

# Vitaly Vodyanoy

## List of Publications by Year in descending order

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112  
papers

3,694  
citations

186265  
28  
h-index

138484  
58  
g-index

115  
all docs

115  
docs citations

115  
times ranked

3176  
citing authors

#	ARTICLE	IF	CITATIONS
1	Noise-induced enhancement of signal transduction across voltage-dependent ion channels. <i>Nature</i> , 1995, 378, 362-364.	27.8	386
2	RGS2 regulates signal transduction in olfactory neurons by attenuating activation of adenylyl cyclase III. <i>Nature</i> , 2001, 409, 1051-1055.	27.8	249
3	Phage display for detection of biological threat agents. <i>Journal of Microbiological Methods</i> , 2003, 53, 253-262.	1.6	236
4	Lytic phage as a specific and selective probe for detection of <i>Staphylococcus aureus</i> —A surface plasmon resonance spectroscopic study. <i>Biosensors and Bioelectronics</i> , 2007, 22, 948-955.	10.1	218
5	Phage as a molecular recognition element in biosensors immobilized by physical adsorption. <i>Biosensors and Bioelectronics</i> , 2007, 22, 986-992.	10.1	176
6	Affinity-selected filamentous bacteriophage as a probe for acoustic wave biodetectors of <i>Salmonella typhimurium</i> . <i>Biosensors and Bioelectronics</i> , 2006, 21, 1434-1442.	10.1	153
7	Rapid and sensitive biosensor for <i>Salmonella</i> . <i>Biosensors and Bioelectronics</i> , 2000, 15, 135-141.	10.1	145
8	Resolution of 90 nm ( $\lambda/5$ ) in an optical transmission microscope with an annular condenser. <i>Optics Letters</i> , 2006, 31, 2855.	3.3	110
9	Landscape phage probes for <i>Salmonella typhimurium</i> . <i>Journal of Microbiological Methods</i> , 2005, 63, 55-72.	1.6	104
10	Specific and selective biosensor for <i>Salmonella</i> and its detection in the environment. <i>Journal of Microbiological Methods</i> , 2003, 53, 273-285.	1.6	82
11	Rapid and Sensitive Detection of <i>Salmonella Typhimurium</i> on Eggshells by Using Wireless Biosensors. <i>Journal of Food Protection</i> , 2012, 75, 631-636.	1.7	76
12	Highly sensitive phage-based biosensor for the detection of $\beta$ -galactosidase. <i>Analytica Chimica Acta</i> , 2007, 589, 166-172.	5.4	62
13	Rapid and sensitive magnetoelastic biosensors for the detection of <i>Salmonella typhimurium</i> in a mixed microbial population. <i>Journal of Microbiological Methods</i> , 2007, 70, 112-118.	1.6	60
14	Amorphous metallic glass biosensors. <i>Intermetallics</i> , 2012, 30, 80-85.	3.9	59
15	Single-channel fluctuations in bimolecular lipid membranes induced by rat olfactory epithelial homogenates. <i>Science</i> , 1983, 220, 717-719.	12.6	56
16	Flash spectroscopic studies of the kinetics of the halorhodopsin photocycle. <i>Biochemistry</i> , 1986, 25, 1465-1470.	2.5	54
17	Exploring the Mechanisms of Electroacupuncture-Induced Analgesia through RNA Sequencing of the Periaqueductal Gray. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2.	4.1	53
18	Functional MRI of the Olfactory System in Conscious Dogs. <i>PLoS ONE</i> , 2014, 9, e86362.	2.5	53

