

# John R Howell

## List of Publications by Year in descending order

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60  
papers

1,603  
citations

279798

23  
h-index

315739

38  
g-index

64  
all docs

64  
docs citations

64  
times ranked

792  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and Numerical Study of Premixed Combustion Within Nonhomogeneous Porous Ceramics. <i>Combustion Science and Technology</i> , 1993, 90, 149-172.	2.3	168
2	MEASUREMENTS OF THERMAL CONDUCTIVITY AND OPTICAL PROPERTIES OF POROUS PARTIALLY STABILIZED ZIRCONIA. <i>Experimental Heat Transfer</i> , 1992, 5, 293-313.	3.2	129
3	Comparison of Monte Carlo Strategies for Radiative Transfer in Participating Media. <i>Advances in Heat Transfer</i> , 1998, 31, 333-429.	0.9	98
4	Monte Carlo prediction of radiative heat transfer in inhomogeneous, anisotropic, nongray media. <i>Journal of Thermophysics and Heat Transfer</i> , 1994, 8, 133-139.	1.6	75
5	Combined radiation and natural convection in a two-dimensional participating square medium. <i>International Journal of Heat and Mass Transfer</i> , 1991, 34, 785-793.	4.8	69
6	Inverse Boundary Design Combining Radiation and Convection Heat Transfer. <i>Journal of Heat Transfer</i> , 2001, 123, 884-891.	2.1	61
7	Optimum solar collector operation for maximizing cycle work output. <i>Solar Energy</i> , 1977, 19, 149-153.	6.1	57
8	Numerical and experimental results for coupled heat and mass transfer between a desiccant film and air in cross-flow. <i>International Journal of Heat and Mass Transfer</i> , 1994, 37, 395-402.	4.8	53
9	Cure Kinetic Model, Heat of Reaction, and Glass Transition Temperature of AS4/3501-6 Graphite/Epoxy Prepregs. <i>Journal of Composite Materials</i> , 2002, 36, 2479-2498.	2.4	53
10	Comparison of three regularized solution techniques in a three-dimensional inverse radiation problem. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2002, 73, 307-316.	2.3	53
11	Monte Carlo solution of radiant heat transfer in a nongrey nonisothermal gas with temperature dependent properties. <i>AIChE Journal</i> , 1964, 10, 562-567.	3.6	50
12	Comparison of Methods for Inverse Design of Radiant Enclosures. <i>Journal of Heat Transfer</i> , 2006, 128, 269.	2.1	50
13	Radiative transfer configuration factor catalog: A listing of relations for common geometries. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 910-912.	2.3	46
14	The Application of an Inverse Formulation in the Design of Boundary Conditions for Transient Radiating Enclosures. <i>Journal of Heat Transfer</i> , 2002, 124, 1095-1102.	2.1	45
15	Combustion of Liquid Fuels in a Porous Radiant Burner. <i>Combustion Science and Technology</i> , 1996, 112, 141-161.	2.3	44
16	New numerical method for radiation heat transfer in nonhomogeneous participating media. <i>Journal of Thermophysics and Heat Transfer</i> , 1990, 4, 419-424.	1.6	37
17	Radiative transfer by the YIX method in nonhomogeneous, scattering, and nongray media. <i>Journal of Thermophysics and Heat Transfer</i> , 1993, 7, 487-495.	1.6	29
18	Surface plasmon-based nanopatterning assisted by gold nanospheres. <i>Nanotechnology</i> , 2008, 19, 025305.	2.6	26

#	ARTICLE	IF	CITATIONS
19	Thermal radiation heat transfer in one- and two-dimensional enclosures using the spectral collocation method with full spectrum k-distribution model. International Journal of Heat and Mass Transfer, 2014, 71, 35-43.	4.8	26
20	On-Line Processing of Unidirectional Fiber Composites Using Radiative Heating: I. Model. Journal of Composite Materials, 2002, 36, 1905-1934.	2.4	25
21	Metaheuristic Optimization of a Discrete Array of Radiant Heaters. Journal of Heat Transfer, 2006, 128, 1031-1040.	2.1	25
22	The Past and Future of the Monte Carlo Method in Thermal Radiation Transfer. Journal of Heat Transfer, 2021, 143, .	2.1	25
23	A Strongly Directional Emitting and Absorbing Surface. Journal of Heat Transfer, 1963, 85, 282-283.	2.1	24
24	Analysis of open inclined surface solar regenerators for absorption cooling applications—Comparison between numerical and analytical models. Solar Energy, 1982, 28, 265-268.	6.1	22
25	New Experimental Data for Enthalpy of Reaction and Temperature- and Degree-of-Cure-Dependent Specific Heat and Thermal Conductivity of the Hercules 3501-6 Epoxy System. Journal of Composite Materials, 2002, 36, 2061-2072.	2.4	17
26	Transient Thermal Modeling of In-Situ Curing During Tape Winding of Composite Cylinders. Journal of Heat Transfer, 2003, 125, 137-146.	2.1	17
27	On-Line Processing of Unidirectional Fiber Composites Using Radiative Heating: II. Radiative Properties, Experimental Validation and Process Parameter Selection. Journal of Composite Materials, 2002, 36, 1935-1965.	2.4	16
28	Evaluation of three different radiative transfer equation solvers for combined conduction and radiation heat transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 184, 262-273.	2.3	15
29	Application of approximations for joint cumulative k-distributions for mixtures to FSK radiation heat transfer in multi-component high temperature non-LTE plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1521-1535.	2.3	14
30	The effect of non-direct insolation on the radiative performance of trapezoidal grooves used as solar energy collectors. Solar Energy, 1977, 19, 549-553.	6.1	13
31	Optimization of Liquid Desiccant Systems for Solar/Geothermal Dehumidification and Cooling. Journal of Energy, 1981, 5, 401-408.	0.2	12
32	EMPIRICAL EVALUATION OF AN IMPORTANT APPROXIMATION FOR COMBINED-MODE HEAT TRANSFER IN A PARTICIPATING MEDIUM USING THE FINITE-ELEMENT METHOD. Numerical Heat Transfer, Part B: Fundamentals, 1995, 27, 309-322.	0.9	12
33	Transient inverse design of radiative enclosures for thermal processing of materials. Inverse Problems in Science and Engineering, 2006, 14, 423-436.	1.2	12
34	MEASUREMENT OF THE TEMPERATURE AND CURE DEPENDENCE OF THE THERMAL CONDUCTIVITY OF EPOXY RESIN. Experimental Heat Transfer, 1993, 6, 157-174.	3.2	11
35	Local Furnace Data and Modeling Comparison for a 600-MWe Coal-Fired Utility Boiler. Journal of Energy Resources Technology, Transactions of the ASME, 2002, 124, 56-66.	2.3	11
36	Boundary Condition Design to Heat a Moving Object at Uniform Transient Temperature Using Inverse Formulation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 619-626.	2.2	11

