

Igor V Novosselov

List of Publications by Year in descending order

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Version: 2024-02-01

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	Laboratory Evaluation of the Shinyei PPD42NS Low-Cost Particulate Matter Sensor. PLoS ONE, 2015, 10, e0137789.	1.1	96
2	Supercritical water gasification: practical design strategies and operational challenges for lab-scale, continuous flow reactors. Heliyon, 2019, 5, e01269.	1.4	59
3	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
4	Destruction of perfluorooctanesulfonate (PFOS) in a batch supercritical water oxidation reactor. Chemosphere, 2021, 279, 130834.	4.2	39
5	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
6	Nanostructure transition of young soot aggregates to mature soot aggregates in diluted diffusion flames. Carbon, 2020, 159, 255-265.	5.4	36
7	Experimental and Numerical Study of NO _x Formation From the Lean Premixed Combustion of CH ₄ Mixed With CO ₂ and N ₂ . Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	35
8	Review of Gasification of Organic Compounds in Continuous-Flow, Supercritical Water Reactors. Industrial & Engineering Chemistry Research, 2018, 57, 3471-3481.	1.8	35
9	Analytical model of electro-hydrodynamic flow in corona discharge. Physics of Plasmas, 2018, 25, 083507.	0.7	35
10	Scalable Continuous Flow Metal-Organic Framework (MOF) Synthesis Using Supercritical CO ₂ . ACS Sustainable Chemistry and Engineering, 2020, 8, 9680-9689.	3.2	34
11	Real-time prediction of lean blowout using chemical reactor network. Fuel, 2018, 234, 797-808.	3.4	33
12	Experimental and numerical investigation of electrohydrodynamic flow in a point-to-ring corona discharge. Physical Review Fluids, 2018, 3, .	1.0	29
13	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
14	Excitation-Emission Matrix Spectroscopy for Analysis of Chemical Composition of Combustion Generated Particulate Matter. Environmental Science & Technology, 2020, 54, 8198-8209.	4.6	27
15	Sparse nonlinear models of chaotic electroconvection. Royal Society Open Science, 2021, 8, 202367.	1.1	26
16	Prevention of lean flame blowout using a predictive chemical reactor network control. Fuel, 2019, 236, 583-588.	3.4	24
17	Gasification Pathways and Reaction Mechanisms of Primary Alcohols in Supercritical Water. ACS Sustainable Chemistry and Engineering, 2020, 8, 4598-4605.	3.2	24
18	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

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19	Design and optimization of a compact low-cost optical particle sizer. <i>Journal of Aerosol Science</i> , 2018, 119, 1-12.	1.8	23
20	Kinetics of formic acid decomposition in subcritical and supercritical water – a Raman spectroscopic study. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 31745-31756.	3.8	23
21	Numerical analysis of electroconvection in cross-flow with unipolar charge injection. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	23
22	Improvement of the Bag-Mediated Filtration System for Sampling Wastewater and Wastewater-Impacted Waters. <i>Food and Environmental Virology</i> , 2018, 10, 72-82.	1.5	22
23	Polyacrylic acid coated carbon nanotube–paper composites for humidity and moisture sensing. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5374-5380.	2.7	22
24	Soot morphology and nanostructure in complex flame flow patterns via secondary particle surface growth. <i>Fuel</i> , 2019, 245, 447-457.	3.4	20
25	Behavior of ultrafine particles in electro-hydrodynamic flow induced by corona discharge. <i>Journal of Aerosol Science</i> , 2020, 148, 105587.	1.8	18
26	Three-dimensional electroconvective vortices in cross flow. <i>Physical Review E</i> , 2020, 101, 033103.	0.8	18
27	NNH mechanism in low-NOx hydrogen combustion: Experimental and numerical analysis of formation pathways. <i>Fuel</i> , 2021, 292, 120186.	3.4	18
28	Trapping and aerogelation of nanoparticles in negative gravity hydrocarbon flames. <i>Applied Physics Letters</i> , 2014, 104, 243103.	1.5	17
29	Design and evaluation of an aerodynamic focusing micro-well aerosol collector. <i>Aerosol Science and Technology</i> , 2017, 51, 1016-1026.	1.5	16
30	Characterization of adhesion force in aerodynamic particle resuspension. <i>Journal of Aerosol Science</i> , 2019, 128, 89-98.	1.8	16
31	Drag, lift, and torque on a prolate spheroid resting on a smooth surface in a linear shear flow. <i>Powder Technology</i> , 2021, 377, 958-965.	2.1	16
32	Design and Performance of a Low-Cost Micro-Channel Aerosol Collector. <i>Aerosol Science and Technology</i> , 2014, 48, 822-830.	1.5	15
33	Nondimensional Parameter for Characterization of Wall Shear Stress From Underexpanded Axisymmetric Impinging Jets. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2017, 139, .	0.8	14
34	Excitation emission matrix fluorescence spectroscopy for combustion generated particulate matter source identification. <i>Atmospheric Environment</i> , 2020, 220, 117065.	1.9	14
35	Raman spectroscopic data from Formic Acid Decomposition in subcritical and supercritical water. <i>Data in Brief</i> , 2020, 29, 105312.	0.5	14
36	Network of low-cost air quality sensors for monitoring indoor, outdoor, and personal PM2.5 exposure in Seattle during the 2020 wildfire season. <i>Atmospheric Environment</i> , 2022, 285, 119244.	1.9	14

