

Natalia P Ivleva

List of Publications by Year in descending order

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papers

7,325
citations

81900

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114465

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all docs

63
docs citations

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times ranked

7348
citing authors

#	ARTICLE	IF	CITATIONS
1	Are We Speaking the Same Language? Recommendations for a Definition and Categorization Framework for Plastic Debris. <i>Environmental Science & Technology</i> , 2019, 53, 1039-1047.	10.0	1,322
2	Microplastic in Aquatic Ecosystems. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1720-1739.	13.8	554
3	Contamination of beach sediments of a subalpine lake with microplastic particles. <i>Current Biology</i> , 2013, 23, R867-R868.	3.9	519
4	A novel, highly efficient method for the separation and quantification of plastic particles in sediments of aquatic environments. <i>Limnology and Oceanography: Methods</i> , 2012, 10, 524-537.	2.0	468
5	Pigments and plastic in limnetic ecosystems: A qualitative and quantitative study on microparticles of different size classes. <i>Water Research</i> , 2016, 98, 64-74.	11.3	359
6	SERS Detection of Bacteria in Water by in Situ Coating with Ag Nanoparticles. <i>Analytical Chemistry</i> , 2014, 86, 1525-1533.	6.5	346
7	Chemical Analysis of Microplastics and Nanoplastics: Challenges, Advanced Methods, and Perspectives. <i>Chemical Reviews</i> , 2021, 121, 11886-11936.	47.7	309
8	Methods for the analysis of submicrometer- and nanoplastic particles in the environment. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 112, 52-65.	11.4	289
9	Combined use of confocal laser scanning microscopy (CLSM) and Raman microscopy (RM): Investigations on EPS " Matrix. <i>Water Research</i> , 2009, 43, 63-76.	11.3	185
10	Raman microspectroscopy as a tool for microplastic particle analysis. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 109, 214-226.	11.4	185
11	Label-Free in Situ Discrimination of Live and Dead Bacteria by Surface-Enhanced Raman Scattering. <i>Analytical Chemistry</i> , 2015, 87, 6553-6561.	6.5	163
12	Raman Microspectroscopic Analysis of Changes in the Chemical Structure and Reactivity of Soot in a Diesel Exhaust Aftertreatment Model System. <i>Environmental Science & Technology</i> , 2007, 41, 3702-3707.	10.0	156
13	Soot Structure and Reactivity Analysis by Raman Microspectroscopy, Temperature-Programmed Oxidation, and High-Resolution Transmission Electron Microscopy. <i>Journal of Physical Chemistry A</i> , 2009, 113, 13871-13880.	2.5	149
14	Towards a nondestructive chemical characterization of biofilm matrix by Raman microscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 393, 197-206.	3.7	142
15	In Situ Surface-Enhanced Raman Scattering Analysis of Biofilm. <i>Analytical Chemistry</i> , 2008, 80, 8538-8544.	6.5	97
16	Changes in Structure and Reactivity of Soot during Oxidation and Gasification by Oxygen, Studied by Micro-Raman Spectroscopy and Temperature Programmed Oxidation. <i>Aerosol Science and Technology</i> , 2009, 43, 1-8.	3.1	96
17	Analysis of microplastics in drinking water and other clean water samples with micro-Raman and micro-infrared spectroscopy: minimum requirements and best practice guidelines. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 5969-5994.	3.7	94
18	Label-Free in Situ SERS Imaging of Biofilms. <i>Journal of Physical Chemistry B</i> , 2010, 114, 10184-10194.	2.6	93

