

# Qiang Cheng

## List of Publications by Year in descending order

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88  
papers

1,889  
citations

236925

25  
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302126

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88  
all docs

88  
docs citations

88  
times ranked

1005  
citing authors

#	ARTICLE	IF	CITATIONS
1	Physical and chemical characterization of two kinds of coal-derived soot. <i>Combustion and Flame</i> , 2022, 238, 111759.	5.2	5
2	Enhanced Near-Field Radiative Heat Transfer between Graphene/hBN Systems. <i>Small</i> , 2022, 18, e2108032.	10.0	18
3	Decoupling Investigation of Furnace Side and Evaporation System in a Pulverized-Coal Oxy-Fuel Combustion Boiler. <i>Energies</i> , 2022, 15, 2354.	3.1	1
4	Active Control of Near-Field Radiative Heat Transfer Between InSb and Graphene Multilayered Magneto-Optical Metamaterials. <i>International Journal of Heat and Mass Transfer</i> , 2022, 192, 122868.	4.8	9
5	Enhanced Near-Field Radiative Heat Transfer between Graphene/hBN Systems ( <i>Small</i> 19/2022). <i>Small</i> , 2022, 18, .	10.0	0
6	Study on the combustion behavior of single coal particle using a thermal-imaging technique. <i>Combustion and Flame</i> , 2022, 242, 112178.	5.2	8
7	Actively tunable hybrid plasmon-phonon polariton modes in ferroelectric/graphene heterostructure systems at low-THz frequencies. <i>Optical Materials</i> , 2022, 131, 112623.	3.6	3
8	Thermodynamic performance of near-field electroluminescence and negative electroluminescent refrigeration systems. <i>AIMS Energy</i> , 2021, 9, 465-482.	1.9	0
9	Many-body near-field radiative heat transfer: methods, functionalities and applications. <i>Reports on Progress in Physics</i> , 2021, 84, 036501.	20.1	45
10	Design of multi-ellipse broadband metamaterial absorber. <i>Journal of Physics: Conference Series</i> , 2021, 1871, 012030.	0.4	0
11	Magnetic-field control of near-field radiative heat transfer by liquid crystals-based magneto-optical metamaterials. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 425103.	2.8	6
12	Hyperbolic plasmon-phonon dispersion and tunable spontaneous emission enhancement in Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> -based multilayer graphene and hBN system. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	7
13	Study on the combustion behavior and soot formation of single coal particle using hyperspectral imaging technique. <i>Combustion and Flame</i> , 2021, 233, 111568.	5.2	21
14	Thermodynamic bounds of work and efficiency in near-field thermoradiative systems. <i>International Journal of Heat and Mass Transfer</i> , 2021, 180, 121807.	4.8	0
15	Simultaneous Reconstruction of the Temperature and Inhomogeneous Radiative Properties of Soot in Atmospheric and Pressurized Ethylene/Air Flames. <i>Combustion Science and Technology</i> , 2020, 192, 1946-1962.	2.3	5
16	Effects of surface emissivity and medium scattering albedo on the computational accuracy of radiative heat transfer by MCM. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 240, 106712.	2.3	6
17	Experimental Study on Co-Firing of Coal and Brewery Wastewater Sludge. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7589.	2.5	4
18	Magnetic-field control of near-field radiative heat transfer between graphene-based hyperbolic metamaterials. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	13

