

Richard P Vinci

List of Publications by Year in descending order

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55
papers

1,162
citations

430442

18
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395343

33
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docs citations

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times ranked

1088
citing authors

#	ARTICLE	IF	CITATIONS
1	Metalorganic Vapor Phase Epitaxy of III-Nitride Light-Emitting Diodes on Nanopatterned AGOG Sapphire Substrate by Abbreviated Growth Mode. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2009, 15, 1066-1072.	1.9	157
2	Imaging and mechanical property measurements of kerogen via nanoindentation. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 4113-4119.	1.6	114
3	Abbreviated MOVPE nucleation of III-nitride light-emitting diodes on nano-patterned sapphire. <i>Journal of Crystal Growth</i> , 2010, 312, 1311-1315.	0.7	106
4	Microstructural evolution in lead-free solder alloys: Part I. Cast Sn-Ag-Cu eutectic. <i>Journal of Materials Research</i> , 2004, 19, 1417-1424.	1.2	85
5	Microstructural evolution in lead-free solder alloys: Part II. Directionally solidified Sn-Ag-Cu, Sn-Cu and Sn-Ag. <i>Journal of Materials Research</i> , 2004, 19, 1425-1431.	1.2	57
6	Study of the effect of grain boundary migration on hillock formation in Al thin films. <i>Journal of Applied Physics</i> , 2001, 90, 781-788.	1.1	49
7	Thermal stability of Cu nanowires on a sapphire substrate. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	36
8	Mechanical behavior of Pt and Pt-Ru solid solution alloy thin films. <i>Acta Materialia</i> , 2004, 52, 4199-4211.	3.8	34
9	Microstructure and fracture toughness of electrodeposited Ni-21% W alloy thick films. <i>Acta Materialia</i> , 2018, 143, 272-280.	3.8	34
10	Temperature-Dependent Viscoelasticity in Thin Au Films and Consequences for MEMS Devices. <i>Journal of Microelectromechanical Systems</i> , 2010, 19, 1299-1308.	1.7	33
11	Complexion time-temperature-transformation (TTT) diagrams: Opportunities and challenges. <i>Current Opinion in Solid State and Materials Science</i> , 2016, 20, 316-323.	5.6	31
12	Patterning of sapphire substrates via a solid state conversion process. <i>Journal of Materials Research</i> , 2005, 20, 417-423.	1.2	25
13	Temperature-dependent microtensile testing of thin film materials for application to microelectromechanical system. <i>Microsystem Technologies</i> , 2006, 12, 1045-1051.	1.2	25
14	The Effect of Aging on the Microstructure of Selective Laser Melted Cu-Ni-Si. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 6070-6082.	1.1	25
15	Dislocation structure of GaN films grown on planar and nano-patterned sapphire. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	23
16	Correlations between microstructure, fracture morphology, and fracture toughness of nanocrystalline Ni-W alloys. <i>Scripta Materialia</i> , 2016, 113, 84-88.	2.6	23
17	Novel room-temperature first-level packaging process for microscale devices. <i>Sensors and Actuators A: Physical</i> , 2005, 123-124, 646-654.	2.0	21
18	Driving forces for texture transformation in thin Ag films. <i>Acta Materialia</i> , 2016, 105, 495-504.	3.8	20

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19	Mechanical Properties in Small Dimensions. MRS Bulletin, 2002, 27, 12-17.	1.7	18
20	Viscoelastic mechanical properties measurement of thin Al and Al-Mg films using bulge testing. Thin Solid Films, 2016, 618, 2-7.	0.8	18
21	A chevron-notched bowtie micro-beam bend test for fracture toughness measurement of brittle materials. Scripta Materialia, 2017, 132, 53-57.	2.6	17
22	Surface energies, segregation, and fracture behavior of magnesium aluminate spinel low-index grain boundary planes. Acta Materialia, 2018, 148, 320-329.	3.8	17
23	Linear viscoelasticity in aluminum thin films. Applied Physics Letters, 2005, 87, 061902.	1.5	16
24	The electrical and mechanical properties of Au-V and Au-V ₂ O ₅ thin films for wear-resistant RF MEMS switches. Journal of Applied Physics, 2008, 103, 083522.	1.1	16
25	Effect of Interface Conditions on Yield Behavior of Passivated Copper Thin Films. Journal of Materials Research, 2002, 17, 1863-1870.	1.2	15
26	Non-Destructive Evaluation of Strains and Voiding in Passivated Copper Metallizations. Materials Research Society Symposia Proceedings, 1993, 308, 297.	0.1	13
27	Templated epitaxial coatings on magnesium aluminate spinel using the sol-gel method. Journal of Materials Science, 2009, 44, 1180-1186.	1.7	12
28	Stress in Copper Thin Films with Barrier Layers. Materials Research Society Symposia Proceedings, 1993, 308, 337.	0.1	10
29	The influence of vanadium alloying on the elevated-temperature mechanical properties of thin gold films. Thin Solid Films, 2007, 515, 7919-7925.	0.8	10
30	Solid State Annealing Behavior of Aluminum Thin Films on Sapphire. Journal of the American Ceramic Society, 2012, 95, 823-830.	1.9	10
31	Sub-Surface Oxidation at the Aluminum/Sapphire Interface During Low-Temperature Annealing. Journal of the American Ceramic Society, 2007, 90, 2571-2575.	1.9	8
32	Design of a bidirectional MEMS actuator with high displacement resolution, large driving force and power-free latching. Microelectronic Engineering, 2008, 85, 587-598.	1.1	8
33	Sol-Gel-Derived Single-Crystal Alumina Coatings with Vermicular Structure. Journal of the American Ceramic Society, 2011, 94, 340-343.	1.9	8
34	The effect of grain size on viscoelastic relaxation behavior of Au thin films. Scripta Materialia, 2018, 155, 1-4.	2.6	8
35	The influence of grain boundary area on the complexion time-temperature-transformation diagram of Eu-doped magnesium aluminate spinel. Scripta Materialia, 2020, 178, 251-255.	2.6	8
36	Precision in-package positioning with a thermal inchworm. Sensors and Actuators A: Physical, 2008, 142, 316-321.	2.0	7

