Igor V Novosselov

List of Publications by Year
in descending order

72 papers	1,275 citations
361045 20 h-index	476904 29 g-index
79 all docs	79 docs citations
79 times ranked	1064 citing authors

#	Article	IF	Citations
1	Network of low-cost air quality sensors for monitoring indoor, outdoor, and personal PM2.5 exposure in Seattle during the 2020 wildfire season. Atmospheric Environment, 2022, 285, 119244.	1.9	14
2	Synthesis of metal-organic framework HKUST-1 via tunable continuous flow supercritical carbon dioxide reactor. Chemical Engineering Journal, 2022, 450, 138053.	6.6	3
3	Drag, lift, and torque on a prolate spheroid resting on a smooth surface in a linear shear flow. Powder Technology, 2021, 377, 958-965.	2.1	16
4	Empirical relations for discharge current and momentum injection in dielectric barrier discharge plasma actuators. Journal Physics D: Applied Physics, 2021, 54, 245204.	1.3	7
5	Characterization of Inkjet-Printed Digital Microfluidics Devices. Sensors, 2021, 21, 3064.	2.1	3
6	NNH mechanism in low-NOx hydrogen combustion: Experimental and numerical analysis of formation pathways. Fuel, 2021, 292, 120186.	3.4	18
7	Solid-phase excitation-emission matrix spectroscopy for chemical analysis of combustion aerosols. PLoS ONE, 2021, 16, e0251664.	1.1	1
8	Methodology for Addressing Infectious Aerosol Persistence in Real-Time Using Sensor Network. Sensors, 2021, 21, 3928.	2.1	12
9	Design of a Small-Scale Supercritical Water Oxidation Reactor. Part II: Numerical Modeling. Industrial & Engineering Chemistry Research, 2021, 60, 11458-11469.	1.8	8
10	Design of a Small-Scale Supercritical Water Oxidation Reactor. Part I: Experimental Characterization. Industrial & Engineering Chemistry Research, 2021, 60, 11450-11457.	1.8	7
11	Aerodynamic resuspension and contact removal of energetic particles from smooth, rough, and fibrous surfaces. Talanta, 2021, 231, 122356.	2.9	13
12	Source apportionment of environmental combustion sources using excitation emission matrix fluorescence spectroscopy and machine learning. Atmospheric Environment, 2021, 259, 118501.	1.9	6
13	Miniaturizing Wet Scrubbers for Aerosolized Droplet Capture. Analytical Chemistry, 2021, 93, 11433-11441.	3.2	3
14	Sparse nonlinear models of chaotic electroconvection. Royal Society Open Science, 2021, 8, 202367.	1.1	26
15	Bridging the gap â€" University, startup, and industry partnership to destroy per- and polyfluoroalkyl substance (PFAS) foreverÂchemicals. IScience, 2021, 24, 102904.	1.9	0
16	Destruction of perfluorooctanesulfonate (PFOS) in a batch supercritical water oxidation reactor. Chemosphere, 2021, 279, 130834.	4.2	39
17	Trace explosives sampling for security applications (TESSA) study: Evaluation of procedures and methodology for contact sampling efficiency. Talanta, 2021, 234, 122633.	2.9	6
18	Assessing the value of complex refractive index and particle density for calibration of low-cost particle matter sensor for size-resolved particle count and PM2.5 measurements. PLoS ONE, 2021, 16, e0259745.	1.1	10