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19	Detection of methicillin-resistant Staphylococcus aureus using novel lytic phage-based magnetoelastic biosensors. <i>Sensors and Actuators B: Chemical</i> , 2015, 210, 129-136.	7.8	51
20	Chiral recognition of odorants (+)- and (-)-carvone by phospholipid monolayers. <i>Journal of the American Chemical Society</i> , 1992, 114, 1404-1405.	13.7	47
21	Efficient decomposition of shrimp shell waste using <i>Bacillus cereus</i> and <i>Exiguobacterium acetylicum</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2009, 36, 1123-1126.	3.0	47
22	Efficacy of <i>Bacillus</i> probiotics in prevention of antibiotic-associated diarrhoea: a randomized, double-blind, placebo-controlled clinical trial. <i>JMM Case Reports</i> , 2014, 1, .	1.3	46
23	Enhancement of Odorant-Induced Responses in Olfactory Receptor Neurons by Zinc Nanoparticles. <i>Chemical Senses</i> , 2009, 34, 547-557.	2.0	43
24	Member of the Ampakine class of memory enhancers prolongs the single channel open time of reconstituted AMPA receptors. <i>Synapse</i> , 2001, 40, 154-158.	1.2	42
25	Electroacupuncture Attenuates Visceral Hypersensitivity by Inhibiting JAK2/STAT3 Signaling Pathway in the Descending Pain Modulation System. <i>Frontiers in Neuroscience</i> , 2017, 11, 644.	2.8	34
26	Real-time optical detection of methicillin-resistant Staphylococcus aureus using lytic phage probes. <i>Biosensors and Bioelectronics</i> , 2008, 24, 151-154.	10.1	33
27	Enhancement of Odor-Induced Activity in the Canine Brain by Zinc Nanoparticles: A Functional MRI Study in Fully Unrestrained Conscious Dogs. <i>Chemical Senses</i> , 2016, 41, 53-67.	2.0	31
28	Solvent-free lipid bimolecular membranes of large surface area. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1982, 687, 189-194.	2.6	30
29	Preservation of bacteria in natural polymers. <i>Journal of Microbiological Methods</i> , 2009, 78, 189-194.	1.6	30
30	Detection and identification of methicillin resistant and sensitive strains of Staphylococcus aureus using tandem measurements. <i>Journal of Microbiological Methods</i> , 2012, 90, 182-191.	1.6	28
31	Peptide biosensor for recognition of cross-species cell surface markers. <i>Journal of Molecular Recognition</i> , 2002, 15, 197-203.	2.1	25
32	Novel Metal Clusters Isolated from Blood Are Lethal to Cancer Cells. <i>Cells Tissues Organs</i> , 2005, 179, 115-124.	2.3	25
33	Olfactory responses to explosives associated odorants are enhanced by zinc nanoparticles. <i>Talanta</i> , 2012, 88, 730-733.	5.5	24
34	Anterior-posterior dissociation of the default mode network in dogs. <i>Brain Structure and Function</i> , 2015, 220, 1063-1076.	2.3	24
35	Alamethicin adsorption to a planar lipid bilayer. <i>Biophysical Journal</i> , 1988, 53, 649-658.	0.5	23
36	Small odorant molecules affect steady state properties of monolayers. <i>Thin Solid Films</i> , 1989, 180, 1-13.	1.8	23

