

Ryan T Ott

List of Publications by Year in descending order

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47
papers

3,766
citations

257450

24
h-index

243625

44
g-index

49
all docs

49
docs citations

49
times ranked

3474
citing authors

#	ARTICLE	IF	CITATIONS
1	Additively manufactured hierarchical stainless steels with high strength and ductility. <i>Nature Materials</i> , 2018, 17, 63-71.	27.5	1,517
2	Metallic glass matrix composite with precipitated ductile reinforcement. <i>Applied Physics Letters</i> , 2002, 81, 1020-1022.	3.3	330
3	Defective twin boundaries in nanotwinned metals. <i>Nature Materials</i> , 2013, 12, 697-702.	27.5	255
4	Fatigue-resistant high-performance elastocaloric materials made by additive manufacturing. <i>Science</i> , 2019, 366, 1116-1121.	12.6	229
5	Evaluation of an Al-Ce alloy for laser additive manufacturing. <i>Acta Materialia</i> , 2017, 126, 507-519.	7.9	133
6	Controlling shear band behavior in metallic glasses through microstructural design. <i>Intermetallics</i> , 2002, 10, 1163-1166.	3.9	130
7	Characterization and modeling of a martensitic transformation in a platinum modified diffusion aluminide bond coat for thermal barrier coatings. <i>Acta Materialia</i> , 2003, 51, 4279-4294.	7.9	125
8	Systematic Mapping of Icosahedral Short-Range Order in a Melt-Spun $Zr_{36}Cu_{93}$ Glass. <i>Physical Review Letters</i> , 2013, 110, 205505.	7.8	93
9	Micromechanics of deformation of metallic-glass matrix composites from in situ synchrotron strain measurements and finite element modeling. <i>Acta Materialia</i> , 2005, 53, 1883-1893.	7.9	88
10	Ideal maximum strengths and defect-induced softening in nanocrystalline-nanotwinned metals. <i>Nature Materials</i> , 2019, 18, 1207-1214.	27.5	87
11	Elastocaloric cooling of additive manufactured shape memory alloys with large latent heat. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 404001.	2.8	70
12	Subsurface Cooling Rates and Microstructural Response during Laser Based Metal Additive Manufacturing. <i>Scientific Reports</i> , 2020, 10, 1981.	3.3	64
13	Achieving Large Uniform Tensile Ductility in Nanocrystalline Metals. <i>Physical Review Letters</i> , 2010, 105, 215502.	7.8	54
14	“Crystal Genes”™ in Metallic Liquids and Glasses. <i>Scientific Reports</i> , 2016, 6, 23734.	3.3	52
15	Optimization of strength and ductility in nanotwinned ultra-fine grained Ag: Twin density and grain orientations. <i>Acta Materialia</i> , 2015, 96, 378-389.	7.9	50
16	Laser-Induced Keyhole Defect Dynamics during Metal Additive Manufacturing. <i>Advanced Engineering Materials</i> , 2019, 21, 1900455.	3.5	45
17	Large-scale production of (GeTe) (AgSbTe ₂) _{100-x} (x=75, 80, 85, 90) with enhanced thermoelectric properties via gas-atomization and spark plasma sintering. <i>Acta Materialia</i> , 2017, 128, 43-53.	7.9	44
18	Manufacturing Processes for Permanent Magnets: Part I—Sintering and Casting. <i>Jom</i> , 2022, 74, 1279-1295.	1.9	40

