Alan M Russell

List of Publications by Year
in descending order

72 papers	2,796 citations	201385 27 h-index	189595 50 g-index
102 all docs	102 docs citations	102 times ranked	2071 citing authors

#	Article	IF	Citations
1	Understanding the role of Ca segregation on thermal stability, electrical resistivity and mechanical strength of nanostructured aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 798, 140108.	2.6	20
2	Microstructural evolution and phase transformation in the liquid-solid Al/Ni diffusion couple. Philosophical Magazine, 2019, 99, 1103-1120.	0.7	7
3	Investigations of Î³â€², Î³â€³ and Î´ precipitates in heat-treated Inconel 718 alloy fabricated by selective laser melting. Materials Characterization, 2018, 136, 398-406.	1.9	157
4	Effects of microstructure and crystallography on mechanical properties of cold-rolled SAE1078 pearlitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 709, 115-124.	2.6	16
5	Effect of heat treatment on microstructure evolution of Inconel 718 alloy fabricated by selective laser melting. Journal of Alloys and Compounds, 2018, 764, 639-649.	2.8	150
6	Microstructure and oxidation behavior of Al + Cr co-deposited coatings on nickel-based superalloys. Surface and Coatings Technology, 2017, 310, 273-277.	2.2	12
7	Effect of quenching and tempering process on sulfide stress cracking susceptibility in API-5CT-C110 casing steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 378-387.	2.6	47
8	TEM study of the martensitic phases in the ductile DyCu and YCu intermetallic compounds. Acta Materialia, 2017, 132, 345-353.	3.8	4
9	A deformation-processed Al-matrix/Ca-nanofilamentary composite with low density, high strength, and high conductivity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 690, 348-354.	2.6	32
10	Production of fine calcium powders by centrifugal atomization with rotating quench bath. Powder Technology, 2017, 308, 84-93.	2.1	23
11	Effect of microstructure and crystallography on sulfide stress cracking in API-5CT-C110 casing steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 671, 244-253.	2.6	39
12	A survey of flaws near welds detected by side angle ultrasound examination of anhydrous ammonia nurse tanks. Journal of Loss Prevention in the Process Industries, 2016, 43, 263-272.	1.7	3
13	Microstructural evolution of TiAl-based alloys deformed by high-pressure torsion. Acta Materialia, 2015, 98, 103-112.	3.8	32
14	Leg weld fatigue cracks in anhydrous ammonia nurse tanks. Case Studies in Engineering Failure Analysis, 2015, 3, 73-79.	1.2	1
15	Microstructure and mechanical properties of an ultrafine Tiâ€“Siâ€“Nb alloy. Materials Chemistry and Physics, 2015, 163, 512-517.	2.0	5
16	Predicted Growth Of Through-thickness Stress Corrosion Cracks In Anhydrous Ammonia Nurse TanksÂ. Advanced Materials Letters, 2015, 6, 783-789.	0.3	1
17	Phase field study of interfacial diffusion-driven spheroidization in a composite comprised of two mutually insoluble phases. Journal of Chemical Physics, 2014, 140, 124706.	1.2	16
18	Observations of a dynamical-to-kinematic diffraction transition in plastically deformed polycrystalline intermetallic YCu. Acta Materialia, 2014, 70, 307-315.	3.8	3

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19	A dislocation-based, strainâ€“gradientâ€“plasticity strengthening model for deformation processed metalâ€“metal composites. Journal of Materials Science, 2014, 49, 2787-2794.	1.7	27
20	Self-assembled nano- to micron-size fibers from molten R11Ni4In9 intermetallics. Acta Materialia, 2014, 73, 27-36.	3.8	11
21	Modeling the electrical resistivity of deformation processed metalâ€“metal composites. Acta Materialia, 2014, 77, 151-161.	3.8	113
22	Formation of a bimodal structure in ultrafine Tiâ€“Feâ€“Nb alloys with high-strength and enhanced ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 609, 60-64.	2.6	31
23	Properties of AlMgB14 hot pressed with additions of ZrB2 and HfB2. Powder Technology, 2013, 235, 968-974.	2.1	7
24	The microstructure-strength relationship in a deformation processed Alâ€“Ca composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 570, 106-113.	2.6	28
25	Prospects for novel deformation processed Al/Ca composite conductors for overhead high voltage direct current (HVDC) power transmission. Electric Power Systems Research, 2013, 105, 105-114.	2.1	17
26	Transmission electron microscopy study of the microstructure of a Tiâ€“Feâ€“Zr alloy. Materials Characterization, 2013, 83, 43-48.	1.9	5
27	Microstructure and oxidation behavior of Al and Hf co-deposition coatings on nickel-based superalloys. Surface and Coatings Technology, 2013, 224, 57-61.	2.2	5
28	Reduced-temperature processing and consolidation of ultra-refractory Ta4HfC5. International Journal of Refractory Metals and Hard Materials, 2013, 41, 293-299.	1.7	37
29	Mechanical alloying of carbon nanotube and Al6061 powder for metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 532, 558-566.	2.6	34
30	Effects of mechanical alloying on an Al6061â€“CNT composite fabricated by semi-solid powder processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 164-172.	2.6	80
31	Tensile Properties Of Strontium MetalÂ. Advanced Materials Letters, 2012, 3, 362-364.	0.3	0
32	Transmission electron microscopy study of the microstructure of a YCu ductile intermetallic compound, the influence of the start metal purity. Scripta Materialia, 2011, 64, 821-823.	2.6	7
33	Formation, densification, and selected mechanical properties of hot pressed Al4SiC4, Al4SiC4 with 30vol.% WC, and Al4SiC4 with 30vol.% TiC. Ceramics International, 2011, 37, 3117-3121.	2.3	12
34	The deformation behavior of DyCu ductile intermetallic compound under compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7173-7177.	2.6	11
35	Enhanced wear resistance in AlMgB14â€“TiB2 composites. Wear, 2011, 271, 640-646.	1.5	25
36	Mechanical properties and determination of slip systems of the B2 YZn intermetallic compound. Acta Materialia, 2010, 58, 4298-4304.	3.8	17

