Kyle Daun

List of Publications by Year
in descending order

90 papers	1,760 citations	279798 23 h-index	361022 35 g-index
94 all docs	94 docs citations	94 times ranked	840 citing authors

#	Article	IF	Citations
1	Thermal Radiation Heat Transfer. , 0, , .		105
2	Instantaneous 3D flame imaging by background-oriented schlieren tomography. Combustion and Flame, 2018, 196, 284-299.	5.2	96
3	Chemical species tomography of turbulent flows: Discrete ill-posed and rank deficient problems and the use of prior information. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 172, 58-74.	2.3	79
4	Experimental heat transfer coefficient measurements during hot forming die quenching of boron steel at high temperatures. International Journal of Heat and Mass Transfer, 2014, 71, 396-404.	4.8	64
5	In situ nanoparticle size measurements of gas-borne silicon nanoparticles by time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2014, 116, 623-636.	2.2	62
6	Laser-absorption tomography beam arrangement optimization using resolution matrices. Applied Optics, 2012, 51, 7059.	1.8	51
7	Quantifying uncertainty in soot volume fraction estimates using Bayesian inference of auto-correlated laser-induced incandescence measurements. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	48
8	Multiparameter gas sensing with linear hyperspectral absorption tomography. Measurement Science and Technology, 2019, 30, 105401.	2.6	44
9	Investigation of Thermal Accommodation Coefficients in Time-Resolved Laser-Induced Incandescence. Journal of Heat Transfer, 2008, 130, .	2.1	40
10	Molecular dynamics simulations of translational thermal accommodation coefficients for time-resolved LII. Applied Physics B: Lasers and Optics, 2009, 94, 39-49.	2.2	40
11	Bayesian approach to the design of chemical species tomography experiments. Applied Optics, 2016, 55, 5772.	2.1	39
12	Time-resolved laser-induced incandescence characterization of metal nanoparticles. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	39
13	Laser-induced incandescence from laser-heated silicon nanoparticles. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	37
14	Sizing aerosolized fractal nanoparticle aggregates through Bayesian analysis of wide-angle light scattering (WALS) data. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 184, 27-39.	2.3	37
15	Application of the conditional source-term estimation model for turbulenceâ€“chemistry interactions in a premixed flame. Combustion Theory and Modelling, 2012, 16, 301-320.	1.9	35
16	Thermal accommodation coefficients for laser-induced incandescence sizing of metal nanoparticles in monatomic gases. Applied Physics B: Lasers and Optics, 2013, 112, 409-420.	2.2	35
17	Examination of the thermal accommodation coefficient used in the sizing of iron nanoparticles by time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2015, 119, 561-575.	2.2	34
18	Experimental Characterization of Heat Transfer Coefficients During Hot Forming Die Quenching of Boron Steel. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2013, 44, 332-343.	2.1	33

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19	Can soot primary particle size distributions be determined using laser-induced incandescence?. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	30
20	Investigation of melting in the Alâ€“Si coating of a boron steel sheet by differential scanning calorimetry. Journal of Materials Processing Technology, 2015, 216, 89-94.	6.3	27
21	Molecular dynamics simulation of thermal accommodation coefficients for laser-induced incandescence sizing of nickel particles. Applied Physics B: Lasers and Optics, 2012, 107, 221-228.	2.2	26
22	General error model for analysis of laser-induced incandescence signals. Applied Optics, 2017, 56, 8436.	1.8	26
23	Inverse analysis and regularisation in conditional source-term estimation modelling. Combustion Theory and Modelling, 2014, 18, 474-499.	1.9	25
24	Non-stationary Bayesian estimation of parameters from a body cover model of the vocal folds. Journal of the Acoustical Society of America, 2016, 139, 2683-2696.	1.1	25
25	The Past and Future of the Monte Carlo Method in Thermal Radiation Transfer. Journal of Heat Transfer, 2021, 143, .	2.1	25
26	Spectral emissivity characteristics of the UsiborÂ® 1500P steel during austenitization in argon and air atmospheres. International Journal of Heat and Mass Transfer, 2015, 91, 818-828.	4.8	24
27	Design Optimization of a Two-Stage Porous Radiant Burner through Response Surface Modeling. Numerical Heat Transfer; Part A: Applications, 2011, 60, 727-745.	2.1	23
28	Sizing of Molybdenum Nanoparticles Using Time-Resolved Laser-Induced Incandescence. Journal of Heat Transfer, 2013, 135, .	2.1	23
29	Inferring the specific heat of an ultra high strength steel during the heating stage of hot forming die quenching, through inverse analysis. Applied Thermal Engineering, 2015, 83, 98-107.	6.0	23
30	Spectroscopic models for laser-heated silicon and copper nanoparticles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 197, 3-11.	2.3	21
31	Measurement-based meshing, basis selection, and prior assignment in chemical species tomography. Optics Express, 2017, 25, 25135.	3.4	21
32	Laser-induced incandescence for non-soot nanoparticles: recent trends and current challenges. Applied Physics B: Lasers and Optics, 2022, 128, 72.	2.2	21
33	Infrared species tomography of a transient flow field using Kalman filtering. Applied Optics, 2011, 50, 891.	2.1	20
34	Direct contact heating for hot forming die quenching. Applied Thermal Engineering, 2016, 98, 1165-1173.	6.0	20
35	Characterization of few-layer graphene aerosols by laser-induced incandescence. Carbon, 2020, 167, 870-880.	10.3	20
36	Laser-induced atomic emission of silicon nanoparticles during laser-induced heating. Applied Optics, 2017, 56, E50.	2.1	19