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37	Single crystal growth of CoTi ₂ O ₅ by solid state reaction synthesis. Journal of the American Ceramic Society, 2019, 102, 5050-5062.	1.9	7
38	Stress in Copper thin Films With Barrier Layers. Materials Research Society Symposia Proceedings, 1993, 309, 269.	0.1	6
39	Novel metal-ceramic composite microstructures produced through the partial reduction of CoTiO ₃ . Journal of Materials Science, 2018, 53, 8193-8210.	1.7	5
40	Stress relaxation in nanoscale aluminum films. , 2004, 5343, 154.		4
41	In-Situ Observations of Shear Band Development during Deformation of a Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2000, 644, 1021.	0.1	3
42	Metal Adhesion to Si Substrates with Varying Surface Conditions. Materials Research Society Symposia Proceedings, 2001, 695, 1.	0.1	3
43	Monotonic Testing and Tension-Tension Fatigue Testing of Free-standing Al Microtensile Beams. Materials Research Society Symposia Proceedings, 2003, 795, 170.	0.1	3
44	Aberration-Corrected Scanning Transmission Electron Microscope (STEM) Through-Focus Imaging for Three-Dimensional Atomic Analysis of Bismuth Segregation on Copper [001]/33Å° Twist Bicrystal Grain Boundaries. Microscopy and Microanalysis, 2016, 22, 679-689.	0.2	3
45	Solid Solution Alloy Effects on Microstructure and Indentation Hardness in Pt-Ru Thin Films. Materials Research Society Symposia Proceedings, 2001, 673, 1.	0.1	2
46	Mechanical Properties in Small Dimensions: Comments from Industry. MRS Bulletin, 2002, 27, 52-53.	1.7	2
47	Fabrication of Pt-IrO _x and Au-V ₂ O ₅ Thin Films. Key Engineering Materials, 2007, 345-346, 735-740.	0.4	2
48	Effect of Intermetallics on Pt-Al Surface Coatings Colour. Defect and Diffusion Forum, 2014, 353, 259-262.	0.4	2
49	Non-Destructive Evaluation of Strains and Voiding in Passivated copper Metallizations. Materials Research Society Symposia Proceedings, 1993, 309, 229.	0.1	1
50	Improved Photoluminescence of InGaN Quantum Wells Grown on Nano-Patterned AGOG Sapphire Substrate by Metalorganic Vapor Phase Epitaxy. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
51	Statistically-substantiated density characterizations of additively manufactured steel alloys through verification, validation, and uncertainty quantification. , 2017, , .		1
52	Internal Oxidation and Mechanical Properties of Pt-IrO ₂ Thin Films. Materials Research Society Symposia Proceedings, 2003, 795, 445.	0.1	0
53	Fabrication and Morphological Stability of Aluminium Nanostructures En Route to Nanopatterned Sapphire. Advances in Science and Technology, 2006, 45, 945.	0.2	0
54	Abbreviated GaN metalorganic vapor phase epitaxy growth mode on nano-patterned sapphire for enhanced efficiency of InGaN-based light-emitting diodes. , 2010, , .		0

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55	Growths of InGaN Quantum Wells Light-Emitting Diodes on Nano-Patterned AGOG Sapphire Substrate Using Abbreviated Growth Mode. , 2009, , .		0