , 9-19		0
280	Fabrication of Carbon Nanotube Reinforced Aluminum Matrix Composites via Friction Stir Processing <b>2013</b> , 21-28		3
279	Flow Behavior of SiC Particles as Tracer Material during the Fabrication of MMCs by Friction Stir Processing <b>2013</b> , 29-38		2
278	Processing, Microstructure and Mechanical Property Correlation in Al-B4C Surface Composite Produced via Friction Stir Processing <b>2013</b> , 39-46		2
277	Influence of Heat Input on Friction Stir Welding for the ODS Steel MA956 <b>2013</b> , 127-138		1
276	Microstructural and Mechanical Investigations of Friction Stir Welded Ti/Ti- and Ti-Alloy/Ti-Alloy-Joints <b>2013</b> , 139-140		
275	Microstructure and Mechanical Properties of FSW Lap Joint between Pure Copper and 1018 Mild Steel Using Refractory Metal Pin Tools <b>2013</b> , 151-160		1

274	On Friction Stir Welding of Mg-Zn-RE-Rr Alloy Using Threaded Tools for Aerospace Application <b>2013</b> , 235-244		
273	Evolution of Microstructure and Texture in Friction Stir Processed Al-Mg-Mn Alloy. <i>Materials Science Forum</i> , <b>2013</b> , 753, 247-250	0.4	11
272	A Coupled Thermal/Material Flow Model of Friction Stir Welding Applied to Sc-Modified Aluminum Alloys <b>2013</b> , 329-338		1
271	High strain rate superplasticity in friction stir processed ultrafine grained MgAlZn alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 562, 69-76	5.3	62
270	Three-Dimensional Visualization of Metallic Flow and Control of FSW Joint Properties Using New FSP Technique <b>2013</b> , 277-288		
269	Microstructure and mechanical properties of friction stir welded oxide dispersion strengthened alloy. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 432, 274-280	3.3	44
268	Study of $\epsilon$ precipitates and their effect on the directional yield asymmetry of friction stir processed and aged AZ91C alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 560, 500-509	5.3	37
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266	Laser deposited biocompatible Ca-P coatings on Ti-6Al-4V: microstructural evolution and thermal modeling. <i>Materials Science and Engineering C</i> , <b>2013</b> , 33, 165-73	8.3	24
265	Dry Sliding Wear Behavior of Ultrafine Grained Commercial Purity Aluminum and Low Carbon Steel Produced by Severe Plastic Deformation Techniques <b>2013</b> , 409-418		1
264	Metastable Nanostructured Alloys Processed by Severe Plastic Deformation <b>2013</b> , 209-218		
263	Syntheses of Nd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> /Al <sub>2</sub> O <sub>3</sub> Nanocomposites by Spark-Plasma-Sintering and High-Energy Ball-Milling <b>2013</b> , 219-224		
262	Grain Refinement and Superplasticity in Magnesium Alloys <b>2013</b> , 469-478		2
261	Polycrystal Constitutive Modeling of ECAP: Texture and Microstructural Evolution <b>2013</b> , 585-594		1
260	Processing, Microstructure and Mechanical Property Correlation in Al-B <sub>4</sub> C Surface Composite Produced via Friction Stir Processing <b>2013</b> , 39-46		6
259	Magnesium Based Composite Via Friction Stir Processing <b>2013</b> , 245-252		1
258	Nano-Sized Grain Refinement Using Friction Stir Processing <b>2013</b> , 9-19		1
257	Effect of Initial Microstructure on the Microstructural Evolution and Joint Efficiency of a We43 Alloy During Friction Stir Welding <b>2013</b> , 253-261		

256	Hot deformation behavior of friction-stir processed strip-cast 5083 aluminum alloys with different Mn contents. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 534, 186-192	5.3	26
255	Material flow and microstructural evolution during friction stir spot welding of AZ31 magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 543, 200-209	5.3	63
254	Transition of deformation behavior in an ultrafine grained magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 549, 123-127	5.3	19
253	Thermal stability of friction stir processed ultrafine grained AlMgSc alloy. <i>Materials Characterization</i> , <b>2012</b> , 74, 1-10	3.9	30
252	In situ nitridation of titanium-molybdenum alloys during laser deposition. <i>Journal of Materials Science</i> , <b>2012</b> , 47, 7157-7166	4.3	20
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243	Ultrasonic underwater transmission of composite turbine blade structural health <b>2012</b> ,		1
242	Friction Stir Welding (FSW) of a Hardenable Alloy Steel in Dry and Wet Environments <b>2011</b> , 59-64		1
241	Evolution of Stir Zone Microstructure during FSP of Cast NiAl Bronze <b>2011</b> , 89-95		3
240	Characterization of Friction Stir Welded Sc-Modified Al-Zn-Mg-Cu Alloy Extrusions through Differential Scanning Calorimetry <b>2011</b> , 131-138		1
239	Effects of Forge Axis Force and Backing Plate Boundary Condition on FSW of AA6056 <b>2011</b> , 147-158		

238	Microstructural and Mechanical Properties of Friction Stir Welding Joints of 6082-T6 with 6063-T6 <b>2011</b> , 229-236		5
237	Evaluation of Microstructure and Mechanical Properties of Aluminum to Copper Friction Stir Butt Welds <b>2011</b> , 253-264		6
236	Mechanical Properties of Friction Stir Processed, Friction Stir Welded, and Gas Metal Arc Welded AA5083 Aluminum Plate <b>2011</b> , 265-280		5
235	Obtaining Sub-Micron Grain Size in AM60 Magnesium Alloy Using Friction Stir Processing <b>2011</b> , 299-306		
234	Friction Stir Processing as a Base Metal Preparation Technique for Modification of Fusion Weld Microstructures <b>2011</b> , 323-331		2
233	Towards Process Control of Friction Stir Welding for Different Aluminum Alloys <b>2011</b> , 381-388		8
232	Tool Load and Torque Study for Portable Friction Stir Welding in Aluminum <b>2011</b> , 373-379		3
231	Effect of Coating on Mechanical Properties of Magnesium Alloy Friction Stir Spot Welds <b>2011</b> , 401-407		1
230	Effect of Friction Stir Processing on Corrosion Behavior of AA5083 Aluminum Alloy <b>2011</b> , 307-313		
229	Ultrathin alumina-coated carbon nanotubes as an anode for high capacity Li-ion batteries. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 13621		61
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226	Effect of Heat Index on Microstructure and Mechanical Behavior of Friction Stir Processed AZ31 <b>2011</b> , 205-209		2
225	Microstructure and Mechanical Properties of Mg-1.7Y-1.2Zn Sheet Processed by Hot Rolling and Friction Stir Processing <b>2011</b> , 565-570		
224	Friction stir lap welded advanced high strength steels: Microstructure and mechanical properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2011</b> , 528, 8111-8119	5.3	55
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150	Comparison of incipient plasticity in bcc and fcc metals studied using nanoindentation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2006</b> , 426, 208-213	5.3	30
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