

John A Tomko

List of Publications by Year in descending order

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41
papers

768
citations

567281

15
h-index

552781

26
g-index

42
all docs

42
docs citations

42
times ranked

864
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal conductivity and hardness of three single-phase high-entropy metal diborides fabricated by borocarbothermal reduction and spark plasma sintering. <i>Ceramics International</i> , 2020, 46, 6906-6913.	4.8	107
2	Tunable thermal transport and reversible thermal conductivity switching in topologically networked bio-inspired materials. <i>Nature Nanotechnology</i> , 2018, 13, 959-964.	31.5	81
3	High In-Plane Thermal Conductivity of Aluminum Nitride Thin Films. <i>ACS Nano</i> , 2021, 15, 9588-9599.	14.6	58
4	Electron and phonon thermal conductivity in high entropy carbides with variable carbon content. <i>Acta Materialia</i> , 2020, 196, 231-239.	7.9	52
5	Long-lived modulation of plasmonic absorption by ballistic thermal injection. <i>Nature Nanotechnology</i> , 2021, 16, 47-51.	31.5	40
6	Emergent interface vibrational structure of oxide superlattices. <i>Nature</i> , 2022, 601, 556-561.	27.8	40
7	Thermal Conductivity Reduction at Inorganic-Organic Interfaces: From Regular Superlattices to Irregular Gradient Layer Sequences. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701692.	3.7	26
8	Observation of solid-state bidirectional thermal conductivity switching in antiferroelectric lead zirconate (PbZrO ₃). <i>Nature Communications</i> , 2022, 13, 1573.	12.8	25
9	Suppressed electronic contribution in thermal conductivity of Ge ₂ Sb ₂ Se ₄ Te. <i>Nature Communications</i> , 2021, 12, 7187.	12.8	23
10	Hybridization from Guest-Host Interactions Reduces the Thermal Conductivity of Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2022, 144, 3603-3613.	13.7	23
11	Bulk-like Intrinsic Phonon Thermal Conductivity of Micrometer-Thick AlN Films. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 29443-29450.	8.0	22
12	Control of Charge Carrier Dynamics in Plasmonic Au Films by TiO _x Substrate Stoichiometry. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1419-1427.	4.6	21
13	Hot Electron Thermoreflectance Coefficient of Gold during Electron-Phonon Nonequilibrium. <i>ACS Photonics</i> , 2018, 5, 4880-4887.	6.6	20
14	Nanoscale Wetting and Energy Transmission at Solid/Liquid Interfaces. <i>Langmuir</i> , 2019, 35, 2106-2114.	3.5	20
15	Local thermal conductivity measurements to determine the fraction of β -cristobalite in thermally grown oxides for aerospace applications. <i>Scripta Materialia</i> , 2020, 177, 214-217.	5.2	18
16	Direct Laser Writing from Aqueous Precursors for Nano to Microscale Topographical Control, Integration, and Synthesis of Nanocrystalline Mixed Metal Oxides. <i>ACS Applied Nano Materials</i> , 2019, 2, 2581-2586.	5.0	17
17	Irradiation with visible light enhances the antibacterial toxicity of silver nanoparticles produced by laser ablation. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	14
18	Thin Ti adhesion layer breaks bottleneck to hot hole relaxation in Au films. <i>Journal of Chemical Physics</i> , 2019, 150, 184701.	3.0	14

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19	A New Polystyrene-Poly(vinylpyridinium) Ionic Copolymer Dopant for n-Type All-Polymer Thermoelectrics with High and Stable Conductivity Relative to the Seebeck Coefficient giving High Power Factor. <i>Advanced Materials</i> , 2022, 34, e2201062.	21.0	13
20	Anisotropic thermal conductivity tensor of $\text{Y}_2\text{Si}_2\text{O}_7$ for orientational control of heat flow on micrometer scales. <i>Acta Materialia</i> , 2020, 189, 299-305.	7.9	12
21	Mid-wave to near-IR optoelectronic properties and epsilon-near-zero behavior in indium-doped cadmium oxide. <i>Physical Review Materials</i> , 2021, 5, .	2.4	12
22	Organic-component dependent thermal conductivity reduction in ALD/MLD grown ZnO:organic superlattice thin films. <i>Applied Physics Letters</i> , 2021, 118, 211903.	3.3	10
23	Energy confinement and thermal boundary conductance effects on short-pulsed thermal ablation thresholds in thin films. <i>Physical Review B</i> , 2017, 96, .	3.2	9
24	Electron-Phonon Relaxation at Au/Ti Interfaces Is Robust to Alloying: Ab Initio Nonadiabatic Molecular Dynamics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22842-22850.	3.1	9
25	Hydrogen effects on the thermal conductivity of delocalized vibrational modes in amorphous silicon nitride	2.4	9
26	Band alignment and defects influence the electron-phonon heat transport mechanisms across metal interfaces. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	8
27	Temperature dependent electron-phonon coupling of Au resolved via lattice dynamics measured with sub-picosecond infrared pulses. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	8
28	Ultrafast laser-probing spectroscopy for studying molecular structure of protein aggregates. <i>Analyst</i> , 2017, 142, 1434-1441.	3.5	7
29	Large tunability in the mechanical and thermal properties of carbon nanotube-fullerene hierarchical monoliths. <i>Nanoscale</i> , 2018, 10, 22166-22172.	5.6	7
30	Electron-phonon relaxation at the Au/WSe ₂ interface is significantly accelerated by a Ti adhesion layer: time-domain <i>ab initio</i> analysis. <i>Nanoscale</i> , 2022, 14, 10514-10523.	5.6	7
31	Plasma-induced surface cooling. <i>Nature Communications</i> , 2022, 13, 2623.	12.8	6
32	Orientation-Controlled Anisotropy in Single Crystals of Quasi-1D BaTiS ₃ . <i>Chemistry of Materials</i> , 2022, 34, 5680-5689.	6.7	6
33	Reducing the thermal conductivity of chemically ordered binary alloys below the alloy limit via the alteration of phonon dispersion relations. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	4
34	Localized thin film damage sourced and monitored via pump-probe modulated thermoreflectance. <i>Review of Scientific Instruments</i> , 2017, 88, 054903.	1.3	4
35	Substrate thermal conductivity controls the ability to manufacture microstructures via laser-induced direct write. <i>Applied Physics Letters</i> , 2018, 112, 051906.	3.3	4
36	Vacancy-Induced Temperature-Dependent Thermal and Magnetic Properties of Holmium-Substituted Bismuth Ferrite Nanoparticle Compacts. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25886-25897.	8.0	4

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37	Quasi-harmonic theory for phonon thermal boundary conductance at high temperatures. Journal of Applied Physics, 2022, 131, 015101.	2.5	3
38	Synthesis and thermal transport of eco-friendly Fe-Si-Ge alloys with eutectic/eutectoid microstructure. Materials Chemistry and Physics, 2018, 207, 67-75.	4.0	2
39	Simultaneously enhanced electrical conductivity and suppressed thermal conductivity for ALD ZnO films via purge-time controlled defects. Applied Physics Letters, 2022, 120, .	3.3	2
40	Thermal conductance of aluminum oxy-fluoride passivation layers. Applied Physics Letters, 2019, 115, .	3.3	1
41	Detection of sub-micrometer thermomechanical and thermochemical failure mechanisms in titanium with a laser-based thermorefectance technique. Journal of Applied Physics, 2022, 131, 055104.	2.5	1