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37	Targeting peptides for microglia identified via phage display. <i>Journal of Neuroimmunology</i> , 2002, 127, 13-21.	2.3	23
38	Bacteriophage biosensors for antibiotic-resistant bacteria. <i>Expert Review of Medical Devices</i> , 2014, 11, 175-186.	2.8	23
39	ATP and GTP are essential for olfactory response. <i>Neuroscience Letters</i> , 1987, 73, 253-258.	2.1	22
40	Interaction of valinomycin and stearic acid in monolayers. <i>Langmuir</i> , 1992, 8, 1984-1987.	3.5	22
41	Zinc nanoparticles interact with olfactory receptor neurons. <i>BioMetals</i> , 2010, 23, 1097-1103.	4.1	22
42	Magnetoelastic biosensor for the detection of <i>Salmonella typhimurium</i> in food products. <i>Sensing and Instrumentation for Food Quality and Safety</i> , 2007, 1, 3-10.	1.5	21
43	Novel methods for storage stability and release of <i>Bacillus</i> spores. <i>Biotechnology Progress</i> , 2008, 24, 1147-1153.	2.6	21
44	FATTY ACID ANILIDES AND THE TOXIC OIL SYNDROME. <i>Lancet, The</i> , 1982, 319, 98-99.	13.7	20
45	Hydrostatic stabilization of solvent-free lipid bimolecular membranes. <i>Journal of Colloid and Interface Science</i> , 1982, 88, 247-257.	9.4	19
46	Recognition of cell-specific binding of phage display derived peptides using an acoustic wave sensor. <i>New Biotechnology</i> , 2002, 18, 269-272.	2.7	19
47	Mitigation of heat stress-related complications by a yeast fermentate product. <i>Journal of Thermal Biology</i> , 2016, 60, 26-32.	2.5	19
48	Effects of heparin on the properties of solubilized and reconstituted rat brain AMPA receptors. <i>Neuroscience Letters</i> , 1996, 217, 179-183.	2.1	18
49	Amphotericin B and Cholesterol in Monolayers and Bilayers. <i>Langmuir</i> , 2003, 19, 858-864.	3.5	18
50	Phage Langmuir monolayers and Langmuir-Blodgett films. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011, 82, 182-189.	5.0	18
51	Primo-Vascular System as Presented by Bong Han Kim. <i>Evidence-based Complementary and Alternative Medicine</i> , 2015, 2015, 1-17.	1.2	18
52	Heparin modulates the single channel kinetics of reconstituted AMPA receptors from rat brain. <i>Synapse</i> , 1999, 31, 203-209.	1.2	17
53	Thermodynamic characteristics of mixed monolayers of amphotericin B and cholesterol. <i>Journal of Colloid and Interface Science</i> , 2004, 276, 60-67.	9.4	17
54	Characterization of Structural Connectivity of the Default Mode Network in Dogs using Diffusion Tensor Imaging. <i>Scientific Reports</i> , 2016, 6, 36851.	3.3	17

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55	Single channel recordings of reconstituted AMPA receptors reveal low and high conductance states. <i>Neuroscience Letters</i> , 1993, 150, 80-84.	2.1	16
56	Structure and function of long-lived olfactory organotypic cultures from postnatal mice. <i>Journal of Neuroscience Research</i> , 2004, 75, 642-653.	2.9	16
57	PEGylation of zinc nanoparticles amplifies their ability to enhance olfactory responses to odorant. <i>PLoS ONE</i> , 2017, 12, e0189273.	2.5	16
58	Phage Fusion Proteins As Bioselective Receptors For Piezoelectric Sensors. <i>ECS Transactions</i> , 2006, 2, 9-25.	0.5	15
59	Oral administration of <i>Bacillus subtilis</i> strain BSB3 can prevent heat stress-related adverse effects in rats. <i>Journal of Applied Microbiology</i> , 2014, 117, 1463-1471.	3.1	15
60	Engineered metal nanoparticles in the sub-nanomolar levels kill cancer cells. <i>International Journal of Nanomedicine</i> , 2016, 11, 1567.	6.7	15
61	Functional Reconstitution of $\pm$ -Amino-3-Hydroxy-5-Methylisoxazole-4-Propionate (AMPA) Receptors from Rat Brain. <i>Journal of Neurochemistry</i> , 1992, 59, 1979-1982.	3.9	14
62	Designing allosteric peptide ligands targeting a globular protein. <i>Biopolymers</i> , 2007, 85, 38-59.	2.4	14
63	Surface properties of two rabbit lung lamellar body preparations with markedly different fatty acid profiles. <i>Lipids and Lipid Metabolism</i> , 1990, 1047, 284-289.	2.6	12
64	Stearic Acid Assisted Complexation of K <sup>+</sup> by Valinomycin in Monolayers. <i>Langmuir</i> , 1994, 10, 1354-1357.	3.5	12
65	Natural biopolymer for preservation of microorganisms during sampling and storage. <i>Journal of Microbiological Methods</i> , 2012, 88, 140-146.	1.6	12
66	Microscopic evaluation of vesicles shed by rat erythrocytes at elevated temperatures. <i>Journal of Thermal Biology</i> , 2013, 38, 487-492.	2.5	12
67	After oxidation, zinc nanoparticles lose their ability to enhance responses to odorants. <i>BioMetals</i> , 2016, 29, 1005-1018.	4.1	12
68	Large-conductance cholesterol- $\alpha$ -amphotericin B channels in reconstituted lipid bilayers. <i>Biosensors and Bioelectronics</i> , 2007, 22, 1359-1367.	10.1	11
69	Odorant Response Kinetics from Cultured Mouse Olfactory Epithelium at Different Ages in vitro. <i>Cells Tissues Organs</i> , 2010, 192, 361-373.	2.3	11
70	Biosensor for Detection of Antibiotic Resistant Staphylococcus Bacteria. <i>Journal of Visualized Experiments</i> , 2013, , e50474.	0.3	11
71	Electroacupuncture intervention of visceral hypersensitivity is involved in PAR-2-activation and CGRP-release in the spinal cord. <i>Scientific Reports</i> , 2020, 10, 11188.	3.3	11
72	Inhibition and enhancement of odorant-induced cAMP accumulation in rat olfactory cilia by antibodies directed against G $\alpha$ s/olf- and G $\alpha$ i-protein subunits. <i>FEBS Letters</i> , 1998, 426, 377-380.	2.8	10

