Nick G Glumac

List of Publications by Year
in descending order

110 papers	3,599 citations	126708 33 h-index	143772 57 g-index
110 all docs	110 docs citations	110 times ranked	2267 citing authors

#	Article	IF	Citations
1	Ultraviolet Emissions from Explosive Detonation Breakout. Applied Spectroscopy, 2022, 76, 310-317.	1.2	2
2	Iodine Release by Combustion of Composite Mgâ˘™Ca(IO3)2 Powder. Combustion Science and Technology, 2021, 193, 1042-1054.	1.2	3
3	Spectral Emission Signatures from Cased Highâ€Explosive Charges. Applied Spectroscopy, 2021, 75, 1410-1418.	1.2	4
4	Quantitative absorption spectroscopy of laser-produced plasmas. Journal Physics D: Applied Physics, 2021, 54, 125201.	1.3	12
5	Spectrallyâ€•and Temporallyâ€Resolved Optical Depth Measurements in High Explosive Postâ€Detonation Fireballs. Propellants, Explosives, Pyrotechnics, 2020, 45, 406-415.	1.0	12
6	Time-resolved formation of uranium and silicon oxides subsequent to the laser ablation of U3Si2. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 170, 105925.	1.5	22
7	Electrical Properties of Reversed-Polarity Ball Plasmoid Discharges. Plasma, 2020, 3, 92-102.	0.7	2
8	Optical emissions from spherical charges. AIP Conference Proceedings, 2020, , .	0.3	1
9	Diode laser monitoring of atomic iodine in explosive fireballs. Measurement Science and Technology, 2019, 30, 115501.	1.4	5
10	Characterization of high-explosive detonations using broadband infrared external cavity quantum cascade laser absorption spectroscopy. Journal of Applied Physics, 2019, 126, .	1.1	26
11	High speed temperature, pressure, and water vapor concentration measurement in explosive fireballs using tunable diode laser absorption spectroscopy. Optics and Lasers in Engineering, 2018, 110, 186-192.	2.0	37
12	Experimental study of structure/behavior relationship for a metallized explosive. AIP Conference Proceedings, 2018, , .	0.3	3
13	Elucidating uranium monoxide spectral features from a laser-produced plasma. Optics Express, 2018, 26, 20319.	1.7	26
14	Modeling the ignition of a copper oxide aluminum thermite. AIP Conference Proceedings, 2017, , .	0.3	1
15	Emission and laser absorption spectroscopy of flat flames in aluminum suspensions. Combustion and Flame, 2017, 180, 230-238.	2.8	43
16	Simultaneous Imaging and Spectroscopy of Detonation Interaction in Reactive and Energetic Materials. Applied Spectroscopy, 2017, 71, 78-86.	1.2	8
17	Nano-Alumina Accommodation Coefficient Measurement Using Time-Resolved Laser-Induced Incandescence. Journal of Heat Transfer, 2016, 138, .	1.2	8
18	Reactive Liners Prepared Using Powders of Aluminum and Aluminum-Magnesium Alloys. Propellants, Explosives, Pyrotechnics, 2016, 41, 605-611.	1.0	13

