

Divakar Ramachandran

List of Publications by Year in descending order

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89
papers

2,284
citations

394286

19
h-index

223716

46
g-index

90
all docs

90
docs citations

90
times ranked

3185
citing authors

#	ARTICLE	IF	CITATIONS
1	Irradiation behaviour of alloy D9 clad and wrapper in FBTR. Journal of Nuclear Materials, 2022, 565, 153711.	1.3	2
2	Molecular dynamics studies on formation of stacking fault tetrahedra in FCC metals. Computational Materials Science, 2021, 186, 110017.	1.4	10
3	Phase Formation and Microstructural Evaluation in V-Ti-Cr System Using Advanced Microscopy Analysis. Microscopy and Microanalysis, 2019, 25, 2280-2281.	0.2	0
4	Evidence for spinodal decomposition in Ti-15Mo quenched alloy using transmission electron microscopy. Micron, 2019, 121, 43-52.	1.1	7
5	Synthesis, microstructure and corrosion behavior of compositionally graded Ni-YSZ diffusion barrier coatings on inconel-690 for applications in high temperature environments. Corrosion Science, 2018, 135, 243-254.	3.0	17
6	Evaluation of Fuel-Clad Chemical Interaction in PFBR MOX test fuel pins. Journal of Nuclear Materials, 2018, 509, 94-101.	1.3	3
7	Direct structure imaging of partially collapsed omega domains in phase-separated V-Ti alloy through atom column contrast interpretation. Journal of Materials Science, 2018, 53, 13186-13202.	1.7	4
8	Low-cost hydrothermal synthesis and characterization of pentanary Cu ₂ Zn _x Ni _{1-x} SnS ₄ nanoparticle inks for thin film solar cell applications. Materials Science in Semiconductor Processing, 2017, 63, 127-136.	1.9	20
9	Microstructural and microchemical studies of phase stability in V-O solid solution. Materials Characterization, 2017, 124, 129-135.	1.9	4
10	Transmission electron microscopy studies and modeling of 3D reciprocal space of β' forming alloy. Micron, 2017, 102, 73-87.	1.1	7
11	Freeze drying vs microwave drying—methods for synthesis of sinteractive thoria powders. Journal of Nuclear Materials, 2017, 484, 51-58.	1.3	9
12	Phase separation and β' transformation in binary V-Ti and ternary V-Ti-Cr alloys. Acta Materialia, 2016, 121, 310-324.	3.8	23
13	Microstructural characterization of transformation products of bcc β' in Ti-15 Mo alloy. Journal of Alloys and Compounds, 2016, 658, 301-315.	2.8	21
14	Comparative Study of Fe-Doped ZnO Nanowire Bundle and Their Thin Film for NO ₂ and CH ₄ Gas Sensing. Macromolecular Symposia, 2015, 357, 99-104.	0.4	4
15	Alloy design and microstructural evolution in V-Ti-Cr alloys. Materials Characterization, 2015, 106, 292-301.	1.9	17
16	Influence of CeO ₂ layer thickness on the properties of CeO ₂ /Gd ₂ O ₃ multilayers prepared by pulsed laser deposition. Vacuum, 2015, 113, 64-74.	1.6	3
17	Effect of substrate heating and microwave attenuation on the catalyst free growth and field emission of carbon nanotubes. Carbon, 2015, 94, 256-265.	5.4	27
18	Thermal stability and thermal expansion behaviour of ZrO ₂ /Y ₂ O ₃ multilayers deposited by pulsed laser deposition technique. Materials Chemistry and Physics, 2015, 162, 592-607.	2.0	9

