Reza Abbaschian

List of Publications by Year
in descending order

58	1,594	257357	302012
papers	citations	24 h-index	39 g-index

59	59	59	1258
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Vaporization-Controlled Energy Release Mechanisms Underlying the Exceptional Reactivity of Magnesium Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 17164-17174.	4.0	7
2	Magnetic-Field Directed Vapor-Phase Assembly of Low Fractal Dimension Metal Nanostructures: Experiment and Theory. Journal of Physical Chemistry Letters, 2021, 12, 4085-4091.	2.1	8
3	In-Situ Imaging of Molten High-Entropy Alloys Using Cold Neutrons. Journal of Imaging, 2019, 5, 29.	1.7	3
4	Diffuse Î³/Î³â€² interfaces in the hierarchical dual-phase nanostructure of a Ni-Al-Ti alloy. Materials Characterization, 2019, 153, 284-293.	1.9	5
5	On the control of structural/compositional ratio of coherent order-disorder interfaces. Journal of Alloys and Compounds, 2019, 777, 1222-1233.	2.8	6
6	Solidification microstructures and calculated mixing enthalpies in CoCrCu containing alloys. Materials Today Communications, 2018, 15, 1-10.	0.9	15
7	Microstructure and mechanical properties of heat treated Al1.25CoCrCuFeNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 714, 146-159.	2.6	42
8	Liquid Phase Separation in High-Entropy Alloysâ€"A Review. Entropy, 2018, 20, 890.	1.1	33
9	In-Situ Imaging of Liquid Phase Separation in Molten Alloys Using Cold Neutrons. Journal of Imaging, 2018, 4, 5.	1.7	7
10	Liquid phase separation in transition element high entropy alloys. Intermetallics, 2017, 86, 59-72.	1.8	38
11	Nucleation and growth kinetics of graphene layers from a molten phase. Carbon, 2013, 51, 110-123.	5.4	66
12	Melt separation phenomena in CoNiCuAlCr high entropy alloy containing silver. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 633-642.	2.6	43
13	Synthesis of curved graphene layers on metallic dendrites. Materials Letters, 2012, 88, 129-131.	1.3	7
14	Graphite crystals grown within electromagnetically levitated metallic droplets. Acta Materialia, 2012, 60, 7123-7131.	3.8	7
15	High pressure and high temperature annealing on nitrogen aggregation in lab-grown diamonds. Journal of Materials Science, 2011, 46, 6264-6272.	1.7	9
16	Growth of graphene and graphite nanocrystals from a molten phase. Journal of Materials Science, 2011, 46, 6255-6263.	1.7	36
17	Influence of solidification variables on the microporosity formation on Alâ€"Cu (4.5Âwt%) alloy with axial heat processing. Journal of Materials Science, 2011, 46, 6213-6223.	1.7	6
18	Investigating the effects of bulk supercooling and rapid solidification on Coâ€"Niâ€"Ga ferromagnetic shape memory alloys. Journal of Materials Science, 2011, 46, 6224-6234.	1.7	7

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19	Growth of large-area graphene films from metal-carbon melts. Journal of Applied Physics, 2010, 108, .	1.1	123
20	Properties of graphene produced by the high pressureâ€“high temperature growth process. Micro and Nano Letters, 2008, 3, 29.	0.6	56
21	Enhanced Morphological Stability in Sb-Doped Ge. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 100-115.	1.1	5
22	Solute-Driven Melting Kinetics in the Sn-Bi System. Materials Research Society Symposia Proceedings, 2006, 979, 1.	0.1	0
23	The experimentalâ€“numerical investigation of instability of faceted Ge doped by Sb growth on the base of AHP method. Journal of Crystal Growth, 2005, 275, e229-e236.	0.7	10
24	The Seebeck coefficient of the solid and liquid germanium. Journal of Materials Science, 2005, 40, 1475-1479.	1.7	3
25	High pressureâ€“high temperature growth of diamond crystals using split sphere apparatus. Diamond and Related Materials, 2005, 14, 1916-1919.	1.8	60
26	Recent Progress in Growth of Diamond Crystals. , 2005, , 193-202.		3
27	Detached crystal growth from melt by the axial heat processing technique. Journal of Crystal Growth, 2004, 271, 37-45.	0.7	12
28	Antimony-doped germanium single crystals grown from the melt by the axial heat processing (AHP) technique. Journal of Crystal Growth, 2004, 262, 581-593.	0.7	15
29	Modelling of binary alloy solidification in the MEPHISTO experiment. Comptes Rendus - Mecanique, 2004, 332, 403-411.	2.1	5
30	A Study on the Morphological Stability of Faceted Interfaces in Antimony-Doped Germanium Single Crystals Grown by the Axial Heat Processing Method. Crystal Growth and Design, 2004, 4, 377-381.	1.4	12
31	Evaluation of the stable and metastable Cu-Co-Fe phase diagrams. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2002, 26, 375-384.	0.7	41
32	A computational study of binary alloy solidification in the MEPHISTO experiment. International Journal of Heat and Fluid Flow, 2002, 23, 258-268.	1.1	11
33	Gemesis Laboratory-Created Diamonds. Gems & Gemology, 2002, 38, 301-309.	0.4	74
34	Bridgman Crystal Growth of an Alloy With Thermosolutal Convection Under Microgravity Conditions. Journal of Heat Transfer, 2001, 123, 990-998.	1.2	5
35	Single Crystal Growth of Gallium Nitride Substrates Using an High Pressure High Temperature Process. Materials Research Society Symposia Proceedings, 2000, 622, 481.	0.1	0
36	A computational study of transient plane front solidification of alloys in a Bridgman apparatus under microgravity conditions. International Journal of Heat and Mass Transfer, 2000, 43, 963-980.	2.5	36