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73	Condensing and Expanding Effects of the Odorants (+)- and (âˆ™)-Carvone on Phospholipid Monolayers. <i>Langmuir</i> , 1998, 14, 679-682.	3.5	10
74	Solvent effects on amphotericin B monolayers. <i>Journal of Colloid and Interface Science</i> , 2004, 269, 499-502.	9.4	10
75	Analytical performance and characterization of antibody immobilized magnetoelastic biosensors. <i>Sensing and Instrumentation for Food Quality and Safety</i> , 2008, 2, 27-33.	1.5	10
76	Thermodynamic evaluation of vesicles shed by erythrocytes at elevated temperatures. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 133, 231-238.	5.0	10
77	High Resolution Light Microscopy of Live Cells. <i>Microscopy Today</i> , 2005, 13, 26-29.	0.3	9
78	Zinc Nanoparticles Enhance Brain Connectivity in the Canine Olfactory Network: Evidence From an fMRI Study in Unrestrained Awake Dogs. <i>Frontiers in Veterinary Science</i> , 2018, 5, 127.	2.2	9
79	Amphotericin B channels in phospholipid membrane-coated nanoporous silicon surfaces: Implications for photovoltaic driving of ions across membranes. <i>Biosensors and Bioelectronics</i> , 2007, 22, 1605-1611.	10.1	8
80	Microscopic evaluation of vesicles shed by erythrocytes at elevated temperatures. <i>Microscopy Research and Technique</i> , 2013, 76, 1163-1170.	2.2	8
81	Cyclic AMP-sensitive ion channels in olfactory receptor cells. <i>Chemical Senses</i> , 1991, 16, 175-180.	2.0	7
82	Neural network architectures for artificial noses. , 2008, , .		7
83	Technical Challenges in Current Primo Vascular System Research and Potential Solutions. <i>JAMS Journal of Acupuncture and Meridian Studies</i> , 2016, 9, 297-306.	0.7	7
84	Functional Reconstitution of Rat Striatal Dopamine Agonist Receptors into Artificial Lipid Bimolecular Membranes. <i>Biophysical Journal</i> , 1984, 45, 22-23.	0.5	6
85	Biopolymers for sample collection, protection, and preservation. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 5397-5406.	3.6	6
86	Current-voltage characteristics of planar lipid membranes with attached Halobacterium cell-envelope vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1986, 858, 92-98.	2.6	5
87	Prevention of Heat Stress Adverse Effects in Rats by <em>Bacillus subtilis</em> Strain. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	5
88	Sanal-Cell Cycle and Primo Vascular System: Regeneration via Sanals. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 413-418.	1.6	5
89	Functional reconstitution of receptors in artificial lipid bilayers. <i>Neuroscience Letters</i> , 1987, 81, 133-138.	2.1	4
90	High-resolution light microscopy of nanoforms. , 2007, , .		4

