

John A Tomko

List of Publications by Year in descending order

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41
papers

768
citations

567281

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42
all docs

42
docs citations

42
times ranked

864
citing authors

#	ARTICLE	IF	CITATIONS
1	Quasi-harmonic theory for phonon thermal boundary conductance at high temperatures. Journal of Applied Physics, 2022, 131, 015101.	2.5	3
2	Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.	27.8	40
3	Detection of sub-micrometer thermomechanical and thermochemical failure mechanisms in titanium with a laser-based thermoreflectance technique. Journal of Applied Physics, 2022, 131, 055104.	2.5	1
4	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
5	Hybridization from Guest-Host Interactions Reduces the Thermal Conductivity of Metal-Organic Frameworks. Journal of the American Chemical Society, 2022, 144, 3603-3613.	13.7	23
6	Observation of solid-state bidirectional thermal conductivity switching in antiferroelectric lead zirconate (PbZrO ₃). Nature Communications, 2022, 13, 1573.	12.8	25
7	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. Advanced Materials, 2022, 34, e2201062.	21.0	13
8	Plasma-induced surface cooling. Nature Communications, 2022, 13, 2623.	12.8	6
9	Vacancy-Induced Temperature-Dependent Thermal and Magnetic Properties of Holmium-Substituted Bismuth Ferrite Nanoparticle Compacts. ACS Applied Materials & Interfaces, 2022, 14, 25886-25897.	8.0	4
10	Orientation-Controlled Anisotropy in Single Crystals of Quasi-1D BaTiS ₃ . Chemistry of Materials, 2022, 34, 5680-5689.	6.7	6
11	Electron-phonon relaxation at the Au/WSe ₂ interface is significantly accelerated by a Ti adhesion layer: time-domain analysis. Nanoscale, 2022, 14, 10514-10523.	5.6	7
12	Long-lived modulation of plasmonic absorption by ballistic thermal injection. Nature Nanotechnology, 2021, 16, 47-51.	31.5	40
13	Hydrogen effects on the thermal conductivity of delocalized vibrational modes in amorphous silicon nitride $\langle \kappa \rangle$ analysis. Nanoscale, 2022, 14, 10514-10523.	2.4	1
14	Mid-wave to near-IR optoelectronic properties and epsilon-near-zero behavior in indium-doped cadmium oxide. Physical Review Materials, 2021, 5, .	2.4	12
15	High In-Plane Thermal Conductivity of Aluminum Nitride Thin Films. ACS Nano, 2021, 15, 9588-9599.	14.6	58
16	Band alignment and defects influence the electron-phonon heat transport mechanisms across metal interfaces. Applied Physics Letters, 2021, 118, .	3.3	8
17	Temperature dependent electron-phonon coupling of Au resolved via lattice dynamics measured with sub-picosecond infrared pulses. Journal of Applied Physics, 2021, 129, .	2.5	8
18	Organic-component dependent thermal conductivity reduction in ALD/MLD grown ZnO:organic superlattice thin films. Applied Physics Letters, 2021, 118, 211903.	3.3	10

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19	Suppressed electronic contribution in thermal conductivity of Ge ₂ Sb ₂ Se ₄ Te. Nature Communications, 2021, 12, 7187.	12.8	23
20	Local thermal conductivity measurements to determine the fraction of β -cristobalite in thermally grown oxides for aerospace applications. Scripta Materialia, 2020, 177, 214-217.	5.2	18
21	Thermal conductivity and hardness of three single-phase high-entropy metal diborides fabricated by borocarbothermal reduction and spark plasma sintering. Ceramics International, 2020, 46, 6906-6913.	4.8	107
22	Bulk-like Intrinsic Phonon Thermal Conductivity of Micrometer-Thick AlN Films. ACS Applied Materials & Interfaces, 2020, 12, 29443-29450.	8.0	22
23	Electron and phonon thermal conductivity in high entropy carbides with variable carbon content. Acta Materialia, 2020, 196, 231-239.	7.9	52
24	Anisotropic thermal conductivity tensor of β -Y ₂ Si ₂ O ₇ for orientational control of heat flow on micrometer scales. Acta Materialia, 2020, 189, 299-305.	7.9	12
25	Control of Charge Carrier Dynamics in Plasmonic Au Films by TiO _x Substrate Stoichiometry. Journal of Physical Chemistry Letters, 2020, 11, 1419-1427.	4.6	21
26	Electron-Phonon Relaxation at Au/Ti Interfaces Is Robust to Alloying: Ab Initio Nonadiabatic Molecular Dynamics. Journal of Physical Chemistry C, 2019, 123, 22842-22850.	3.1	9
27	Thin Ti adhesion layer breaks bottleneck to hot hole relaxation in Au films. Journal of Chemical Physics, 2019, 150, 184701.	3.0	14
28	Direct Laser Writing from Aqueous Precursors for Nano to Microscale Topographical Control, Integration, and Synthesis of Nanocrystalline Mixed Metal Oxides. ACS Applied Nano Materials, 2019, 2, 2581-2586.	5.0	17
29	Thermal conductance of aluminum oxy-fluoride passivation layers. Applied Physics Letters, 2019, 115, .	3.3	1
30	Nanoscale Wetting and Energy Transmission at Solid/Liquid Interfaces. Langmuir, 2019, 35, 2106-2114.	3.5	20
31	Thermal Conductivity Reduction at Inorganic-Organic Interfaces: From Regular Superlattices to Irregular Gradient Layer Sequences. Advanced Materials Interfaces, 2018, 5, 1701692.	3.7	26
32	Substrate thermal conductivity controls the ability to manufacture microstructures via laser-induced direct write. Applied Physics Letters, 2018, 112, 051906.	3.3	4
33	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
34	Large tunability in the mechanical and thermal properties of carbon nanotube-fullerene hierarchical monoliths. Nanoscale, 2018, 10, 22166-22172.	5.6	7
35	Hot Electron Thermoreflectance Coefficient of Gold during Electron-Phonon Nonequilibrium. ACS Photonics, 2018, 5, 4880-4887.	6.6	20
36	Tunable thermal transport and reversible thermal conductivity switching in topologically networked bio-inspired materials. Nature Nanotechnology, 2018, 13, 959-964.	31.5	81

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37	Ultrafast laser-probing spectroscopy for studying molecular structure of protein aggregates. <i>Analyst, The</i> , 2017, 142, 1434-1441.	3.5	7
38	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
39	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
40	Localized thin film damage sourced and monitored via pump-probe modulated thermoreflectance. <i>Review of Scientific Instruments</i> , 2017, 88, 054903.	1.3	4
41	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