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37	In-situ processing of NiAlâ€“alumina composites by thermite reaction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 282, 1-7.	2.6	52
38	The metastable liquid miscibility gap in Cu-Co-Fe alloys. Journal of Phase Equilibria and Diffusion, 2000, 21, 25-31.	0.3	49
39	High-pressure process to produce GaN crystals. Applied Physics Letters, 2000, 77, 4172-4174.	1.5	10
40	Microgravity growth of GaSb single crystals by the liquid encapsulated melt zone (LEMZ) technique. Journal of Crystal Growth, 1999, 200, 1-12.	0.7	23
41	Desorption kinetics of carbon and oxygen in liquid niobium. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1998, 29, 1309-1314.	1.0	2
42	Synthesis and microstructural characterization of NiAlî—¸Al2O3 functionally gradient composites. Intermetallics, 1998, 6, 229-241.	1.8	32
43	Absorption kinetics and mechanisms of carbon monoxide in liquid niobium. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1997, 28, 455-463.	1.0	2
44	Al2O3Coatings as Diffusion Barriers Deposited from Particulate-Containing Sol-Gel Solutions. Journal of the American Ceramic Society, 1995, 78, 3376-3382.	1.9	15
45	Fabrication of SiC-Whisker-Reinforced MoSi2 Composites by Tape Casting. Journal of the American Ceramic Society, 1995, 78, 3129-3132.	1.9	8
46	Reactive hot compaction of NiAl with in situ alumina reinforcement. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 195, 101-111.	2.6	24
47	Microstructure and mechanical properties of metal/oxide and metal/silicide interfaces. Acta Metallurgica Et Materialia, 1995, 43, 4267-4279.	1.9	31
48	Toughening MoSi2 with niobium metalâ€"Effects of size and orientation of ductile laminae. Acta Metallurgica Et Materialia, 1994, 42, 213-223.	1.9	39
49	Control of the Interfacial Reactions in Nb-Toughened MoSi2. Journal of the American Ceramic Society, 1993, 76, 2305-2311.	1.9	11
50	The Nb-Si (Niobium-Silicon) system. Journal of Phase Equilibria and Diffusion, 1993, 14, 502-509.	0.3	206
51	Interfacial modification of Nb/MoSi2 composites and its effects on fracture toughness. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 155, 135-145.	2.6	56
52	In situ formation of an alumina interface coating in reactively synthesized NbAl3î—¸Nb composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 144, 11-23.	2.6	9
53	Processing and mechanical properties of niobium-reinforced MoSi2 composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 144, 277-285.	2.6	46
54	Growth kinetics of solid-liquid Ga interfaces: Part II. Theoretical. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 1271-1286.	1.4	84

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55	Ductile Phase Toughening of MoSi2-Chemical Compatibility and Fracture Toughness. Materials Research Society Symposia Proceedings, 1990, 194, 399.	0.1	11
56	The Ge-Mn (Germanium-Manganese) system. Journal of Phase Equilibria and Diffusion, 1990, 11, 460-468.	0.3	39
57	The Mn-Si (Manganese-Silicon) system. Journal of Phase Equilibria and Diffusion, 1990, 11, 468-480.	0.3	29
58	In Situ Coating Formed in Intermetallic Matrix Composites. Materials and Processing Report, 1990, 5, 4-5.	0.0	0