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37	Rectangular Slit Atmospheric Pressure Aerodynamic Lens Aerosol Concentrator. <i>Aerosol Science and Technology</i> , 2014, 48, 163-172.	1.5	13
38	Damkohler Number Analysis in Lean Blow-Out of Toroidal Jet Stirred Reactor. <i>Journal of Engineering for Gas Turbines and Power</i> , 2018, 140, .	0.5	13
39	Experimental study of aerodynamic resuspension of RDX residue. <i>Aerosol Science and Technology</i> , 2019, 53, 549-561.	1.5	13
40	Wall jet similarity of impinging planar underexpanded jets. <i>International Journal of Heat and Fluid Flow</i> , 2020, 81, 108516.	1.1	13
41	A laser-microfabricated electrohydrodynamic thruster for centimeter-scale aerial robots. <i>PLoS ONE</i> , 2020, 15, e0231362.	1.1	13
42	Aerodynamic resuspension and contact removal of energetic particles from smooth, rough, and fibrous surfaces. <i>Talanta</i> , 2021, 231, 122356.	2.9	13
43	Nanoink bridge-induced capillary pen printing for chemical sensors. <i>Nanotechnology</i> , 2018, 29, 335304.	1.3	12
44	Methodology for Addressing Infectious Aerosol Persistence in Real-Time Using Sensor Network. <i>Sensors</i> , 2021, 21, 3928.	2.1	12
45	Analytical model for electrohydrodynamic thrust. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20200220.	1.0	11
46	Hydrolysis of Dimethyl Methylphosphonate (DMMP) in Hot-Compressed Water. <i>Journal of Physical Chemistry A</i> , 2020, 124, 8383-8389.	1.1	11
47	DietSensor: Automatic Dietary Intake Measurement Using Mobile 3D Scanning Sensor for Diabetic Patients. <i>Sensors</i> , 2020, 20, 3380.	2.1	10
48	Usability of a Personal Air Pollution Monitor: Design-Feedback Iterative Cycle Study. <i>JMIR MHealth and UHealth</i> , 2018, 6, e12023.	1.8	10
49	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. <i>PLoS ONE</i> , 2021, 16, e0259745.	1.1	10
50	Characterizing the Mechanism of Lean Blowout for a Recirculation-Stabilized Premixed Hydrogen Flame. , 2012, , .		9
51	Development of an elution device for ViroCap virus filters. <i>Environmental Monitoring and Assessment</i> , 2017, 189, 574.	1.3	9
52	Evaluation of micro-well collector for capture and analysis of aerosolized <i>Bacillus subtilis</i> spores. <i>PLoS ONE</i> , 2018, 13, e0197783.	1.1	9
53	Partial Oxidation of Ethanol in Supercritical Water. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 9900-9911.	1.8	9
54	A Skeletal Mechanism for the Reactive Flow Simulation of Methane Combustion. , 2013, , .		8

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55	Design of a Small-Scale Supercritical Water Oxidation Reactor. Part II: Numerical Modeling. Industrial & Engineering Chemistry Research, 2021, 60, 11458-11469.	1.8	8
56	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
57	Design of a Small-Scale Supercritical Water Oxidation Reactor. Part I: Experimental Characterization. Industrial & Engineering Chemistry Research, 2021, 60, 11450-11457.	1.8	7
58	NOx Behavior for Lean-Premixed Combustion of Alternative Gaseous Fuels. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	0.5	6
59	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
60	Source apportionment of environmental combustion sources using excitation emission matrix fluorescence spectroscopy and machine learning. Atmospheric Environment, 2021, 259, 118501.	1.9	6
61	Trace explosives sampling for security applications (TESSA) study: Evaluation of procedures and methodology for contact sampling efficiency. Talanta, 2021, 234, 122633.	2.9	6
62	Laboratory Evaluation of Low-Cost, Lightweight PM2.5 Exposure Monitors. ISEE Conference Abstracts, 2014, 2014, 2298.	0.0	4
63	Model-Based Approach for Combustion Monitoring Using Real-Time Chemical Reactor Network. Journal of Combustion, 2018, 2018, 1-12.	0.5	3
64	Characterization of Inkjet-Printed Digital Microfluidics Devices. Sensors, 2021, 21, 3064.	2.1	3
65	Miniaturizing Wet Scrubbers for Aerosolized Droplet Capture. Analytical Chemistry, 2021, 93, 11433-11441.	3.2	3
66	Synthesis of metal-organic framework HKUST-1 via tunable continuous flow supercritical carbon dioxide reactor. Chemical Engineering Journal, 2022, 450, 138053.	6.6	3
67	Effects of Composition on the Flame Stabilization of Alternative Aviation Fuels in a Toroidal Well Stirred Reactor. , 2015, , .		2
68	Electrostatic capillary collector for in-situ spectroscopic analysis of aerosols. Aerosol Science and Technology, 2019, 53, 688-700.	1.5	2
69	Solid-phase excitation-emission matrix spectroscopy for chemical analysis of combustion aerosols. PLoS ONE, 2021, 16, e0251664.	1.1	1
70	Supercritical Water Gasification of Ethanol for Fuel Gas Production. , 2019, , .		1
71	Gasification Kinetics in Continuous Supercritical Water Reactors. , 0, , .		0
72	Bridging the gap “ University, startup, and industry partnership to destroy per- and polyfluoroalkyl substance (PFAS) forever” chemicals. IScience, 2021, 24, 102904.	1.9	0