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19	Dynamic thermal camouflage via a liquid-crystal-based radiative metasurface. <i>Nanophotonics</i> , 2020, 9, 855-863.	6.0	73
20	Magnetically Tunable Near-Field Radiative Heat Transfer in Hyperbolic Metamaterials. <i>Physical Review Applied</i> , 2020, 13, .	3.8	38
21	Evaluation of performance of near-field thermophotovoltaic systems based on entropy analysis. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	8
22	Thermal routing via near-field radiative heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2020, 150, 119346.	4.8	30
23	Machine learning-optimized Tamm emitter for high-performance thermophotovoltaic system with detailed balance analysis. <i>Nano Energy</i> , 2020, 72, 104687.	16.0	53
24	Multichannel tunable narrowband mid-infrared optical filter based on phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ defect layers. <i>Applied Optics</i> , 2020, 59, 595.	1.8	14
25	Tunable narrowband shortwave-infrared absorber made of a nanodisk-based metasurface and a phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ layer. <i>Applied Optics</i> , 2020, 59, 6309.	1.8	16
26	Radiative metasurface for thermal camouflage, illusion and messaging. <i>Optics Express</i> , 2020, 28, 875.	3.4	63
27	Dual-band tunable narrowband near-infrared light trapping control based on a hybrid grating-based Fabry-Pérot structure. <i>Optics Express</i> , 2020, 28, 1647.	3.4	37
28	Ultrafast Tunable Near-Field Radiative Thermal Modulator Made of $\text{Ge}_3\text{Sb}_2\text{Te}_6$ . <i>Journal of Heat Transfer</i> , 2019, 141, .	2.1	4
29	Radiative Heat Transfer in Two-Dimensional Cylindrical Medium Coupled with BRDF Surface. <i>Journal of Thermophysics and Heat Transfer</i> , 2019, 33, 1065-1073.	1.6	2
30	Study of temperature, apparent spectral emissivity, and soot loading of a single burning coal particle using hyper-spectral imaging technique. <i>Combustion and Flame</i> , 2019, 209, 267-277.	5.2	17
31	Co-firing characteristics and kinetic analysis of distillers'™ grains/coal for power plant. <i>IET Renewable Power Generation</i> , 2019, 13, 2148-2155.	3.1	1
32	Modulation and splitting of three-body radiative heat flux via graphene/SiC core-shell nanoparticles. <i>International Journal of Heat and Mass Transfer</i> , 2019, 140, 80-87.	4.8	26
33	Plasmon-enhanced broadband absorption of $\text{MoS}_2$ -based structure using Au nanoparticles. <i>Optics Express</i> , 2019, 27, 2305.	3.4	31
34	Highly efficient narrow-band absorption of a graphene-based Fabry-Pérot structure at telecommunication wavelengths. <i>Optics Letters</i> , 2019, 44, 3430.	3.3	38
35	Surface plasmon-enhanced optical absorption in monolayer $\text{MoS}_2$ with one-dimensional Au grating. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 211, 138-143.	2.3	15
36	A direct solution for radiative intensity with high directional resolution in isotropically scattering media. <i>International Journal of Heat and Mass Transfer</i> , 2018, 117, 296-302.	4.8	14

