

Theodorian Borca-Tasciuc

List of Publications by Year in descending order

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88
papers

4,847
citations

126708

33
h-index

91712

69
g-index

89
all docs

89
docs citations

89
times ranked

6499
citing authors

#	ARTICLE	IF	CITATIONS
1	A new class of doped nanobulk high-figure-of-merit thermoelectrics by scalable bottom-up assembly. Nature Materials, 2012, 11, 233-240.	13.3	462
2	Data reduction in 3I% method for thin-film thermal conductivity determination. Review of Scientific Instruments, 2001, 72, 2139-2147.	0.6	412
3	Large-Area Freestanding Graphene Paper for Superior Thermal Management. Advanced Materials, 2014, 26, 4521-4526.	11.1	386
4	Enhanced Thermal Conductivity in a Nanostructured Phase Change Composite due to Low Concentration Graphene Additives. Journal of Physical Chemistry C, 2011, 115, 8753-8758.	1.5	377
5	Tunable Bandgap in Graphene by the Controlled Adsorption of Water Molecules. Small, 2010, 6, 2535-2538.	5.2	279
6	Thermal conductivity of symmetrically strained Si/Ge superlattices. Superlattices and Microstructures, 2000, 28, 199-206.	1.4	235
7	Effect of nanoparticles on sessile droplet contact angle. Nanotechnology, 2006, 17, 2523-2527.	1.3	165
8	The effect of nanoparticles on the liquid-gas surface tension of Bi ₂ Te ₃ nanofluids. Nanotechnology, 2009, 20, 185702.	1.3	154
9	A novel approach to enhance the thermal conductivity of epoxy nanocomposites using graphene core-shell additives. Carbon, 2016, 101, 239-244.	5.4	128
10	High thermal conductivity epoxy-silver composites based on self-constructed nanostructured metallic networks. Journal of Applied Physics, 2012, 111, .	1.1	108
11	Strain and size effects on heat transport in nanostructures. Journal of Applied Physics, 2003, 93, 3535-3539.	1.1	107
12	Low-Temperature, Template-Free Synthesis of Single-Crystal Bismuth Telluride Nanorods. Advanced Materials, 2006, 18, 496-500.	11.1	103
13	A Review on Principles and Applications of Scanning Thermal Microscopy (SThM). Advanced Functional Materials, 2020, 30, 1900892.	7.8	98
14	Molecularly Protected Bismuth Telluride Nanoparticles: Microemulsion Synthesis and Thermoelectric Transport Properties. Advanced Materials, 2006, 18, 2958-2963.	11.1	85
15	Nanotube-assisted protein deactivation. Nature Nanotechnology, 2008, 3, 41-45.	15.6	80
16	Seebeck and Figure of Merit Enhancement in Nanostructured Antimony Telluride by Antisite Defect Suppression through Sulfur Doping. Nano Letters, 2012, 12, 4523-4529.	4.5	80
17	Phonon engineering in nanostructures for solid-state energy conversion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 292, 155-161.	2.6	71
18	Surfactant-Directed Synthesis of Branched Bismuth Telluride/Sulfide Core/Shell Nanorods. Advanced Materials, 2008, 20, 2679-2683.	11.1	69

