Ravi S Kottada

List of Publications by Year
in descending order

69 papers	2,895 citations	236612 25 h-index	168136 53 g-index
71 all docs	71 docs citations	71 times ranked	2059 citing authors

#	Article	IF	Citations
1	Alloying behavior in multi-component AlCoCrCuFe and NiCoCrCuFe high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 83-89.	2.6	326
2	Alloying, thermal stability and strengthening in spark plasma sintered AlxCoCrCuFeNi high entropy alloys. Journal of Alloys and Compounds, 2014, 583, 419-426.	2.8	220
3	Thermal stability and grain boundary strengthening in ultrafine-grained CoCrFeNi high entropy alloy composite. Materials and Design, 2017, 134, 426-433.	3.3	195
4	Thermal Spray High-Entropy Alloy Coatings: A Review. Journal of Thermal Spray Technology, 2020, 29, 857-893.	1.6	162
5	Exceptional resistance to grain growth in nanocrystalline CoCrFeNi high entropy alloy at high homologous temperatures. Journal of Alloys and Compounds, 2016, 662, 361-367.	2.8	159
6	Plasma-Sprayed High Entropy Alloys: Microstructure and Properties of AlCoCrFeNi and MnCoCrFeNi. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 791-800.	1.1	149
7	Phase formation in mechanically alloyed AlxCoCrCuFeNi (xÂ=Â0.45, 1, 2.5, 5Âmol) high entropy alloys. Intermetallics, 2013, 32, 119-126.	1.8	131
8	Additive manufacturing of an aluminum matrix composite reinforced with nanocrystalline high-entropy alloy particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 193-203.	2.6	131
9	Multiscale mechanical performance and corrosion behaviour of plasma sprayed AlCoCrFeNi high-entropy alloy coatings. Journal of Alloys and Compounds, 2021, 854, 157140.	2.8	107
10	Phase Evolution and Densification Behavior of Nanocrystalline Multicomponent High Entropy Alloys During Spark Plasma Sintering. Jom, 2013, 65, 1797-1804.	0.9	93
11	Hot deformation behaviour and processing map of Co-Cu-Fe-Ni-Ti eutectic high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 664, 227-235.	2.6	93
12	Understanding the microstructural evolution of high entropy alloy coatings manufactured by atmospheric plasma spray processing. Applied Surface Science, 2020, 505, 144117.	3.1	91
13	Hot corrosion studies on Ni-base superalloy at 650Â°C under marine-like environment conditions using three salt mixture (Na2SO4+NaCl+NaVO3). Corrosion Science, 2016, 105, 109-119.	3.0	75
14	First report on cold-sprayed AlCoCrFeNi high-entropy alloy and its isothermal oxidation. Journal of Materials Research, 2019, 34, 796-806.	1.2	67
15	Low temperature compressive creep in electrodeposited nanocrystalline nickel. Scripta Materialia, 2005, 53, 887-892.	2.6	65
16	On Joule heating during spark plasma sintering of metal powders. Scripta Materialia, 2014, 93, 52-55.	2.6	61
17	Friction deposition of titanium particle reinforced aluminum matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 653, 71-83.	2.6	59
18	Characterization of Oxide Dispersed AlCoCrFe High Entropy Alloy Synthesized by Mechanical Alloying and Spark Plasma Sintering. Transactions of the Indian Institute of Metals, 2013, 66, 369-373.	0.7	58