#	ARTICLE	IF	CITATIONS
19	High-energy X-ray measurements of structural anisotropy and excess free volume in a homogeneously deformed Zr-based metallic glass. <i>Acta Materialia</i> , 2006, 54, 2463-2471.	7.9	32
20	Isothermal nature of martensite formation in Pt-modified β -NiAl alloys. <i>Acta Materialia</i> , 2007, 55, 2433-2441.	7.9	32
21	Structure and properties of Zr-Ta-Cu-Ni-Al bulk metallic glasses and metallic glass matrix composites. <i>Journal of Non-Crystalline Solids</i> , 2003, 317, 158-163.	3.1	31
22	Enhanced thermal coarsening resistance in a nanostructured aluminum-cerium alloy produced by additive manufacturing. <i>Materials and Design</i> , 2021, 209, 109988.	7.0	31
23	Ageless Aluminum-Cerium-Based Alloys in High-Volume Die Casting for Improved Energy Efficiency. <i>Jom</i> , 2018, 70, 866-871.	1.9	26
24	Deformation behavior of an amorphous Cu _{64.5} Zr _{35.5} alloy: A combined computer simulation and experimental study. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	24
25	Effect of reinforcement phase on the mechanical property of tungsten nanocomposite synthesized by spark plasma sintering. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 54, 14-18.	3.8	20
26	Anelastic strain and structural anisotropy in homogeneously deformed Cu _{64.5} Zr _{35.5} metallic glass. <i>Acta Materialia</i> , 2008, 56, 5575-5583.	7.9	18
27	Discovery of a metastable Al ₂₀ Sm ₄ phase. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	18
28	Effect of Temperature on the Nano/Microstructure and Mechanical Behavior of Nanotwinned Ag Films. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 4078-4085.	2.2	17
29	Anisotropic atomic structure in a homogeneously deformed metallic glass. <i>Journal of Materials Research</i> , 2007, 22, 382-388.	2.6	13
30	Manufacturing Processes for Permanent Magnets: Part II—Bonding and Emerging Methods. <i>Jom</i> , 2022, 74, 2492-2506.	1.9	12
31	Casting Characteristics of High Cerium Content Aluminum Alloys. <i>Minerals, Metals and Materials Series</i> , 2017, , 205-211.	0.4	11
32	Enhanced mechanical performance via laser induced nanostructure formation in an additively manufactured lightweight aluminum alloy. <i>Applied Materials Today</i> , 2021, 22, 100972.	4.3	10
33	Imprinting bulk amorphous alloy at room temperature. <i>Scientific Reports</i> , 2015, 5, 16540.	3.3	8
34	Synthesis of high-strength W-Ta ultrafine-grain composites. <i>Journal of Materials Research</i> , 2008, 23, 133-139.	2.6	7
35	Solute-solute correlations responsible for the prepeak in structure factors of undercooled Al-rich liquids: a molecular dynamics study. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 205701.	1.8	7
36	An abnormal meta-stable nanoscale eutectic reaction revealed by in-situ observations. <i>Acta Materialia</i> , 2019, 164, 697-703.	7.9	7

#	ARTICLE	IF	CITATIONS
37	Design of an additively manufactured functionally graded material of 316 stainless steel and Ti-6Al-4V with Ni-20Cr, Cr, and V intermediate compositions. Additive Manufacturing, 2022, 51, 102649.	3.0	7
38	Atomic cooperation in enhancing magnetism: (Fe, Cu)-doped CeCo5. Journal of Alloys and Compounds, 2020, 839, 155549.	5.5	6
39	Glass transition in a marginal glass-forming alloy studied by dynamic mechanical analysis. Journal of Applied Physics, 2014, 116, .	2.5	5
40	Thermally activated diffusion of copper into amorphous carbon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 061401.	2.1	4
41	Effect of geometrical constraint condition on the formation of nanoscale twins in the Ni-based metallic glass composite. Philosophical Magazine Letters, 2014, 94, 351-360.	1.2	3
42	Magnetostrictive performance of additively manufactured CoFe rods using the LENSTMsystem. AIP Advances, 2018, 8, 056403.	1.3	3
43	Anodization Compatibility of Eutectic Aluminum-Cerium Alloys. Minerals, Metals and Materials Series, 2021, , 79-84.	0.4	2
44	Thermodynamic database for the Co-Pr system. Data in Brief, 2016, 6, 492-494.	1.0	1
45	Tracking Metastable Phase Selection during Devitrification in a Metallic Glass. Microscopy and Microanalysis, 2019, 25, 1874-1875.	0.4	0
46	Microstructural evolutions, phase transformations and hard magnetic properties in polycrystalline Ce-Co-Fe-Cu alloys. Materials Chemistry and Physics, 2022, 286, 126179.	4.0	0
47	Additively Manufactured High-Performance Elastocaloric Materials with Long Fatigue Life. , 2022, , .		0