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37	Ultra-narrow-band and highly efficient near-infrared absorption of a graphene-based Tamm plasmon polaritons structure. Journal of Applied Physics, 2018, 124, .	2.5	27
38	Broadband perfect infrared absorption by tuning epsilon-near-zero and epsilon-near-pole resonances of multilayer ITO nanowires. Applied Optics, 2018, 57, 102.	1.8	18
39	Three-Body Heat Transfer Between Anisotropic Magneto-Dielectric Hyperbolic Metamaterials. Journal of Heat Transfer, 2018, 140, .	2.1	23
40	The effect of BRDF surface on radiative transfer within a two-dimensional graded index medium. International Journal of Thermal Sciences, 2017, 117, 90-97.	4.9	9
41	Numerical simulation of white double-layer coating with different submicron particles on the spectral reflectance. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 176-180.	2.3	13
42	Study on inversion of morphological parameters of soot aggregates in hydrocarbon flames. Combustion and Flame, 2017, 183, 261-270.	5.2	20
43	Optimal turbine pressure drop for solar chimney-aided dry cooling system in coal-fired power plants. Energy Conversion and Management, 2017, 133, 87-96.	9.2	15
44	Radiative Properties of Ceramic $\text{Al}_2\text{O}_3$ , AlN and $\text{Si}_3\text{N}_4$ : Modeling. International Journal of Thermophysics, 2017, 38, 1.	2.1	18
45	In Situ Measurement of Alkali Metals in an MSW Incinerator Using a Spontaneous Emission Spectrum. Applied Sciences (Switzerland), 2017, 7, 263.	2.5	23
46	Enhanced absorptance of the assembly structure incorporating germanium nanorods and two-dimensional silicon gratings for photovoltaics. Applied Optics, 2016, 55, 8821.	2.1	13
47	Numerical Analysis on Thermal Tuning Efficiency and Thermal Stress of a Thermally Tunable SG-DBR Laser. IEEE Photonics Journal, 2016, 8, 1-12.	2.0	13
48	Thermal analysis and design of SG-DBR laser array. , 2016, , .		0
49	Investigation of double-layer coating pigmented with CuO particles of different concentrations on aesthetic and thermal aspects. International Journal of Thermal Sciences, 2016, 105, 36-44.	4.9	33
50	Numerical study on a multiple-channel micro combustor for a micro-thermophotovoltaic system. Energy Conversion and Management, 2016, 120, 197-205.	9.2	73
51	Optical properties of a grating-nanorod assembly structure for solar cells. Optics Communications, 2016, 376, 14-20.	2.1	27
52	Near-field radiative heat transfer between graphene and anisotropic magneto-dielectric hyperbolic metamaterials. Physical Review B, 2016, 94, .	3.2	63
53	Radiative Properties of Ceramic $\text{Al}_2\text{O}_3$ , AlN, and $\text{Si}_3\text{N}_4$ : I. Experiments. International Journal of Thermophysics, 2016, 37, 1.	2.1	19
54	Changing Characteristics of Flame Images Under Different Oxy-Fuel Atmospheres in a 3-MW Pilot-Scale Furnace. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2265-2271.	4.7	8

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55	Two-dimensional trilayer grating with a metal/insulator/metal structure as a thermophotovoltaic emitter. <i>Applied Optics</i> , 2016, 55, 1284.	2.1	31
56	Numerical investigation of a novel micro combustor with double-cavity for micro-thermophotovoltaic system. <i>Energy Conversion and Management</i> , 2015, 106, 173-180.	9.2	77
57	The DRESOR method for one-dimensional transient radiative transfer in graded index medium coupled with BRDF surface. <i>International Journal of Thermal Sciences</i> , 2015, 91, 96-104.	4.9	20
58	1D trilayer films grating with W/SiO <sub>2</sub> /W structure as a wavelength-selective emitter for thermophotovoltaic applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 158, 136-144.	2.3	36
59	Performance of a large-scale solar updraft power plant in a moist climate. <i>International Journal of Heat and Mass Transfer</i> , 2015, 91, 619-629.	4.8	21
60	Simultaneous Measurement of Three-Dimensional Temperature Distributions and Radiative Properties Based on Radiation Image Processing Technology in a Gas-Fired Pilot Tubular Furnace. <i>Heat Transfer Engineering</i> , 2014, 35, 770-779.	1.9	45
61	Silicon complex grating with different groove depths as an absorber for solar cells. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 132, 70-79.	2.3	26
62	The DRESOR method for radiative heat transfer in semitransparent graded index cylindrical medium. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 143, 16-24.	2.3	17
63	The effect of BRDF surface on radiative heat transfer within a one-dimensional graded index medium. <i>International Journal of Thermal Sciences</i> , 2014, 77, 116-125.	4.9	13
64	Tailored non-imaging secondary reflectors designed for solar concentration systems. <i>Solar Energy</i> , 2014, 110, 160-167.	6.1	16
65	Non-imaging concentrating reflectors designed for solar concentration systems. <i>Solar Energy</i> , 2014, 103, 494-501.	6.1	19
66	Solution of radiative intensity with high directional resolution in three-dimensional rectangular enclosures by DRESOR method. <i>International Journal of Heat and Mass Transfer</i> , 2013, 60, 81-87.	4.8	11
67	The DRESOR method for transient radiation transfer in 1-D graded index medium with pulse irradiation. <i>International Journal of Thermal Sciences</i> , 2013, 68, 127-135.	4.9	28
68	Analysis and Optimisation of Two-Dimensional Silicon Complex Grating With Different Ridge Heights or Groove Depths for Solar Cells. , 2013, , .		1
69	Equation-solving DRESOR method for radiative transfer in a plane-parallel, absorbing, emitting, and isotropically scattering medium with transparent boundaries. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 3454-3457.	4.8	12
70	The DRESOR method for radiative heat transfer in a one-dimensional medium with variable refractive index. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 2835-2845.	2.3	18
71	Road surface mirage: A bunch of hot air?. <i>Science Bulletin</i> , 2011, 56, 962-968.	1.7	6
72	Nongray radiation from gas and soot mixtures in planar plates based on statistical narrow-band spectral model. <i>Frontiers in Energy</i> , 2011, 5, 149-158.	2.3	3