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19	In-situ electron microscopy investigation of reduction-induced microstructural changes in NiO. <i>Ceramics International</i> , 2015, 41, 12658-12667.	2.3	5
20	Structure imaging and vanadium substitution in cubic TiCr_2 Laves phase. <i>Philosophical Magazine</i> , 2015, 95, 2403-2426.	0.7	9
21	Dimensional measurements on 112GWD/t irradiated MOX fuel pins using X-ray radiography. <i>Annals of Nuclear Energy</i> , 2015, 83, 8-13.	0.9	4
22	HRTEM investigation of phase stability in alumina-zirconia multilayer thin films. <i>Bulletin of Materials Science</i> , 2015, 38, 401-407.	0.8	2
23	Probing luminescent Fe-doped ZnO nanowires for high-performance oxygen gas sensing application. <i>RSC Advances</i> , 2014, 4, 54953-54959.	1.7	10
24	Irradiation performance of PFBR MOX fuel after 112GWD/t burn-up. <i>Journal of Nuclear Materials</i> , 2014, 449, 31-38.	1.3	14
25	X-ray diffraction, Raman and photoluminescence studies of nanocrystalline cerium oxide thin films. <i>Ceramics International</i> , 2013, 39, 8327-8333.	2.3	59
26	Synthesis and Structural Characterization of $\text{V}_{40}\text{Ti}_{40}\text{Cr}$ Alloy. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 381-385.	0.7	7
27	Influence of nitrogen flow rate on microstructural and nanomechanical properties of Zr_N thin films prepared by pulsed DC magnetron sputtering. <i>Applied Surface Science</i> , 2013, 280, 117-123.	3.1	62
28	Structural characterization of electrodeposited boron. <i>Bulletin of Materials Science</i> , 2013, 36, 1323-1329.	0.8	10
29	Electroextraction of boron from boron carbide scrap. <i>Materials Characterization</i> , 2013, 84, 134-141.	1.9	4
30	Synthesis and sintering of nanocrystalline thoria doped with CaO and MgO derived through oxalate-deagglomeration. <i>Journal of Nuclear Materials</i> , 2013, 434, 223-229.	1.3	19
31	Microstructural, nanomechanical and antibacterial properties of magnetron sputtered nanocomposite thin films of CrN/Cu . <i>Surface Engineering</i> , 2012, 28, 134-140.	1.1	16
32	Synthesis of novel Ru_2C under high pressure-high temperature conditions. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 362202.	0.7	20
33	A unified approach to phase and microstructural stability for Fe-ETM alloys through Miedema's model. <i>Intermetallics</i> , 2012, 23, 148-157.	1.8	22
34	Characterization of $\text{Al}_2\text{O}_3/\text{ZrO}_2$ nano multilayer thin films prepared by pulsed laser deposition. <i>Materials Chemistry and Physics</i> , 2012, 133, 299-303.	2.0	10
35	Blue green and UV emitting ZnO nanoparticles synthesized through a non-aqueous route. <i>Optical Materials</i> , 2012, 34, 1241-1245.	1.7	32
36	Electron Microscopy Studies on Oxide Dispersion Strengthened Steels. , 2012, , 117-128.		8