#	ARTICLE	IF	CITATIONS
19	Atmospheric Water Harvesting by Large-Scale Radiative Cooling Cellulose-Based Fabric. <i>Nano Letters</i> , 2022, 22, 2618-2626.	4.5	68
20	Anisotropic Thermal Conductivity of Ge Quantum-Dot and Symmetrically Strained Si/Ge Superlattices. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 39-42.	0.9	65
21	Role of nanoparticles on nanofluid boiling phenomenon: Nanoparticle deposition. <i>Chemical Engineering Research and Design</i> , 2014, 92, 842-856.	2.7	65
22	Decrease in thermal conductivity in polymeric P3HT nanowires by size-reduction induced by crystal orientation: new approaches towards thermal transport engineering of organic materials. <i>Nanoscale</i> , 2014, 6, 7858-7865.	2.8	63
23	Nanofluid Surface Wettability Through Asymptotic Contact Angle. <i>Langmuir</i> , 2011, 27, 2211-2218.	1.6	61
24	Anisotropic Thermal Diffusivity Characterization of Aligned Carbon Nanotube-Polymer Composites. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 1581-1588.	0.9	57
25	Thermal conductivity of AlAs _{0.07} Sb _{0.93} and Al _{0.9} Ga _{0.1} As _{0.07} Sb _{0.93} alloys and (AlAs) ₁ (AlSb) ₁₁ digital-alloy superlattices. <i>Journal of Applied Physics</i> , 2002, 92, 4994-4998.	1.1	56
26	A microprobe technique for simultaneously measuring thermal conductivity and Seebeck coefficient of thin films. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	55
27	Thermal conductivity measurements of high and low thermal conductivity films using a scanning hot probe method in the 3D mode and novel calibration strategies. <i>Nanoscale</i> , 2015, 7, 15404-15412.	2.8	50
28	Time and temperature dependence of multi-walled carbon nanotube growth on Inconel 600. <i>Nanotechnology</i> , 2008, 19, 045610.	1.3	47
29	Thermal conductivity of skutterudite thin films and superlattices. <i>Applied Physics Letters</i> , 2000, 77, 3854-3856.	1.5	46
30	Thermal resistance of the native interface between vertically aligned multiwalled carbon nanotube arrays and their SiO ₂ /Si substrate. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	45
31	Harnessing Topological Band Effects in Bismuth Telluride Selenide for Large Enhancements in Thermoelectric Properties through Isovalent Doping. <i>Advanced Materials</i> , 2016, 28, 6436-6441.	11.1	44
32	Effects of graphene concentration, relative density and cellular morphology on the thermal conductivity of polycarbonate-graphene nanocomposite foams. <i>European Polymer Journal</i> , 2016, 75, 190-199.	2.6	36
33	Self-constructed tree-shape high thermal conductivity nanosilver networks in epoxy. <i>Nanoscale</i> , 2014, 6, 4292-4296.	2.8	35
34	Multifold Increases in Thermal Conductivity of Polymer Nanocomposites through Microwave Welding of Metal Nanowire Fillers. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500186.	1.9	33
35	SCANNING PROBE METHODS FOR THERMAL AND THERMOELECTRIC PROPERTY MEASUREMENTS. <i>Annual Review of Heat Transfer</i> , 2013, 16, 211-258.	0.3	33
36	A noncontact thermal microprobe for local thermal conductivity measurement. <i>Review of Scientific Instruments</i> , 2011, 82, 024902.	0.6	32