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73	An improved colorimetric method for visualization of 2-D, inhomogeneous temperature distribution in a gas fired industrial furnace by radiation image processing. Proceedings of the Combustion Institute, 2011, 33, 2755-2762.	3.9	27
74	The Simulation of Apparent Directional Emissivity in a Three-Dimensional Non-Isothermal Medium by the DRESOR Method. , 2011, , .		0
75	COMPARISON OF TWO STATISTICAL NARROW BAND MODELS FOR NON-GRAY GAS RADIATION IN PLANAR PLATES. , 2010, , .		1
76	Existence of Dual-Peak Temporal Reflectance from a Light Pulse Irradiated Two-Layer Medium. Numerical Heat Transfer; Part A: Applications, 2009, 56, 342-359.	2.1	10
77	The Iterative-DRESOR method to solve radiative transfer in a plane-parallel, anisotropic scattering medium with specular-diffuse boundaries. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1072-1084.	2.3	7
78	Distributed parameter modeling and simulation for the evaporation system of a controlled circulation boiler based on 3-D combustion monitoring. Applied Thermal Engineering, 2008, 28, 164-177.	6.0	16
79	Solution of radiative transfer in a one-dimensional anisotropic scattering media with different boundary conditions using the DRESOR method. Heat Transfer - Asian Research, 2008, 37, 138-152.	2.8	8
80	The Solution of Transient Radiative Transfer With Collimated Incident Serial Pulse in a Plane-Parallel Medium by the DRESOR Method. Journal of Heat Transfer, 2008, 130, .	2.1	23
81	Highly-Directional Radiative Intensity in a 2-D Rectangular Enclosure Calculated by the DRESOR Method. Numerical Heat Transfer, Part B: Fundamentals, 2008, 54, 354-367.	0.9	15
82	The DRESOR Method for a Collimated Irradiation on an Isotropically Scattering Layer. Journal of Heat Transfer, 2007, 129, 634-645.	2.1	32
83	The influence of anisotropic scattering on the radiative intensity in a gray, plane-parallel medium calculated by the DRESOR method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 104, 99-115.	2.3	43
84	Experimental investigations on visualization of three-dimensional temperature distributions in a large-scale pulverized-coal-fired boiler furnace. Proceedings of the Combustion Institute, 2005, 30, 1699-1706.	3.9	195
85	A new way to calculate radiative intensity and solve radiative transfer equation through using the Monte Carlo method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 459-481.	2.3	50
86	THE DRESOR METHOD FOR THE SOLUTION OF THE RADIATIVE TRANSFER EQUATION IN GRAY PLANE-PARALLEL MEDIA. , 2004, , .		13
87	High Temporal-spatial Distribution of Soot Temperature and Volume Fraction in Single Coal Combustion Flame. Combustion Science and Technology, 0, , 1-13.	2.3	1
88	Magnetically tunable dual-band terahertz absorption based on guided-mode resonance. Applied Optics, 0, , .	1.8	2