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91	Endogenous zinc nanoparticles in the rat olfactory epithelium are functionally significant. Scientific Reports, 2020, 10, 18435.	3.3	4
92	Hemmule: A Novel Structure with the Properties of the Stem Cell Niche. International Journal of Molecular Sciences, 2020, 21, 539.	4.1	4
93	PHOTOCHEMICAL BEHAVIOR OF BACTERIORHODOPSIN IMMOBILIZED IN NaCl PELLETS. Photochemistry and Photobiology, 1985, 42, 413-421.	2.5	3
94	Acoustic Wave (TSM) Biosensors: Weighing Bacteria. , 2008, , 255-298.		3
95	Demonstration of Bonghan Corpuscles and Ducts in Rabbits and Rats by Korean Scientists. JAMS Journal of Acupuncture and Meridian Studies, 2009, 2, 169.	0.7	3
96	Furosemide blocks the apomorphine-elicited Cl-channel activity of rat striatal dopamine receptors functionally reconstituted into bimolecular lipid membrane. Neuroscience Letters, 1985, 62, 103-106.	2.1	2
97	Rapid detection of Salmonella typhimurium on fresh spinach leaves using phage-immobilized magnetoelastic biosensors. , 2011, , .		2
98	Characterization of olfactory-enhancing zinc metal nanoparticles. , 2015, , .		2
99	The Role of Endogenous Metal Nanoparticles in Biological Systems. Biomolecules, 2021, 11, 1574.	4.0	2
100	Molecular Sensor Based on Olfactory Transduction. , 1989, , 317-328.		2
101	The detection of Salmonella typhimurium on shell eggs using a phage-based biosensor. Proceedings of SPIE, 2011, , .	0.8	1
102	Nature-inspired magnetoelastic biosentinels for the detection of pathogenic bacteria in stagnant liquids. Proceedings of SPIE, 2015, , .	0.8	1
103	Prebiotics and Probiotics Maintain the Intestinal Barrier Function. FASEB Journal, 2019, 33, 589.7.	0.5	1
104	Characterization of Three Foodborne Bacteria using Hyperspectral Microscopy. FASEB Journal, 2019, 33, lb299.	0.5	1
105	Primo Vascular Node in the Bone Marrow and Longevity. JAMS Journal of Acupuncture and Meridian Studies, 2022, 15, 12-24.	0.7	1
106	Construction of Volume Meshes from Computed Tomography Data. , 2005, 2005, 5168-71.		0
107	Phage Langmuir-Blodgett films for biosensing applications. , 2010, , .		0
108	Passive oil collection device. Environmental Earth Sciences, 2013, 70, 1753-1763.	2.7	0

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109	Lytic Phage in Biosensing. ECS Meeting Abstracts, 2013, , .	0.0	0
110	The Design of Molecular Switches for Biosensors. International Journal of Biosensors & Bioelectronics, 2017, 2, .	0.2	0
111	Isolation and Function of Endogenous Zinc Nanoparticles in the Olfactory Epithelium. FASEB Journal, 2019, 33, 526.3.	0.5	0
112	A Model of Potassium-Assisted Olfactory Sensory Neuron Response to Odorant. FASEB Journal, 2022, 36, .	0.5	0