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37	Lattice thermal conductivity diminution and high thermoelectric power factor retention in nanoporous macroassemblies of sulfur-doped bismuth telluride nanocrystals. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	32
38	Microwave synthesis of branched silver nanowires and their use as fillers for high thermal conductivity polymer composites. <i>Nanotechnology</i> , 2016, 27, 175601.	1.3	32
39	Sequential Organic~Inorganic Templating and Thermoelectric Properties of High-Aspect-Ratio Single-Crystal Lead Telluride Nanorods. <i>Chemistry of Materials</i> , 2008, 20, 4791-4793.	3.2	30
40	Theoretical and experimental investigation of quasi-steady-state bubble growth on top of submerged stainless steel nozzles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 369, 11-19.	2.3	30
41	Enhancement of thermoelectric efficiency of doped PCDTBT polymer films. <i>RSC Advances</i> , 2015, 5, 66687-66694.	1.7	27
42	Thermal and electrical transport along MWCNT arrays grown on Inconel substrates. <i>Journal of Materials Research</i> , 2008, 23, 2099-2105.	1.2	25
43	Thin-Film Thermophysical Property Characterization by Scanning Laser Thermoelectric Microscope. <i>International Journal of Thermophysics</i> , 1998, 19, 557-567.	1.0	23
44	Pressure-induced insulator-to-metal transitions for enhancing thermoelectric power factor in bismuth telluride-based alloys. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 12784-12793.	1.3	23
45	Quantifying non-contact tip-sample thermal exchange parameters for accurate scanning thermal microscopy with heated microprobes. <i>Review of Scientific Instruments</i> , 2017, 88, 074903.	0.6	22
46	Electrowetting on dielectric-actuation of microdroplets of aqueous bismuth telluride nanoparticle suspensions. <i>Nanotechnology</i> , 2007, 18, 475711.	1.3	21
47	Tailoring Electrical Transport Across Metal~Thermoelectric Interfaces Using a Nanomolecular Monolayer. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 4275-4279.	4.0	19
48	Synthesis and Thermoelectric Properties of Thin Film Assemblies of Bismuth Telluride Nanopolyhedra. <i>Chemistry of Materials</i> , 2011, 23, 3029-3031.	3.2	18
49	Thermal conductivity measurements of thin films by non-contact scanning thermal microscopy under ambient conditions. <i>Nanoscale Advances</i> , 2021, 3, 692-702.	2.2	17
50	Liquid~gas surface tension voltage dependence during electrowetting on dielectric testing of water and 5~90 nm gold nanofluids. <i>Journal of Colloid and Interface Science</i> , 2017, 490, 797-801.	5.0	16
51	Temperature dependent thermal conductivity of Si/SiC amorphous multilayer films. <i>Applied Physics Letters</i> , 2010, 96, 093103.	1.5	13
52	Threshold conductivity switching in sulfurized antimony selenide nanowires. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	13
53	Multifold Electrical Conductance Enhancements at Metal~Bismuth Telluride Interfaces Modified Using an Organosilane Monolayer. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 2001-2005.	4.0	13
54	Temperature measurement of fine wires by photothermal radiometry. <i>Review of Scientific Instruments</i> , 1997, 68, 4080-4083.	0.6	12

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55	Investigation of nanofluid bubble characteristics under non-equilibrium conditions. Chemical Engineering and Processing: Process Intensification, 2014, 86, 116-124.	1.8	12
56	Importance of Cr ₂ O ₃ layer for growth of carbon nanotubes on superalloys. Carbon, 2010, 48, 844-853.	5.4	11
57	Reduced stability of copper interconnects due to wrinkles and steps on hexagonal boron nitride substrates. Applied Physics Letters, 2014, 105, 123108.	1.5	11
58	Divalent doping-induced thermoelectric power factor increase in p-type Bi ₂ Te ₃ via electronic structure tuning. Journal of Applied Physics, 2019, 125, .	1.1	11
59	Quantitative temperature distribution measurements by non-contact scanning thermal microscopy using Wollaston probes under ambient conditions. Review of Scientific Instruments, 2020, 91, 014901.	0.6	11
60	A steady-state hot-wire method for thermal conductivity measurements of fluids. International Journal of Heat and Mass Transfer, 2019, 134, 993-1002.	2.5	10
61	Photon effect on radiative properties of silicon during rapid thermal processing. Journal of Applied Physics, 1997, 82, 830-835.	1.1	9
62	Experimental study of a surfactant-assisted SiGe graded layer and a symmetrically strained Si/Ge superlattice for thermoelectric applications. Thin Solid Films, 2000, 369, 121-125.	0.8	9
63	Annealing Effects on Mechanical and Transport Properties of Ni and Ni-Alloy Electrodeposits. Journal of Microelectromechanical Systems, 2006, 15, 1051-1059.	1.7	9
64	Thermal conductivity of Er ³⁺ :Y ₂ O ₃ films grown by atomic layer deposition. Applied Physics Letters, 2013, 103, 193109.	1.5	8
65	Applicability of photothermal radiometry for temperature measurement of semiconductors. International Journal of Heat and Mass Transfer, 1998, 41, 2279-2285.	2.5	7
66	The role of microstructure in the electrical and thermal conductivity of Ni-alloys for LIGA microsystems. Microsystem Technologies, 2004, 10, 510-516.	1.2	6
67	Photo-Thermoelectric Technique for Anisotropic Thermal Diffusivity Measurements. IEEE Transactions on Components and Packaging Technologies, 2007, 30, 609-617.	1.4	6
68	Improvement of Seebeck coefficient in as-grown Bi ₂ Te ₃ -ySey electrodeposited films by the addition of additives and bath optimization. Electrochimica Acta, 2018, 269, 490-498.	2.6	6
69	Effect of molecular length on the electrical conductance across metal-alkanedithiol-Bi ₂ Te ₃ interfaces. Applied Physics Letters, 2016, 109, .	1.5	5
70	Effect of disordered nanoporosity on electrical and thermal properties of layered Ca ₃ Co ₄ O ₉ films. Applied Physics Letters, 2022, 120, 061904.	1.5	5
71	Engineering thermoelectric and mechanical properties by nanoporosity in calcium cobaltate films from reactions of Ca(OH) ₂ /Co ₃ O ₄ multilayers. Nanoscale Advances, 2022, 4, 3353-3361.	2.2	5
72	Sensitivity and Spatial Resolution for Thermal Conductivity Measurements using Non-contact Scanning Thermal Microscopy with Thermoresistive Probes under Ambient Conditions. Oxford Open Materials Science, 0, , .	0.5	4