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37	Synthesis and high temperature XRD studies of tantalum nitride thin films prepared by reactive pulsed dc magnetron sputtering. Journal of Alloys and Compounds, 2011, 509, 6400-6407.	2.8	33
38	Synthesis and characterization of SnS nanosheets through simple chemical route. Materials Letters, 2011, 65, 1148-1150.	1.3	35
39	Development and characterization of advanced 9Cr ferritic/martensitic steels for fission and fusion reactors. Journal of Nuclear Materials, 2011, 409, 131-139.	1.3	78
40	Thermal stability of CeO ₂ /ZrO ₂ multilayer thin films prepared by pulsed laser deposition. Transactions of the Indian Institute of Metals, 2011, 64, 297-299.	0.7	2
41	Low-temperature and ambient-pressure synthesis and shape evolution of nanocrystalline pure, La-doped and Gd-doped CeO ₂ . Applied Surface Science, 2010, 256, 3772-3777.	3.1	16
42	Nanopatterning by solid-state dewetting on reconstructed ceramic surfaces. Applied Physics Letters, 2009, 94, .	1.5	33
43	Development of cladding materials for sodium-cooled fast reactors in India. Transactions of the Indian Institute of Metals, 2009, 62, 89-94.	0.7	10
44	High temperature XRD of zirconia/alumina multilayer thin films prepared by pulsed laser deposition. Proceedings of SPIE, 2009, , .	0.8	0
45	Microstructural Studies of Nanocomposite Thin Films of Ni/CrN Prepared by Reactive Magnetron Sputtering. Journal of Nanoscience and Nanotechnology, 2009, 9, 5592-5595.	0.9	1
46	Structure and growth mechanism of ZnSe nanowires. Journal of Applied Physics, 2008, 104, .	1.1	23
47	Eu ³⁺ -doped gadolinium oxysulfide (Gd ₂ O ₂ S) nanostructures—synthesis and optical and electronic properties. Nanotechnology, 2008, 19, 395703.	1.3	49
48	Modified electron-beam-induced deposition of metal nanostructure arrays using a parallel electron beam. Applied Physics Letters, 2008, 93, 133104.	1.5	9
49	In situ Microscopy: A Tool to Understand Mechanisms. Microscopy and Microanalysis, 2008, 14, 246-247.	0.2	2
50	Complementary Microscopy Techniques for Characterizing Nanostructures. Microscopy and Microanalysis, 2008, 14, 374-375.	0.2	1
51	TEM Characterization of ZnO Nanorods. Springer Proceedings in Physics, 2008, , 237-240.	0.1	1
52	Hydrothermal Synthesis of Cuboidal Nanocrystalline Ceria. Microscopy and Microanalysis, 2007, 13, .	0.2	0
53	TEM Characterization of CdSe Quantum Dot Sensitized ZnO Nanowires. Microscopy and Microanalysis, 2007, 13, .	0.2	0
54	Synthesis, crystal structure, dielectric properties, and potential use of nanocrystalline complex perovskite ceramic oxide Ba ₂ ErZrO _{5.5} . Materials Research Bulletin, 2007, 42, 1976-1985.	2.7	9

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55	Photosensitization of ZnO Nanowires with CdSe Quantum Dots for Photovoltaic Devices. Nano Letters, 2007, 7, 1793-1798.	4.5	935
56	High Temperature Heat Capacity of Alloy D9 Using Drop Calorimetry Based Enthalpy Increment Measurements. International Journal of Thermophysics, 2007, 28, 97-108.	1.0	18
57	Microstructural study of thin films of 5Åmol% gadolinia doped ceria prepared by pulsed laser ablation. Ionics, 2007, 12, 365-370.	1.2	1
58	Microstructural study of thin films of 5 mol% gadolinia-doped ceria prepared by pulsed laser ablation. Ionics, 2007, 13, 87-92.	1.2	2
59	Nano-ionic thin films of gadolinia-doped ceria prepared by pulsed laser ablation. Ionics, 2007, 13, 343-348.	1.2	7
60	Growth of ZnO Nanorods: A TEM Study. Microscopy and Microanalysis, 2006, 12, 698-699.	0.2	4
61	A study on the thermal expansion characteristics of a dissimilar fusion joint by high temperature X-ray diffraction. Materials Letters, 2006, 60, 1527-1532.	1.3	0
62	Inversion Domain Boundaries in Wurtzite GaN. Microscopy and Microanalysis, 2006, 12, 1084-1085.	0.2	0
63	Thermal property characterization of a titanium modified austenitic stainless steel (alloy D9). Journal of Nuclear Materials, 2005, 347, 20-30.	1.3	18
64	Enthalpy measurements on a titanium modified austenitic stainless steel. Materials Letters, 2005, 59, 1219-1222.	1.3	4
65	Thermal expansion studies on Inconel-600Å® by high temperature X-ray diffraction. Journal of Nuclear Materials, 2004, 325, 18-25.	1.3	38
66	A study on the thermal expansion characteristics of Inconel-82Å® filler wire by high temperature X-ray diffraction. Materials Letters, 2004, 58, 216-221.	1.3	7
67	Characterisation of interfaces in nanocrystalline palladium. Sadhana - Academy Proceedings in Engineering Sciences, 2003, 28, 47-62.	0.8	14
68	Thermal expansion characteristics of a titanium modified austenitic stainless steel: measurement by high-temperature X-ray diffraction and modelling using GrÅ¼neisen formalism. Journal of Nuclear Materials, 2003, 317, 54-61.	1.3	16
69	Synthesis of Nanoparticles of Barium Lanthanum Hafnium Oxide by a Modified Combustion Process. Journal of Nanoscience and Nanotechnology, 2002, 2, 107-111.	0.9	8
70	Nano-quasicrystalline phase formation in MgÅ“CdÅ“Yb alloys. Journal of Alloys and Compounds, 2002, 342, 261-264.	2.8	11
71	Barium Holmium Zirconate, A New Perovskite Oxide: II, Synthesis as Nanoparticles through a Modified Combustion Process. Journal of the American Ceramic Society, 2002, 85, 2395-2398.	1.9	4
72	Synthesis and characterization of nanoparticles of Ba ₂ EuHfO _{5.5} : a new complex perovskite ceramic oxide. Materials Letters, 2001, 51, 275-280.	1.3	3