#	Article	IF	Citations
19	Grain growth kinetics in CoCrFeNi and CoCrFeMnNi high entropy alloys processed by spark plasma sintering. Journal of Alloys and Compounds, 2019, 791, 1114-1121.	2.8	57
20	High temperature deformation processing maps for boron modified Tiâ€“6Alâ€“4V alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6157-6165.	2.6	49
21	Phase evolution and thermal stability of AlCoCrFe high entropy alloy with carbon as unsolicited addition from milling media. Materials Chemistry and Physics, 2018, 210, 57-61.	2.0	41
22	The high temperature tensile and compressive deformation characteristics of magnesia doped alumina. Acta Materialia, 2000, 48, 3905-3915.	3.8	38
23	Effect of Molybdenum and Niobium on the Phase Formation and Hardness of Nanocrystalline CoCrFeNi High Entropy Alloys. Journal of Nanoscience and Nanotechnology, 2014, 14, 8106-8109.	0.9	35
24	Strengthening mechanisms in CrMoNbTiW refractory high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 819, 141503.	2.6	34
25	Microstructure and Mechanical Properties of Cu-Ag-Zr Alloy. Journal of Materials Engineering and Performance, 2013, 22, 3884-3889.	1.2	29
26	Evaluating the influence of microstructural attributes: Fraction, composition, size and spatial distribution of phases on the oxidation behaviour of high-entropy alloys. Corrosion Science, 2021, 184, 109381.	3.0	27
27	Phase evolution of refractory high-entropy alloy CrMoNbTiW during mechanical alloying and spark plasma sintering. Journal of Materials Research, 2019, 34, 756-766.	1.2	25
28	Friction stir selective alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 684, 186-190.	2.6	19
29	Nano- and micro-mechanical properties and corrosion performance of a HVOF sprayed AlCoCrFeNi high-entropy alloy coating. Journal of Alloys and Compounds, 2022, 912, 165000.	2.8	19
30	Grain Boundary Sliding during Diffusion and Dislocation Creep in a Mg-0.7ÂPct Al Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1743-1749.	1.1	18
31	Pressure controlled micro-viscous deformation assisted spark plasma sintering of Fe-based bulk amorphous alloy. Journal of Alloys and Compounds, 2018, 738, 10-15.	2.8	18
32	Influence of Two Different Salt Mixture Combinations of Na2SO4-NaCl-NaVO3 on Hot Corrosion Behavior of Ni-Base Superalloy Nimonic263 at 800ÂÂ°C. Journal of Materials Engineering and Performance, 2019, 28, 1077-1093.	1.2	17
33	Estimation of diffusivity from densification data obtained during spark plasma sintering. Scripta Materialia, 2019, 161, 36-39.	2.6	17
34	Composite of medium entropy alloys synthesized using spark plasma sintering. Scripta Materialia, 2021, 191, 46-51.	2.6	16
35	On correlation between densification kinetics during spark plasma sintering and compressive creep of B2 aluminides. Scripta Materialia, 2015, 107, 63-66.	2.6	15
36	Achieving exceptional creep resistance in rare-earth-free Mg-base alloys by engineering the shape, size and fraction of eutectic, particles and precipitates. Scripta Materialia, 2019, 162, 121-126.	2.6	15

#	Article	IF	Citations
37	An investigation of oxidation/hot corrosion-creep interaction at 800 Â°C in a Ni-base superalloy coated with salt mixture deposits of Na2SO4-NaCl-NaVO3. Corrosion Science, 2019, 147, 283-298.	3.0	15
38	Influence of processing route on the alloying behavior, microstructural evolution and thermal stability of CrMoNbTiW refractory high-entropy alloy. Journal of Materials Research, 2020, 35, 1556-1571.	1.2	13
39	Hot deformation behaviour of Mg-3Al-3Sn and Mg-3Al-3Sn-1â€¯Zn Alloys: Role of Zn. Materialia, 2018, 3, 274-287.	1.3	12
40	Hot corrosion-creep interaction in IN718 under simulated marine environment: Introducing strain-associated-time (SAT) plots for comprehensive understanding. Corrosion Science, 2021, 190, 109667.	3.0	11
41	Evolution of morphology and texture during high energy ball milling of Ni and Ni-5 wt%Cu powders. Materials Characterization, 2016, 120, 90-96.	1.9	10
42	High Strength and Good Ductility in Cu-3Ag-0.5Zr Alloy by Cryo-Rolling and Aging. Journal of Materials Engineering and Performance, 2017, 26, 350-357.	1.2	10
43	Heat-Affected Zone Liquation Cracking Resistance of Friction Stir Processed Aluminum-Copper Alloy AA 2219. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 1158-1173.	1.0	8
44	Use of Friction Stir Processing for Improving Heat-Affected Zone Liquation Cracking Resistance of a Cast Magnesium Alloy AZ91D. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 3270-3280.	1.0	8
45	Verification of correlation between densification during spark plasma sintering and compressive creep of ultrafine-grained in-situ Al2O3-reinforced B2 aluminide matrix composites. Journal of Alloys and Compounds, 2018, 735, 1921-1930.	2.8	8
46	Age-Hardening Characteristics of Cu-3Ag-0.5Zr Alloy. Materials Science Forum, 0, 710, 563-568.	0.3	7
47	Formation of amorphous alumina during sintering of nanocrystalline B2 aluminides. Materials Characterization, 2016, 119, 186-194.	1.9	7
48	Friction Buttering: A New Technique for Dissimilar Welding. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 1416-1422.	1.0	6
49	An innovative spraying setup to obtain uniform salt(s) mixture deposition to investigate hot corrosion. Review of Scientific Instruments, 2016, 87, 025107.	0.6	5
50	An investigation on diffusivity while achieving a cylindrical aluminide coating on metals using simultaneous spark plasma sintering of powders. Scripta Materialia, 2019, 170, 156-160.	2.6	5
51	On the role of Al and Zn addition on eutectic morphology in Mg-3Ca-2Sn cast alloy. Scripta Materialia, 2019, 162, 432-436.	2.6	5
52	A simple and versatile machine for creep testing at low loads (6â€“300 N) and on miniaturized specimens: Application to a Mg-base alloy. Review of Scientific Instruments, 2018, 89, 105102.	0.6	4
53	Synthesis and Characterization of Spark Plasma Sintered FeAl and In situ FeAlâ€“Al2O3 Composite. Transactions of the Indian Institute of Metals, 2013, 66, 419-424.	0.7	3
54	Use of Friction Buttering for Overcoming HAZ Liquation Cracking. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 2274-2280.	1.0	3