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73	Development of Experimental Techniques for Thermoelectric Properties Characterization of Low-Dimensional Structures. Materials Research Society Symposia Proceedings, 2003, 793, 244.	0.1	3
74	Thermal transport measurements in multi-wall carbon nanotube strands using the 3w method. , 0, , .		3
75	Thermal conductivity of double-wall carbon nanotube-polyaniline composites measured by a non-contact scanning hot probe technique. , 2017, , .		3
76	Thermoelectric property characterization of low-dimensional structures. , 0, , .		2
77	Thermophysical Properties of Ni Films for LIGA Microsystems. Materials Research Society Symposia Proceedings, 2003, 782, 1.	0.1	2
78	A photo-thermoelectric technique for anisotropic thermal diffusivity characterization of nanowire/nanotube composites. , 0, , .		2
79	On the sintering of gold nanorod assemblies towards continuous networks. RSC Advances, 2015, 5, 55678-55685.	1.7	2
80	Development of an instrumented glass microchannel device for critical heat flux visualization and studies. , 0, , .		1
81	Report on 6th U.S.â€™Japan Joint Seminar on Nanoscale Transport Phenomenaâ€™Science and Engineering. Nanoscale and Microscale Thermophysical Engineering, 2008, 12, 273-293.	1.4	1
82	Introducing Nanotechnology into the Thermal and Fluids Curricula: Pool Boiling Heat Transfer in Nanofluids. International Journal of Mechanical Engineering Education, 2012, 40, 276-288.	0.6	1
83	Novel Measurement Methods for Thermoelectric Power Generator Materials and Devices. , 2016, , .		1
84	Theoretical modeling of a thermal wave technique to determine the extent of the freezing region surrounding a cryoprobe. Journal of Applied Physics, 2020, 127, 185101.	1.1	1
85	Transport properties of polycrystalline Si/sub 0.8/Ge/sub 0.2/ thin films for micro power generators. , 0, , .		0
86	Thermal and Electrical Transport Measurements of Single-Walled Carbon Nanotube Strands. Materials Research Society Symposia Proceedings, 2003, 788, 5111.	0.1	0
87	Electrical breakdown gas detector featuring carbon nanotube array electrodes. Journal of Nanoscience and Nanotechnology, 2008, 8, 416-9.	0.9	0
88	The effect of the contact point asymmetry on the accuracy of thin films thermal conductivity measurement by scanning thermal microscopy using Wollaston probes. Journal of Applied Physics, 2022, 131, 094902.	1.1	0