#	ARTICLE	IF	CITATIONS
37	Computational and experimental study of a multi-layer absorptivity enhanced thin film silicon solar cell. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 143, 56-62.	2.3	11
38	Validation of inverse boundary condition design in a thermometry test bed. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 317-326.	2.3	10
39	Simulation of a plasmonic tip-terminated scanning nanowire waveguide for molecular imaging. Applied Physics Letters, 2008, 93, 193101.	3.3	10
40	Challenges for radiative transfer 1: Towards the effective solution of conjugate heat transfer problems. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 221, 253-259.	2.3	10
41	Analytical and Experimental Investigation of Laser-Microsphere Interaction for Nanoscale Surface Modification. Journal of Heat Transfer, 2005, 127, 1231-1235.	2.1	9
42	Design and Analysis of Spectrally Selective Patterned Thin-Film Cells. International Journal of Thermophysics, 2013, 34, 1930-1952.	2.1	9
43	Monte Carlo Modeling of a Light-Pipe Radiation Thermometer. IEEE Transactions on Semiconductor Manufacturing, 2007, 20, 39-50.	1.7	8
44	Finite element solution of heat transfer for gas flow through a tube. AIAA Journal, 1982, 20, 1015-1019.	2.6	7
45	Statistical Analysis of Surface Nanopatterned Thin Film Solar Cells Obtained by Inverse Optimization. Journal of Heat Transfer, 2013, 135, .	2.1	7
46	Flexible Nanotexture Structures for Thin Film PV Cells Using Wavelet Functions. IEEE Nanotechnology Magazine, 2015, 14, 904-910.	2.0	7
47	CONVECTIVE DRYING MODEL OF SOUTHERN PINE. Drying Technology, 1997, 15, 2343-2375.	3.1	6
48	Errors Associated With Light-Pipe Radiation Thermometer Temperature Measurements. IEEE Transactions on Semiconductor Manufacturing, 2007, 20, 26-38.	1.7	6
49	Quantification of model-form uncertainty in the correlated-k distribution method for radiation heat transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 143, 73-82.	2.3	6
50	Coupling radiative heat transfer in participating media with other heat transfer modes. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 1473-1487.	1.6	6
51	MARKOV ANALYSIS OF RADIATIVE TRANSFER IN ENCLOSURES WITH BIDIRECTIONAL REFLECTIONS. Numerical Heat Transfer; Part A: Applications, 1991, 19, 313-326.	2.1	5
52	RADIATIVE DRYING MODEL OF POROUS MATERIALS. Drying Technology, 1997, 15, 2377-2399.	3.1	5
53	Efficient Signal Transport Model for Remote Thermometry in Full-Scale Thermal Processing Systems. IEEE Transactions on Semiconductor Manufacturing, 2010, 23, 132-140.	1.7	5
54	Combined natural convection and non-gray radiation heat transfer in a horizontal annulus. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 206, 242-250.	2.3	5

#	ARTICLE	IF	CITATIONS
55	A Personal View of 50Years of Thermal Radiation Heat Transfer Research. <i>Advances in Heat Transfer</i> , 2015, 47, 309-340.	0.9	4
56	A microsphere coupler for a nanowire waveguide plasmonic probe for molecular imaging. <i>Nanotechnology</i> , 2011, 22, 045203.	2.6	3
57	A Parametric Study of the Accuracy of Several Radiative Transport Solution Methods for a Set of 2-D Benchmark Problems. , 2013, , .		3
58	On Multilayer Modeling of Radiative Transfer for Use With the Multisource k-Distribution Method for Inhomogeneous Media. <i>Journal of Heat Transfer</i> , 2014, 136, .	2.1	3
59	A Multi-Source Full Spectrum K-Distribution Method for 1-D Inhomogeneous Media. <i>Journal of Physics: Conference Series</i> , 2012, 369, 012025.	0.4	1
60	Applied Solar Energy and Introduction to Solar Technology and Solar Heating Systems: Analysis and Design with the Sun-Pulse Method. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 1982, 104, 274-274.	1.8	0