

# John E Allison

## List of Publications by Year in descending order

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28  
papers

924  
citations

471509

17  
h-index

552781

26  
g-index

32  
all docs

32  
docs citations

32  
times ranked

654  
citing authors

#	ARTICLE	IF	CITATIONS
1	Potential Magnesium Alloys for High Temperature Die Cast Automotive Applications: A Review. <i>Materials and Manufacturing Processes</i> , 2003, 18, 687-717.	4.7	125
2	PRISMS-Plasticity: An open-source crystal plasticity finite element software. <i>Computational Materials Science</i> , 2019, 169, 109078.	3.0	86
3	Small fatigue crack growth in metallic materials: A model and its application to engineering alloys. <i>Acta Materialia</i> , 2007, 55, 6606-6616.	7.9	67
4	The Materials Commons: A Collaboration Platform and Information Repository for the Global Materials Community. <i>Jom</i> , 2016, 68, 2035-2044.	1.9	57
5	The effects of heat treatment on the response of WE43 Mg alloy: crystal plasticity finite element simulation and SEM-DIC experiment. <i>International Journal of Plasticity</i> , 2021, 137, 102917.	8.8	56
6	The effects of heat treatment on very high cycle fatigue behavior in hot-rolled WE43 magnesium. <i>International Journal of Fatigue</i> , 2016, 93, 372-386.	5.7	52
7	Multiscale modeling of twinning and detwinning behavior of HCP polycrystals. <i>International Journal of Plasticity</i> , 2020, 127, 102653.	8.8	44
8	The Role of Microstructure on Ductility of Die-Cast AM50 and AM60 Magnesium Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 286-297.	2.2	41
9	Quantification of cyclic twinning-detwinning behavior during low-cycle fatigue of pure magnesium using high energy X-ray diffraction. <i>International Journal of Fatigue</i> , 2019, 125, 314-323.	5.7	39
10	Misfit-driven $\hat{\gamma}$ precipitate composition and morphology in Mg-Nd alloys. <i>Acta Materialia</i> , 2017, 136, 378-389.	7.9	36
11	Early precipitate morphologies in Mg-Nd-(Zr) alloys. <i>Scripta Materialia</i> , 2017, 128, 14-17.	5.2	34
12	PRISMS-Fatigue computational framework for fatigue analysis in polycrystalline metals and alloys. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	34
13	Dislocation pile-ups at $\hat{\gamma}$ precipitate interfaces in Mg-rare earth (RE) alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 742, 278-286.	5.6	32
14	Deformation twinning and detwinning in extruded Mg-4Al: In-situ experiment and crystal plasticity simulation. <i>International Journal of Plasticity</i> , 2022, 155, 103345.	8.8	26
15	Effects of Boundary Conditions on Microstructure-Sensitive Fatigue Crystal Plasticity Analysis. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 393-412.	2.6	24
16	Simulated effects of sample size and grain neighborhood on the modeling of extreme value fatigue response. <i>Acta Materialia</i> , 2022, 224, 117524.	7.9	24
17	Die Castability Assessment of Magnesium Alloys for High Temperature Applications: Part 1 of 2. , 2000, , .		19
18	The Influence of Al Content and Thickness on the Microstructure and Tensile Properties in High-Pressure Die Cast Magnesium Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 1999-2014.	2.2	17

#	ARTICLE	IF	CITATIONS
19	The Recrystallization Behavior of Unalloyed Mg and a Mg-Al Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1492-1508.	2.2	16
20	Crystal Plasticity Finite Element Modeling of Extension Twinning in WE43 Mg Alloys: Calibration and Validation. Integrating Materials and Manufacturing Innovation, 2021, 10, 488-507.	2.6	16
21	Effects of alloying and processing on ultrasonic fatigue behavior in binary Ti-Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 756, 564-577.	5.6	13
22	Interaction of Glide Dislocations with Extended Precipitates in Mg-Nd alloys. Scientific Reports, 2018, 8, 3570.	3.3	11
23	Dislocation cross-slip in precipitation hardened Mg-Al-Nd alloys. Journal of Alloys and Compounds, 2021, 859, 157858.	5.5	11
24	Using quality mapping to predict spatial variation in local properties and component performance in Mg alloy thin-walled high-pressure die castings: an ICME approach and case study. Integrating Materials and Manufacturing Innovation, 2015, 4, 81-118.	2.6	10
25	The dynamics of recrystallized grains during static recrystallization in a hot-compressed Mg-3.2Zn-0.1Ca wt.% alloy using in-situ far field high-energy diffraction microscopy. Acta Materialia, 2022, 234, 118039.	7.9	9
26	Creep and Bolt Load Retention Behavior of Die Cast Magnesium Alloys for High Temperature Applications: Part 2 of 2. , 0, , .		7
27	Measuring and Modeling Microsegregation in High-Pressure Die Cast Mg-Al Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2730-2742.	2.2	2
28	Understanding Twinning-Detwinning Behavior of Unalloyed Mg During Low-Cycle Fatigue Using High Energy X-ray Diffraction. Minerals, Metals and Materials Series, 2021, , 71-72.	0.4	0