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19	Excitation emission matrix fluorescence spectroscopy for combustion generated particulate matter source identification. Atmospheric Environment, 2020, 220, 117065.	1.9	14
20	Nanostructure transition of young soot aggregates to mature soot aggregates in diluted diffusion flames. Carbon, 2020, 159, 255-265.	5.4	36
21	Wall jet similarity of impinging planar underexpanded jets. International Journal of Heat and Fluid Flow, 2020, 81, 108516.	1.1	13
22	Analytical model for electrohydrodynamic thrust. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200220.	1.0	11
23	Hydrolysis of Dimethyl Methylphosphonate (DMMP) in Hot-Compressed Water. Journal of Physical Chemistry A, 2020, 124, 8383-8389.	1.1	11
24	Excitation–Emission Matrix Spectroscopy for Analysis of Chemical Composition of Combustion Generated Particulate Matter. Environmental Science & Technology, 2020, 54, 8198-8209.	4.6	27
25	Partial Oxidation of Ethanol in Supercritical Water. Industrial & Engineering Chemistry Research, 2020, 59, 9900-9911.	1.8	9
26	Behavior of ultrafine particles in electro-hydrodynamic flow induced by corona discharge. Journal of Aerosol Science, 2020, 148, 105587.	1.8	18
27	Scalable Continuous Flow Metal–Organic Framework (MOF) Synthesis Using Supercritical CO_2. ACS Sustainable Chemistry and Engineering, 2020, 8, 9680-9689.	3.2	34
28	DietSensor: Automatic Dietary Intake Measurement Using Mobile 3D Scanning Sensor for Diabetic Patients. Sensors, 2020, 20, 3380.	2.1	10
29	Three-dimensional electroconvective vortices in cross flow. Physical Review E, 2020, 101, 033103.	0.8	18
30	Gasification Pathways and Reaction Mechanisms of Primary Alcohols in Supercritical Water. ACS Sustainable Chemistry and Engineering, 2020, 8, 4598-4605.	3.2	24
31	Raman spectroscopic data from Formic Acid Decomposition in subcritical and supercritical water. Data in Brief, 2020, 29, 105312.	0.5	14
32	Molecular Composition and the Optical Properties of Brown Carbon Generated by the Ethane Flame. ACS Earth and Space Chemistry, 2020, 4, 1090-1103.	1.2	24
33	A laser-microfabricated electrohydrodynamic thruster for centimeter-scale aerial robots. PLoS ONE, 2020, 15, e0231362.	1.1	13
34	Two relaxation time lattice Boltzmann method coupled to fast Fourier transform Poisson solver: Application to electroconvective flow. Journal of Computational Physics, 2019, 397, 108830.	1.9	40
35	Experimental study of aerodynamic resuspension of RDX residue. Aerosol Science and Technology, 2019, 53, 549-561.	1.5	13
36	Supercritical water gasification: practical design strategies and operational challenges for lab-scale, continuous flow reactors. Heliyon, 2019, 5, e01269.	1.4	59

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37	Polyacrylic acid coated carbon nanotube–paper composites for humidity and moisture sensing. Journal of Materials Chemistry C, 2019, 7, 5374-5380.	2.7	22
38	Electrostatic capillary collector for in-situ spectroscopic analysis of aerosols. Aerosol Science and Technology, 2019, 53, 688-700.	1.5	2
39	Numerical, wind-tunnel, and atmospheric evaluation of a turbulent ground-based inlet sampling system. Aerosol Science and Technology, 2019, 53, 712-727.	1.5	6
40	Characterization of adhesion force in aerodynamic particle resuspension. Journal of Aerosol Science, 2019, 128, 89-98.	1.8	16
41	Soot morphology and nanostructure in complex flame flow patterns via secondary particle surface growth. Fuel, 2019, 245, 447-457.	3.4	20
42	Kinetics of formic acid decomposition in subcritical and supercritical water – a Raman spectroscopic study. International Journal of Hydrogen Energy, 2019, 44, 31745-31756.	3.8	23
43	Prevention of lean flame blowout using a predictive chemical reactor network control. Fuel, 2019, 236, 583-588.	3.4	24
44	Numerical analysis of electroconvection in cross-flow with unipolar charge injection. Physical Review Fluids, 2019, 4, .	1.0	23
45	Supercritical Water Gasification of Ethanol for Fuel Gas Production. , 2019, , .		1
46	Review of Gasification of Organic Compounds in Continuous-Flow, Supercritical Water Reactors. Industrial & Engineering Chemistry Research, 2018, 57, 3471-3481.	1.8	35
47	Design and optimization of a compact low-cost optical particle sizer. Journal of Aerosol Science, 2018, 119, 1-12.	1.8	23
48	Improvement of the Bag-Mediated Filtration System for Sampling Wastewater and Wastewater-Impacted Waters. Food and Environmental Virology, 2018, 10, 72-82.	1.5	22
49	Model-Based Approach for Combustion Monitoring Using Real-Time Chemical Reactor Network. Journal of Combustion, 2018, 2018, 1-12.	0.5	3
50	Analytical model of electro-hydrodynamic flow in corona discharge. Physics of Plasmas, 2018, 25, 083507.	0.7	35
51	Nanoink bridge-induced capillary pen printing for chemical sensors. Nanotechnology, 2018, 29, 335304.	1.3	12
52	Damkohler Number Analysis in Lean Blow-Out of Toroidal Jet Stirred Reactor. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	0.5	13
53	Evaluation of micro-well collector for capture and analysis of aerosolized Bacillus subtilis spores. PLoS ONE, 2018, 13, e0197783.	1.1	9
54	Real-time prediction of lean blowout using chemical reactor network. Fuel, 2018, 234, 797-808.	3.4	33