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37	Improving chemical species tomography of turbulent flows using covariance estimation. Applied Optics, 2017, 56, 3900.	2.1	19
38	Optimization of measurement angles for soot aggregate sizing by elastic light scattering, through design-of-experiment theory. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 355-365.	2.3	17
39	Effect of Surface Interatomic Potential on Thermal Accommodation Coefficients Derived from Molecular Dynamics. Journal of Physical Chemistry C, 2018, 122, 20431-20443.	3.1	17
40	Infinitesimal-Area Radiative Analysis Using Parametric Surface Representation, Through NURBS. Journal of Heat Transfer, 2001, 123, 249-256.	2.1	16
41	Soot aggregate sizing through multiangle elastic light scattering: Influence of model error. Journal of Aerosol Science, 2017, 111, 36-50.	3.8	16
42	Predicting the heat of vaporization of iron at high temperatures using time-resolved laser-induced incandescence and Bayesian model selection. Journal of Applied Physics, 2018, 123, 095103.	2.5	16
43	Laser-induced incandescence on metal nanoparticles: validity of the Rayleigh approximation. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	16
44	Efficient Bayesian inference of absorbance spectra from transmitted intensity spectra. Optics Express, 2019, 27, 26893.	3.4	16
45	Geometric Optimization of Radiant Enclosures Containing Specularly-Reflecting Surfaces through Quasi-Monte Carlo Simulation. Numerical Heat Transfer; Part A: Applications, 2011, 59, 81-97.	2.1	14
46	Quantifying uncertainty in auto-compensating laser-induced incandescence parameters due to multiple nuisance parameters. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	14
47	Defining regimes and analytical expressions for fluence curves in pulsed laser heating of aerosolized nanoparticles. Optics Express, 2017, 25, 5684.	3.4	14
48	Broadband chemical species tomography: Measurement theory and a proof-of-concept emission detection experiment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 198, 145-154.	2.3	13
49	Investigating temporal variation in the apparent volume fraction measured by time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	13
50	Detector calibration and measurement issues in multi-color time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	12
51	Geometric Optimization of Concentrating Solar Collectors using Monte Carlo Simulation. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	11
52	Influence of particle curvature on transition regime heat conduction from aerosolized nanoparticles. International Journal of Heat and Mass Transfer, 2012, 55, 7668-7676.	4.8	11
53	Line-of-sight-attenuation chemical species tomography through the level set method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 143, 25-34.	2.3	11
54	Gaussian model for emission rate measurement of heated plumes using hyperspectral data. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 206, 125-134.	2.3	11