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19	Using magnesium to maximize heat generated by reactive Al/Zr nanolaminates. Combustion and Flame, 2015, 162, 2855-2864.	2.8	23
20	High-Temperature Metal Oxide Spectral Emissivities for Pyrometry Applications. Journal of Thermophysics and Heat Transfer, 2015, 29, 874-879.	0.9	5
21	Optical Depth Effects on Aluminum Oxide Spectral Emissivity. Journal of Thermophysics and Heat Transfer, 2015, 29, 74-82.	0.9	16
22	Depression of melting point for protective aluminum oxide films. Chemical Physics Letters, 2015, 618, 63-65.	1.2	17
23	Tungsten Combustion in Explosively Initiated W/Zr Mechanical Alloys. Journal of Energetic Materials, 2014, 32, 135-145.	1.0	12
24	Heat transfer effects in nano-aluminum combustion at high temperatures. Combustion and Flame, 2014, 161, 295-302.	2.8	55
25	Explosive Initiation of Various Forms of Ti/2B Reactive Materials. Propellants, Explosives, Pyrotechnics, 2014, 39, 454-462.	1.0	16
26	Combustion of Aluminum Suspensions in Hydrocarbon Flame Products. Journal of Propulsion and Power, 2014, 30, 1047-1054.	1.3	53
27	Temporally and Spatially Resolved Spectroscopic Measurements of Plasma-Actuator Thermal Properties. AIAA Journal, 2014, 52, 1802-1806.	1.5	0
28	Ultraviolet Absorption Spectroscopy in Optically Dense Fireballs Using Broadband Second-Harmonic Generation of a Pulsed Modeless Dye Laser. Applied Spectroscopy, 2014, 68, 517-524.	1.2	20
29	Early time spectroscopic measurements during high-explosive detonation breakout into air. Shock Waves, 2013, 23, 131-138.	1.0	20
30	On AlO Emission Spectroscopy as a Diagnostic in Energetic Materials Testing. Propellants, Explosives, Pyrotechnics, 2013, 38, 577-585.	1.0	42
31	Quantitative Evidence of Reaction during Hypervelocity Penetration of Aluminum through Oxygenated Fluids. Procedia Engineering, 2013, 58, 157-166.	1.2	0
32	Particle size and gas environment effects on blast and overpressure enhancement in aluminized explosives. Proceedings of the Combustion Institute, 2013, 34, 2205-2212.	2.4	45
33	Correlation Between Emission, Electric, and Flow Properties of Arc-Filament Plasma Actuators. AIAA Journal, 2013, 51, 922-935.	1.5	0
34	Analysis of the requirements on modern energetics and their impact on materials design. AIP Conference Proceedings, 2012, , .	0.3	1
35	Micro-alumina particle volatilization temperature measurements in a heterogeneous shock tube. Combustion and Flame, 2012, 159, 793-801.	2.8	12
36	Temporally and Spatially Resolved Spectroscopic Measurements of Plasma Actuator Thermal Properties. , 2012, , .		1

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37	Flow and Thermal Properties Induced by Electric Arc Plasma Actuators. , 2011, , .		6
38	Temperature Inhomogeneity during Multibubble Sonoluminescence. Angewandte Chemie - International Edition, 2010, 49, 1079-1082.	7.2	41
39	Combustion Measurements of Fuel-Rich Aluminum and Molybdenum Oxide Nano-Composite Mixtures. Propellants, Explosives, Pyrotechnics, 2010, 35, 93-99.	1.0	21
40	Quantitative Analysis of Soil Organic Carbon Using Laserâ€Induced Breakdown Spectroscopy: An Improved Method. Soil Science Society of America Journal, 2010, 74, 1922-1928.	1.2	28
41	Emissivity of Aluminum-Oxide Particle Clouds: Application to Pyrometry of Explosive Fireballs. Journal of Thermophysics and Heat Transfer, 2010, 24, 301-308.	0.9	57
42	Gas-Phase Reaction in Nanoaluminum Combustion. Combustion Science and Technology, 2010, 182, 842-857.	1.2	69
43	Energy Deposition Applied to a Transverse Jet in a Supersonic Crossflow. AIAA Journal, 2010, 48, 1662-1672.	1.5	16
44	NO and OH Spectroscopic Vibrational Temperature Measurements in a Post-Shock Relaxation Region. AIAA Journal, 2010, 48, 1434-1443.	1.5	16
45	High-Spectral Resolution PLIF Imaging of Compressible Flows and Plasmas. , 2010, , .		1
46	A Practical Approach to PIV Uncertainty Analysis. , 2010, , .		71
47	Optical Spectroscopy of Fireballs from Metallized Reactive Materials. , 2010, , .		6
48	Optical depth measurements of fireballs from aluminized high explosives. Optics and Lasers in Engineering, 2009, 47, 1009-1015.	2.0	45
49	A correlation for burn time of aluminum particles in the transition regime. Proceedings of the Combustion Institute, 2009, 32, 1887-1893.	2.4	105
50	Absorption Spectroscopy Measurements in Optically Dense Explosive Fireballs Using a Modeless Broadband Dye Laser. Applied Spectroscopy, 2009, 63, 1075-1080.	1.2	33
51	Size Distribution Effects in Heterogeneous Shock Tube Burntime Experiments. , 2009, , .		2
52	The Presence of Gas Phase Species in Micro- and Nano-Aluminum Combustion. , 2009, , .		0
53	The Emissivity of Micro- and Nano- Particles in Non-Reacting Environments. , 2009, , .		1
54	Growth of nanodiamond/carbon-nanotube composites with hot filament chemical vapor deposition. Diamond and Related Materials, 2008, 17, 79-83.	1.8	40