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55	Experimental and numerical investigation of electrohydrodynamic flow in a point-to-ring corona discharge. Physical Review Fluids, 2018, 3, .	1.0	29
56	Usability of a Personal Air Pollution Monitor: Design-Feedback Iterative Cycle Study. JMIR MHealth and UHealth, 2018, 6, e12023.	1.8	10
57	Design and evaluation of an aerodynamic focusing micro-well aerosol collector. Aerosol Science and Technology, 2017, 51, 1016-1026.	1.5	16
58	Nondimensional Parameter for Characterization of Wall Shear Stress From Underexpanded Axisymmetric Impinging Jets. Journal of Fluids Engineering, Transactions of the ASME, 2017, 139, .	0.8	14
59	Development of an elution device for ViroCap virus filters. Environmental Monitoring and Assessment, 2017, 189, 574.	1.3	9
60	NOx Behavior for Lean-Premixed Combustion of Alternative Gaseous Fuels. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	0.5	6
61	Effects of Composition on the Flame Stabilization of Alternative Aviation Fuels in a Toroidal Well Stirred Reactor. , 2015, , .		2
62	Laboratory Evaluation of the Shinyei PPD42NS Low-Cost Particulate Matter Sensor. PLoS ONE, 2015, 10, e0137789.	1.1	96
63	Trapping and aerogelation of nanoparticles in negative gravity hydrocarbon flames. Applied Physics Letters, 2014, 104, 243103.	1.5	17
64	Rectangular Slit Atmospheric Pressure Aerodynamic Lens Aerosol Concentrator. Aerosol Science and Technology, 2014, 48, 163-172.	1.5	13
65	Design and Performance of a Low-Cost Micro-Channel Aerosol Collector. Aerosol Science and Technology, 2014, 48, 822-830.	1.5	15
66	Laboratory Evaluation of Low-Cost, Lightweight PM2.5 Exposure Monitors. ISEE Conference Abstracts, 2014, 2014, 2298.	0.0	4
67	A Skeletal Mechanism for the Reactive Flow Simulation of Methane Combustion. , 2013, , .		8
68	Characterizing the Mechanism of Lean Blowout for a Recirculation-Stabilized Premixed Hydrogen Flame. , 2012, , .		9
69	Removal Rates of Explosive Particles From a Surface by Impingement of a Gas Jet. Aerosol Science and Technology, 2012, 46, 148-155.	1.5	27
70	Experimental and Numerical Study of NOx Formation From the Lean Premixed Combustion of CH4 Mixed With CO2 and N2. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	35
71	Development and Application of an Eight-Step Global Mechanism for CFD and CRN Simulations of Lean-Premixed Combustors. Journal of Engineering for Gas Turbines and Power, 2008, 130, .	0.5	36
72	Gasification Kinetics in Continuous Supercritical Water Reactors. , 0, , .		0