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55	Interrogating Gas-Borne Nanoparticles Using Laser-Based Diagnostics and Bayesian Data Fusion. Journal of Physical Chemistry C, 2021, 125, 8382-8390.	3.1	10
56	Development of an Austenitization Kinetics Model for 22MnB5 Steel. Journal of Materials Engineering and Performance, 2018, 27, 1792-1802.	2.5	9
57	Plasma emission during time-resolved laser-induced incandescence measurements of aerosolized metal nanoparticles. Applied Physics B: Lasers and Optics, 2018, 124, 1.	2.2	9
58	Crumpled few-layer graphene: Connection between morphology and optical properties. Carbon, 2021, 182, 677-690.	10.3	9
59	Kalman filter approach for uncertainty quantification in time-resolved laser-induced incandescence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 386.	1.5	8
60	Investigating coating liquefaction and solidification of furnace-heated Al-Si coated 22MnB5 steel using laser reflectance. Surface and Coatings Technology, 2020, 393, 125795.	4.8	8
61	Multiphoton induced photoluminescence during time-resolved laser-induced incandescence experiments on silver and gold nanoparticles. Journal of Applied Physics, 2021, 129, .	2.5	8
62	Gas Dynamics of Sublimed Nanoclusters in High-Fluence Time-Resolved Laser-Induced Incandescence. Numerical Heat Transfer, Part B: Fundamentals, 2014, 65, 393-409.	0.9	7
63	Development and Validation of a Thermometallurgical Model for Furnace-Based Austenitization During Hot Stamping. Journal of Heat Transfer, 2019, 141, .	2.1	7
64	Time-Resolved Laser-Induced Incandescence Measurements on Aerosolized Nickel Nanoparticles. Journal of Physical Chemistry A, 2021, 125, 6273-6285.	2.5	7
65	Interpreting the radiative properties of advanced high strength steel using the geometric optics ray-tracing approximation. International Journal of Heat and Mass Transfer, 2021, 176, 121429.	4.8	7
66	Development of a multivariate spectral emissivity model for an advanced high strength steel alloy through factorial design-of-experiments. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 271, 107693.	2.3	7
67	Assessing Flare Combustion Efficiency using Imaging Fourier Transform Spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 273, 107835.	2.3	7
68	Dynamic Optimization of a Radiation Paint Cure Oven Using the Nominal Cure Point Criterion. Drying Technology, 2010, 28, 1405-1415.	3.1	6
69	Evolution of the Spectral Emissivity and Phase Transformations of the Al-Si Coating on UsiborÂ® 1500P Steel During Austenitization. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 3301-3309.	2.1	6
70	Phase-sensitive detection of gas-borne Si nanoparticles via line-of-sight UV/VIS attenuation. Optics Express, 2021, 29, 21795.	3.4	6
71	Uncertainty quantification and design-of-experiment in absorption-based aqueous film parameter measurements using Bayesian inference. Applied Optics, 2017, 56, E1.	2.1	6
72	Effect of Annealing Atmosphere and Steel Alloy Composition on Oxide Formation and Radiative Properties of Advanced High-Strength Steel Strip. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2022, 53, 380-393.	2.1	6

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73	Effect of recondensation of sublimed species on nanoparticle temperature evolution in time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2015, 119, 607-620.	2.2	4
74	Intercritical Annealing of 22MnB5 for Hot Forming Die Quenching. IOP Conference Series: Materials Science and Engineering, 2018, 418, 012010.	0.6	4
75	Evaluation of Drude parameters for liquid Germanium nanoparticles through aerosol-based line-of-sight attenuation measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 226, 146-156.	2.3	4
76	Tailoring by Direct Contact Heating During Hot Forming/Die Quenching. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3705-3713.	2.2	3
77	Discussion of â€œNormal Spectral Emissivity Measurement of Liquid Iron and Nickel Using Electromagnetic Levitation in Direct Current Magnetic Field.â€• Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3300-3302.	2.2	2
78	Optimal filter selection for quantitative gas mixture imaging. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 254, 107208.	2.3	2
79	Inferring the surface roughness of Al-Si coated 22MnB5 steel using anin situlaser speckle characterization technique. IOP Conference Series: Materials Science and Engineering, 2020, 967, 012075.	0.6	2
80	Interpreting the radiative properties of advanced high strength steel strip using a hybrid thin film/geometric optics model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107963.	2.3	2
81	Quantifying the Thermal Accommodation Coefficient for Iron Surfaces Using Molecular Dynamics Simulations. , 2015, , .		1
82	Uncertainty analysis of a water flow calorimeter while welding in short-circuit and spray transfer regimes. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 1615-1624.	2.5	1
83	Evaluation of 22MnB5 Steel Austenitization Sub-Models for Simulating the Heating Phase of Hot Stamping. IOP Conference Series: Materials Science and Engineering, 2020, 967, 012076.	0.6	1
84	LASER-INDUCED INCANDESCENCE MEASUREMENTS OF SILICON AND COPPER NANOPARTICLES: SPECTROSCOPIC MODEL. , 2016, , .		1
85	Laser-induced atomic emission of silicon nanoparticles during synthesis in a microwave plasma reactor. , 2016, , .		1
86	Choosing an Optimal Austenitization Submodel Using Bayesian Model Selection. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 0, , .	2.2	1
87	In Situ Particle Size Measurements of Gas-Borne Silicon Nanoparticles by Time-Resolved Laser-Induced Incandescence. , 2013, , .		0
88	Time Resolved Laser Induced Incandescence for Sizing Aerosolized Iron Nanoparticles. , 2014, , .		0
89	Minimizing the Cycle Time of a Roller Hearth Furnace for Hot-Forming Die-Quenching. IOP Conference Series: Materials Science and Engineering, 2018, 418, 012016.	0.6	0
90	Enhancing optical quantification of combustion products using thermochemical manifold reduction. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 289, 108293.	2.3	0