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55	Combustion of Aluminum Particles in the Transition Regime Between the Diffusion and Kinetic Limits. , 2008, , .		3
56	Control of the Shear Layer Above a Supersonic Cavity Using Energy Deposition. AIAA Journal, 2008, 46, 2987-2997.	1.5	34
57	Decomposition of Aluminum Hydride Under Solid Rocket Motor Conditions. Journal of Propulsion and Power, 2007, 23, 457-464.	1.3	46
58	Combustion of 5-micron Aluminum Particles in High Temperature, High Pressure, Water-Vapor Environments. , 2007, , .		3
59	The effect of ambient pressure on laser-induced plasmas in air. Optics and Lasers in Engineering, 2007, 45, 27-35.	2.0	116
60	Evidence for the transition from the diffusion-limit in aluminum particle combustion. Proceedings of the Combustion Institute, 2007, 31, 2021-2028.	2.4	190
61	Emission spectroscopy of flame fronts in aluminum suspensions. Proceedings of the Combustion Institute, 2007, 31, 2011-2019.	2.4	104
62	REFLECTED SHOCK IGNITION AND COMBUSTION OF ALUMINUM AND NANOCOMPOSITE THERMITE POWDERS. Combustion Science and Technology, 2007, 179, 457-476.	1.2	58
63	Modeling the Combustion of Nano-Sized Aluminum Particles. , 2006, , .		9
64	Shock Tube Measurements of Combustion of Nano-Aluminum. , 2006, , .		7
65	Combustion of nanoaluminum at elevated pressure and temperature behind reflected shock waves. Combustion and Flame, 2006, 145, 703-713.	2.8	209
66	Synthesis of tungsten oxide (WO3) nanorods using carbon nanotubes as templates by hot filament chemical vapor deposition. Materials Letters, 2006, 60, 771-774.	1.3	48
67	Hydrogen synthesis via combustion of fuel-rich natural gas/air mixtures at elevated pressure. International Journal of Hydrogen Energy, 2005, 30, 893-902.	3.8	23
68	OH CONCENTRATION PROFILES OVER ALUMINA, QUARTZ, AND PLATINUM SURFACES USING LASER-INDUCED FLUORESCENCE SPECTROSCOPY IN LOW-PRESSURE HYDROGEN/OXYGEN FLAMES. Combustion Science and Technology, 2005, 177, 793-817.	1.2	25
69	Oxidizer and Pressure Effects on the Combustion of 10-micron Aluminum Particles. Journal of Propulsion and Power, 2005, 21, 577-582.	1.3	107
70	Temporal and Spatial Evolution of a Laser Spark in Air. AIAA Journal, 2005, 43, 1984-1994.	1.5	127
71	TEMPERATURE MEASUREMENTS OF ALUMINUM PARTICLES BURNING IN CARBON DIOXIDE. Combustion Science and Technology, 2005, 177, 485-511.	1.2	290
72	Aluminum nitride emission from a laser-induced plasma in a dispersed aerosol. Journal of Applied Physics, 2005, 98, 053301.	1.1	6