#	Article	IF	Citations
55	Theoretical and experimental studies on thermal stability of nanocrystalline Mgâ€“Mo alloy. Materialia, 2020, 14, 100933.	1.3	3
56	Distinct role of eutectic morphology on the plastic flow in cast Mgâ€“3Ca alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139633.	2.6	3
57	Synergetic influence of microconstituents on the damage accumulation and consequent effect on the flow behaviour in cast Mgâ€“Caâ€“Sn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140167.	2.6	3
58	Investigations into sample geometry effects on the superelastic and fatigue behavior of Nitinol: Modeling and experiments. Materialia, 2021, 20, 101256.	1.3	3
59	Is there Diffusion Creep in Alumina?. Key Engineering Materials, 2000, 171-174, 779-786.	0.4	2
60	Hot Working of an as-Cast Mg-2%Al Alloy. Materials Science Forum, 2003, 426-432, 4417-4422.	0.3	2
61	Effect of long-term exposure at 650ÂÂ°C on microstructural and creep characteristics of T92/Super304H dissimilar welds. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 467-481.	1.3	2
62	Understanding the Hot Working Behavior of a Ni-Base Superalloy XH 67 via Processing Map Approach. Materials Performance and Characterization, 2020, 9, 224-236.	0.2	2
63	Unusual substructure evolution and post-dynamic recrystallization effects on flow softening mechanism in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si13.svg"><mml:msup><mml:mi>Î³</mml:mi><mml:mo>â€²</mml:mo></mml:msup></mml:math>-free Co-base superalloy. Materialia, 2022, 24, 101467.	1.3	2
64	An experimental technique for fabricating tensile ceramic specimens. Scripta Materialia, 1999, 41, 1091-1095.	2.6	1
65	High Temperature Deformation Behaviour of a Mg-0.8Al Alloy. Materials Science Forum, 2004, 447-448, 227-232.	0.3	1
66	An Investigation on Diffusivity While Achieving a Cylindrical Aluminide Coating on Metals Using Simultaneous Spark Plasma Sintering of Powders. SSRN Electronic Journal, 0, , .	0.4	0
67	Exploring the Safe Hot Working Regime of Creep-Resistant Mg-3Ca-2Sn-1Al Alloy. Materials Performance and Characterization, 2020, 9, 215-223.	0.2	0
68	On the Solid Solution Strengthening in Crmonbtiw Refractory High Entropy Alloy. SSRN Electronic Journal, 0, , .	0.4	0
69	Composite of Medium Entropy Alloys Synthesized Using Spark Plasma Sintering. SSRN Electronic Journal, 0, , .	0.4	0