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19	Nanoplastic Analysis by Online Coupling of Raman Microscopy and Field-Flow Fractionation Enabled by Optical Tweezers. <i>Analytical Chemistry</i> , 2020, 92, 5813-5820.	6.5	91
20	Raman microspectroscopic analysis of fibers in beverages. <i>Analytical Methods</i> , 2016, 8, 5722-5725.	2.7	90
21	Synthesis of Core-Shell Surface-Enhanced Raman Tags for Bioimaging. <i>Analytical Chemistry</i> , 2010, 82, 441-446.	6.5	86
22	Surface-Enhanced Raman Scattering-Based Label-Free Microarray Readout for the Detection of Microorganisms. <i>Analytical Chemistry</i> , 2010, 82, 2766-2772.	6.5	84
23	Expression of Active Subunit of Nitrogenase via Integration into Plant Organelle Genome. <i>PLoS ONE</i> , 2016, 11, e0160951.	2.5	82
24	Reactivity and structure of soot generated at varying biofuel content and engine operating parameters. <i>Combustion and Flame</i> , 2016, 163, 157-169.	5.2	73
25	The origin of the band at around 730 cm^{-1} in the SERS spectra of bacteria: a stable isotope approach. <i>Analyst</i> , 2016, 141, 2874-2878.	3.5	65
26	Impact of Fe Content in Laboratory-Produced Soot Aerosol on its Composition, Structure, and Thermo-Chemical Properties. <i>Aerosol Science and Technology</i> , 2012, 46, 1337-1348.	3.1	62
27	Surface Sensitive Study To Determine the Reactivity of Soot with the Focus on the European Emission Standards IV and VI. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2568-2580.	2.5	60
28	Multiwavelength Raman Microspectroscopy for Rapid Prediction of Soot Oxidation Reactivity. <i>Analytical Chemistry</i> , 2011, 83, 1173-1179.	6.5	59
29	Exploring the Potential of Stable Isotope (Resonance) Raman Microspectroscopy and Surface-Enhanced Raman Scattering for the Analysis of Microorganisms at Single Cell Level. <i>Analytical Chemistry</i> , 2015, 87, 6622-6630.	6.5	59
30	Raman microspectroscopy, surface-enhanced Raman scattering microspectroscopy, and stable-isotope Raman microspectroscopy for biofilm characterization. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 4353-4375.	3.7	58
31	Surface-enhanced Raman scattering detection of bacteria on microarrays at single cell levels using silver nanoparticles. <i>Mikrochimica Acta</i> , 2015, 182, 2259-2266.	5.0	55
32	Towards a receptor-free immobilization and SERS detection of urinary tract infections causative pathogens. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 3051-3058.	3.7	53
33	Simple Generation of Suspensible Secondary Microplastic Reference Particles via Ultrasound Treatment. <i>Frontiers in Chemistry</i> , 2020, 8, 169.	3.6	53
34	Variation in plastic abundance at different lake beach zones - A case study. <i>Science of the Total Environment</i> , 2018, 613-614, 530-537.	8.0	47
35	Photoinduced C^{13} Reactions on Insulators toward Photolithography of Graphene Nanoarchitectures. <i>Journal of the American Chemical Society</i> , 2014, 136, 4651-4658.	13.7	45
36	From the Well to the Bottle: Identifying Sources of Microplastics in Mineral Water. <i>Water (Switzerland)</i> , 2021, 13, 841.	2.7	44