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73	Temporal and Spatial Evolution of the Thermal Structure of a Laser Spark in Air. , 2005, , .		12
74	The Combustion Characteristics of 10-Micron Aluminum Particles at Elevated Temperature and Pressure. , 2005, , .		1
75	Numerical Study of Mixed Convection Flow in an Impinging Jet CVD Reactor for Atmospheric Pressure Deposition of Thin Films. Journal of Heat Transfer, 2004, 126, 764-775.	1.2	17
76	Hydroxyl radical concentration measurements near the deposition substrate in low-pressure diamond-forming flames. Combustion and Flame, 2004, 138, 285-294.	2.8	8
77	Fluid flow and transport processes in a large area atmospheric pressure stagnation flow CVD reactor for deposition of thin films. International Journal of Heat and Mass Transfer, 2004, 47, 4979-4994.	2.5	27
78	Parametric effects on thin film growth and uniformity in an atmospheric pressure impinging jet CVD reactor. Journal of Crystal Growth, 2004, 267, 22-34.	0.7	30
79	Combustion Characteristics of Aluminum Hydride at Elevated Pressure and Temperature. Journal of Propulsion and Power, 2004, 20, 427-431.	1.3	76
80	A Review of the Spectroscopy of Gas-phase Flow: The Molecules and Modern Methods. , 2004, , .		0
81	Laser-induced-fluorescence detection of SnO in low-pressure particle-synthesis flames. Applied Physics B: Lasers and Optics, 2003, 77, 455-461.	1.1	7
82	An Assessment of Inâ€Person and Remotely Operated Laboratories. Journal of Engineering Education, 2003, 92, 57-64.	1.9	83
83	Control of Thin Film Growth in Chemical Vapor Deposition Manufacturing Systems: A Feasibility Study. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 715-724.	1.3	16
84	The Effects of Temperature Jump on CVD Modeling. Chemical Vapor Deposition, 2002, 8, 205-212.	1.4	2
85	Temperature profile measurements in the near-substrate region of low-pressure diamond-forming flames. Combustion and Flame, 2002, 130, 261-276.	2.8	16
86	AlO VIBRATIONAL TEMPERATURE MEASUREMENTS FROM BURNING ALUMINUM PARTICLES AT ELEVATED PRESSURE. Combustion Science and Technology, 2001, 172, 97-107.	1.2	11
87	Formation and consumption of SiO in powder synthesis flames. Combustion and Flame, 2001, 124, 702-711.	2.8	26
88	Catalytic removal of NO from post-flame gases in low pressure stagnation-point flames over platinum. Combustion and Flame, 2001, 125, 931-941.	2.8	2
89	Destruction of NO during Catalytic Combustion on Platinum and Palladium. Combustion Science and Technology, 2001, 165, 249-266.	1.2	1
90	Molecular filtered Rayleigh scattering applied to combustion. Measurement Science and Technology, 2001, 12, 452-466.	1.4	107

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91	Detection of AlO and TiO by Laser-Induced Fluorescence in Powder Synthesis Flames. Combustion Science and Technology, 2000, 157, 129-139.	1.2	14
92	Validation of Surface Chemistry Models Using Low Pressure Stagnation-Point Flames: Measurements of OH Above Platinum Surfaces. Combustion Science and Technology, 2000, 159, 147-168.	1.2	7
93	Molecular Filtered Rayleigh Scattering applied to combustion and turbulence. , 1999, , .		7
94	Synthesis of oxide nanoparticles in low pressure flames. Scripta Materialia, 1999, 11, 149-158.	0.5	96
95	Particle size control during flat flame synthesis of nanophase oxide powders. Scripta Materialia, 1999, 12, 253-258.	0.5	4
96	On nanoparticle aggregation during vapor phase synthesis. Scripta Materialia, 1999, 11, 545-552.	0.5	65
97	Thermal stability of potassium carbonate near its melting point. Thermochimica Acta, 1998, 316, 1-9.	1.2	122
98	Scalable high-rate production of non-agglomerated nanopowders in low pressure flames. Materials Letters, 1998, 34, 148-153.	1.3	36
99	Flame Emission Spectroscopy for Equivalence Ratio Monitoring. Applied Spectroscopy, 1998, 52, 658-662.	1.2	34
100	Diagnostics and Modeling of Nanopowder Synthesis in Low Pressure Flames. Journal of Materials Research, 1998, 13, 2572-2579.	1.2	25
101	Lowâ€Pressure Flame Deposition of Nanostructured Oxide Films. Journal of the American Ceramic Society, 1998, 81, 2753-2756.	1.9	13
102	Two-Dimensional Temperature Field Measurements Using a Molecular Filter Based Technique. Combustion Science and Technology, 1997, 125, 351-369.	1.2	38
103	Flame Temperature Predictions and Comparison with Experiment in High Flow Rate, Fuel-Rich Acetylene/Oxygen Flames. Combustion Science and Technology, 1997, 122, 383-398.	1.2	14
104	High rate synthesis of nanophase materials. Scripta Materialia, 1997, 9, 101-104.	0.5	47
105	Diagnostics and modeling of strained fuel-rich acetylene/oxygen flames used for diamond deposition. Combustion and Flame, 1996, 105, 321-331.	2.8	32
106	<title>Optical detection of CH3 during diamond chemical vapor deposition</title>. , 1994, 2124, 292.		1
107	Diamond growth by methane injection into hydrogen-oxygen flames. Diamond and Related Materials, 1993, 2, 169-173.	1.8	3
108	Large-area diamond film growth in a low-pressure flame. Materials Letters, 1993, 18, 119-122.	1.3	27

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109	Diamond growth in a novel low pressure flame. Applied Physics Letters, 1992, 60, 2695-2696.	1.5	12
110	Diamond synthesis in a low-pressure flat flame. Thin Solid Films, 1992, 212, 122-126.	0.8	31