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37	Estimation of surface energy and bonding between AlMgB14 and TiB2. Journal of Physics and Chemistry of Solids, 2010, 71, 824-826.	1.9	9
38	Analysis of wear mechanisms in low-friction AlMgB14â€“TiB2 coatings. Surface and Coatings Technology, 2010, 205, 2296-2301.	2.2	52
39	X-ray diffraction study of the phase purity, order and texture of ductile B2 intermetallics. Acta Materialia, 2010, 58, 2788-2796.	3.8	10
40	Microstructure investigations of Pt-modified Î³â€²-Ni₃Al + Î³-Ni coatings on Ni-based superalloys. Journal of Materials Research, 2010, 25, 1191-1195.	1.2	4
41	Belt abrasion resistance and cutting tool studies on new ultra-hard boride materials. Tribology International, 2009, 42, 706-713.	3.0	26
42	Erosion resistance of TiB2â€“ZrB2 composites. Wear, 2009, 267, 136-143.	1.5	18
43	Microstructure and wear resistance of low temperature hot pressed TiB2. Wear, 2009, 266, 1171-1177.	1.5	15
44	Influence of the electronic structure on the ductile behavior of B2 CsCl-type AB intermetallics. Acta Materialia, 2009, 57, 5876-5881.	3.8	90
45	Dislocation core structures in YAg, a ductile B2 CsCl-type intermetallic compound. Scripta Materialia, 2008, 58, 1066-1069.	2.6	34
46	Microstructure and mechanical properties of the Dy50(Cu50â^'xNix) intermetallic B2 CsCl-type compounds. Scripta Materialia, 2008, 59, 810-813.	2.6	11
47	Microstructure and properties of a silverâ€“erbium oxide alloy. Journal of Alloys and Compounds, 2008, 454, 292-296.	2.8	5
48	Determination of slip systems and their relation to the high ductility and fracture toughness of the B2 DyCu intermetallic compound. Acta Materialia, 2007, 55, 3765-3770.	3.8	34
49	The stability of Pt nanofilaments in a Au-matrix composite. Gold Bulletin, 2007, 40, 199-205.	3.2	6
50	Direct reaction synthesis of Mg2B14 from elemental precursors. Scripta Materialia, 2006, 54, 813-816.	2.6	18
51	Fracture toughness of polycrystalline YCu, DyCu, and YAg. Intermetallics, 2005, 13, 559-564.	1.8	71
52	Mechanical properties of single crystal YCu and (Tb0.88Dy0.12)Zn B2 intermetallic compounds. Intermetallics, 2005, 13, 565-571.	1.8	49
53	Textureâ€“strength relationships in a deformation processed Alâ€“Sn metalâ€“metal composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 373, 99-106.	2.6	9
54	Mechanical properties of single crystal YAg. Acta Materialia, 2004, 52, 4033-4040.	3.8	81

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55	Ab initio calculation of bulk and defect properties of ductile rare-earth intermetallic compounds. Acta Materialia, 2004, 52, 4849-4857.	3.8	100
56	Tensile properties of magnetostrictive ironâ€“gallium alloys. Acta Materialia, 2004, 52, 5043-5050.	3.8	202
57	A new fracture-resistant binder phase for use with AlMgB14 and other ultra-hard ceramics. Journal of Alloys and Compounds, 2004, 366, 145-151.	2.8	19
58	Thermal stability of deformation processed goldâ€“silver composite. Scripta Materialia, 2003, 49, 399-403.	2.6	4
59	Magnetization study of the ultra-hard material MgAlB14. Journal of Magnetism and Magnetic Materials, 2003, 265, 23-32.	1.0	7
60	Ductility in Intermetallic Compounds. Advanced Engineering Materials, 2003, 5, 629-639.	1.6	99
61	Al2MgO4, Fe3O4, and FeB impurities in AlMgB14. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 117-122.	2.6	25
62	A family of ductile intermetallic compounds. Nature Materials, 2003, 2, 587-591.	13.3	310
63	Mechanical properties of magnetostrictive iron-gallium alloys. , 2003, 5053, 534.		12
64	Coefficient of thermal expansion of AlMgB14. Scripta Materialia, 2002, 46, 629-633.	2.6	38
65	Pulsed laser deposition of AlMgB14 on carbide inserts for metal cutting. Surface and Coatings Technology, 2002, 155, 112-120.	2.2	50
66	Microstructure and nanomechanical properties of Alâ€“Mgâ€“Bâ€“Ti films synthesized by pulsed laser deposition. Thin Solid Films, 2002, 418, 129-135.	0.8	30
67	A deformation processed Al-20%Sn in-situ composite. Scripta Materialia, 2001, 44, 935-940.	2.6	13
68	A new class of ultra-hard materials based on AlMgB14. Scripta Materialia, 2000, 42, 597-602.	2.6	154
69	Advances in deformation processed gold composites. Gold Bulletin, 2000, 33, 128-133.	3.2	5
70	A comparison of strengthening mechanisms in rolled and axisymmetrically deformed Ti-20Y composites. Journal of Materials Science, 1999, 34, 1447-1460.	1.7	2
71	A high-strength, high-conductivity Alâ€“Ti deformation processed metal metal matrix composite. Composites Part A: Applied Science and Manufacturing, 1999, 30, 239-247.	3.8	26
72	A new method for strengthening gold. Gold Bulletin, 1998, 31, 88-92.	3.2	9