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73	Interface structures in nanocrystalline materials. Scripta Materialia, 2001, 44, 1169-1174.	2.6	59
74	Synthesis and characterization of nanoparticles of Ba ₂ EuZrO _{5.5} : A new complex perovskite ceramic oxide. Journal of Materials Research, 2000, 15, 2125-2130.	1.2	10
75	Synthesis of Nanosized Ba ₂ LaZrO _{5.5} Ceramic Powders through a Novel Combustion Route. Journal of Materials Synthesis and Processing, 2000, 8, 1-5.	0.3	6
76	A new combustion process for nanosized YBa ₂ ZrO _{5.5} powders. Scripta Materialia, 1999, 11, 623-629.	0.5	21
77	Microwave synthesis of solid solutions of urania and thoria – a comparative study. Journal of Nuclear Materials, 1998, 254, 55-64.	1.3	17
78	Interfaces In Quasicrystalline Systems. Materials Research Society Symposia Proceedings, 1998, 553, 209.	0.1	0
79	Heterogeneous Nucleation of the Amorphous Phase and Dissolution of Nanocrystalline Grains in Bilayer Al-Ge Thin Films. Scripta Materialia, 1997, 38, 59-65.	2.6	3
80	Studies of interfaces in Al ₆₅ Cu ₂₀ Fe ₁₅ . Bulletin of Materials Science, 1997, 20, 519-523.	0.8	2
81	Al-Cu-Fe quasicrystals: Stability and microstructure. Progress in Crystal Growth and Characterization of Materials, 1997, 34, 263-269.	1.8	10
82	PVA aided microwave synthesis: A novel route for the production of nanocrystalline thoria powder. Journal of Nuclear Materials, 1996, 231, 213-220.	1.3	38
83	Reply to comments on “Microstructural features of a type 304L stainless steel deformed at 1473 K in the strain rate interval 10 ⁻³ s ⁻¹ to 10 ² s ⁻¹ ”. Scripta Metallurgica Et Materialia, 1994, 30, 1617-1622.	1.0	7
84	Microstructural features of a type 304L stainless steel deformed at 1473 K in the strain rate interval 10 ⁻³ s ⁻¹ to 10 ² s ⁻¹ . Scripta Metallurgica Et Materialia, 1993, 28, 1077-1082.	1.0	15
85	Microstructural Changes Associated with Annealing of Melt Spun Al ₆₅ Cu ₂₀ Fe ₁₅ . Materials Transactions, JIM, 1992, 33, 23-28.	0.9	4
86	Deformation substructures associated with very large plastic strains. Scripta Metallurgica Et Materialia, 1992, 27, 975-980.	1.0	42
87	Crystalline Phases Relating to Stable Al–Cu–Fe Quasicrystal. Materials Transactions, JIM, 1990, 31, 1033-1040.	0.9	4
88	Low energy dislocation structures caused by sliding and by particle impact. Materials Science and Engineering, 1986, 81, 409-425.	0.1	152
89	The effect of orientation and pore size on nano mechanical behaviour of Ag thin films: a comparison between experiment and atomistic simulation. Philosophical Magazine, 0, , 1-44.	0.7	0