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37	Optimized Surface-enhanced Raman Scattering (SERS) Colloids for the Characterization of Microorganisms. <i>Analytical Sciences</i> , 2010, 26, 761-766.	1.6	43
38	A flow-through microarray cell for the online SERS detection of antibody-captured E. coli bacteria. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 2663-2667.	3.7	42
39	Sorption of Silver Nanoparticles to Environmental and Model Surfaces. <i>Environmental Science & Technology</i> , 2013, 47, 5083-5091.	10.0	42
40	Conductivity for Soot Sensing: Possibilities and Limitations. <i>Analytical Chemistry</i> , 2012, 84, 3586-3592.	6.5	41
41	Microscopic characterization of individual particles from multicomponent ship exhaust. <i>Journal of Environmental Monitoring</i> , 2012, 14, 3101.	2.1	40
42	Surface-enhanced Raman spectroscopy of microorganisms: limitations and applicability on the single-cell level. <i>Analyst</i> , 2019, 144, 943-953.	3.5	37
43	Comment on "Plastic Teabags Release Billions of Microparticles and Nanoparticles into Tea". <i>Environmental Science & Technology</i> , 2020, 54, 14134-14135.	10.0	37
44	Implementation of an open source algorithm for particle recognition and morphological characterisation for microplastic analysis by means of Raman microspectroscopy. <i>Analytical Methods</i> , 2019, 11, 3483-3489.	2.7	34
45	Raman microspectroscopic identification of microplastic particles in freshwater bivalves (Unio Tj ETQq1 1 0.784314 rgBT /Overlock 1). <i>Environmental Science and Pollution Research</i> , 2019, 26, 2007-2012.	5.3	31
46	Internally mixed multicomponent soot: Impact of different salts on soot structure and thermo-chemical properties. <i>Journal of Aerosol Science</i> , 2014, 70, 26-35.	3.8	30
47	TUM-ParticleTyper: A detection and quantification tool for automated analysis of (Microplastic) particles and fibers. <i>PLoS ONE</i> , 2020, 15, e0234766.	2.5	30
48	A multi-technique approach to assess the fate of biochar in soil and to quantify its effect on soil organic matter composition. <i>Organic Geochemistry</i> , 2017, 112, 177-186.	1.8	29
49	Investigation of coatings of natural organic matter on silver nanoparticles under environmentally relevant conditions by surface-enhanced Raman scattering. <i>Science of the Total Environment</i> , 2015, 535, 122-130.	8.0	25
50	Identification and characterization of individual airborne volcanic ash particles by Raman microspectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 9071-9084.	3.7	23
51	Towards a Surface Enhanced Raman Scattering (SERS) spectra database for synthetic organic colourants in cultural heritage. The effect of using different metal substrates on the spectra. <i>Microchemical Journal</i> , 2018, 138, 209-225.	4.5	23
52	Bioaerosol analysis based on a label-free microarray readout method using surface-enhanced Raman scattering. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 5387-5392.	3.7	22
53	Investigation of multiple polymers in a denitrifying sulfur conversion-EBPR system: The structural dynamics and storage states. <i>Water Research</i> , 2019, 156, 179-187.	11.3	17
54	Genetically Controlled Lysosomal Entrapment of Superparamagnetic Ferritin for Multimodal and Multiscale Imaging and Actuation with Low Tissue Attenuation. <i>Advanced Functional Materials</i> , 2018, 28, 1706793.	14.9	15

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55	Production and characterization of long-term stable superparamagnetic iron oxide-shell silica-core nanocomposites. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 442, 497-503.	2.3	13
56	Comment on "exposure to microplastics ($\leq 10 \mu\text{m}$) associated to plastic bottles mineral water consumption: The first quantitative study by Zuccarello et al. [<i>Water Research</i> 157 (2019) 365-371]". <i>Water Research</i> , 2019, 162, 516-517.	11.3	12
57	Which particles to select, and if yes, how many?. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 3625-3641.	3.7	12
58	Stable-isotope Raman microspectroscopy for the analysis of soil organic matter. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 923-931.	3.7	10
59	The effect of clogging on the long-term stability of different carbon fiber brushes in microbial fuel cells for brewery wastewater treatment. <i>Bioresource Technology Reports</i> , 2020, 11, 100420.	2.7	10
60	Extreme Differences in Oxidation States: Synthesis and Structural Analysis of the Germanide Oxometallates $\text{A}_{10}[\text{Ge}_9]_2[\text{WO}_4]$ As Well As $\text{A}_{10}[\text{Ge}_9]_2[\text{W}_1\text{Nb}_4\text{O}_{20}]$ with A = K and Rb Containing $[\text{Ge}_9]^{4-}$ Polyanions. <i>Inorganic Chemistry</i> , 2012, 51, 4058-4065.		
61	Doping graphene via organic solid-solid wetting deposition. <i>Carbon</i> , 2017, 125, 84-92.	10.3	4
62	Nondestructive Chemical Analysis of the Iron-Containing Protein Ferritin Using Raman Microspectroscopy. <i>Applied Spectroscopy</i> , 2020, 74, 193-203.	2.2	2
63	Characterization of coatings on metallic nanoparticles by surface-enhanced Raman scattering (SERS) for environmental purposes. <i>Vadose Zone Journal</i> , 2020, 19, e20076.	2.2	1