Eugene P Petrov

List of Publications by Year
in descending order

57 papers	2,665 citations	201674 27 h-index	182427 51 g-index
60 all docs	60 docs citations	60 times ranked	3260 citing authors

#	Article	IF	Citations
1	Spontaneous Emission of Organic Molecules Embedded in a Photonic Crystal. Physical Review Letters, 1998, 81, 77-80.	7.8	282
2	Photonic band gap phenomenon and optical properties of artificial opals. Physical Review E, 1997, 55, 7619-7625.	2.1	220
3	Luminescence Properties of Thiol-Stabilized CdTe Nanocrystals. Journal of Physical Chemistry B, 1999, 103, 10109-10113.	2.6	190
4	Translational Diffusion in Lipid Membranes beyond the Saffman-DelbrÃ¼ck Approximation. Biophysical Journal, 2008, 94, L41-L43.	0.5	160
5	Toward understanding the high PDT efficacy of chlorin e6â€“polyvinylpyrrolidone formulations: Photophysical and molecular aspects of photosensitizerâ€“polymer interaction in vitro. Journal of Photochemistry and Photobiology B: Biology, 2008, 92, 165-174.	3.8	133
6	Temperature-dependent photoluminescence of PbS quantum dots in glass: Evidence of exciton state splitting and carrier trapping. Physical Review B, 2010, 82, .	3.2	111
7	Near-Critical Fluctuations and Cytoskeleton-Assisted Phase Separation Lead to Subdiffusion in Cell Membranes. Biophysical Journal, 2011, 100, 80-89.	0.5	98
8	Diffusion and Segmental Dynamics of Double-Stranded DNA. Physical Review Letters, 2006, 97, 258101.	7.8	97
9	Nanoassemblies Designed from Semiconductor Quantum Dots and Molecular Arrays. Journal of Physical Chemistry B, 2005, 109, 8679-8692.	2.6	94
10	The Role of Lipids in VDAC Oligomerization. Biophysical Journal, 2012, 102, 523-531.	0.5	92
11	Spontaneous emission of dye molecules, semiconductor nanocrystals, and rare-earth ions in opal-based photonic crystals. Journal of Lightwave Technology, 1999, 17, 2128-2137.	4.6	80
12	Switchable domain partitioning and diffusion of DNA origami rods on membranes. Faraday Discussions, 2013, 161, 31-43.	3.2	76
13	Translational and rotational diffusion of micrometer-sized solid domains in lipid membranes. Soft Matter, 2012, 8, 7552.	2.7	62
14	Efficient Electroformation of Supergiant Unilamellar Vesicles Containing Cationic Lipids on ITO-Coated Electrodes. Langmuir, 2012, 28, 5518-5521.	3.5	60
15	Faraday effect of photonic crystals. Applied Physics Letters, 2003, 82, 1538-1540.	3.3	56
16	Cytoskeletal Pinning Controls Phase Separation in Multicomponent Lipid Membranes. Biophysical Journal, 2015, 108, 1104-1113.	0.5	52
17	State of the Art and Novel Trends in Fluorescence Correlation Spectroscopy. Springer Series on Fluorescence, 2008, , 145-197.	0.8	48
18	DNA Condensation at Freestanding Cationic Lipid Bilayers. Physical Review Letters, 2010, 104, 148102.	7.8	48

#	Article	IF	Citations
19	Total Internal Reflection Fluorescence Correlation Spectroscopy: Effects of Lateral Diffusion and Surface-Generated Fluorescence. Biophysical Journal, 2008, 95, 390-399.	0.5	44
20	DNA Origami Nanoneedles on Freestanding Lipid Membranes as a Tool To Observe Isotropicâ€“Nematic Transition in Two Dimensions. Nano Letters, 2015, 15, 649-655.	9.1	44
21	Phase separation and near-critical fluctuations in two-component lipid membranes: Monte Carlo simulations on experimentally relevant scales. New Journal of Physics, 2011, 13, 045019.	2.9	43
22	Modeling DNA condensation on freestanding cationic lipid membranes. Physical Chemistry Chemical Physics, 2014, 16, 2020-2037.	2.8	40
23	Control of Membrane Binding and Diffusion of Cholesteryl-Modified DNA Origami Nanostructures by DNA Spacers. Langmuir, 2018, 34, 14921-14931.	3.5	39
24	Petrovet al.Reply:. Physical Review Letters, 1999, 83, 5402-5402.	7.8	34
25	Quantifying Reversible Surface Binding via Surface-Integrated Fluorescence Correlation Spectroscopy. Nano Letters, 2018, 18, 3185-3192.	9.1	32
26	Effect of anchor positioning on binding and diffusion of elongated 3D DNA nanostructures on lipid membranes. Journal Physics D: Applied Physics, 2016, 49, 194001.	2.8	31
27	Timeâ€resolved spectroscopy of visibly emitting porous silicon. Applied Physics Letters, 1994, 64, 85-87.	3.3	30
28	Fluorescence decay time distribution for polar dye solutions with time-dependent fluorescent shift. Biophysical Chemistry, 1992, 44, 47-60.	2.8	27
29	Title is missing!. Journal of Fluorescence, 1999, 9, 111-121.	2.5	27
30	Spontaneous emission of organic molecules and semiconductor nanocrystals in a photonic crystal. Journal of Luminescence, 2000, 87-89, 152-156.	3.1	27
31	Interaction of cationic 5,10,15,20-tetrakis(4-N-methyl pyridyl) porphyrin with mono-and polynucleotides: A study by picosecond fluorescence spectroscopy. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Ov	0.7	28
32	Photophysical Behavior of mNeonGreen, an Evolutionarily Distant Green Fluorescent Protein. Biophysical Journal, 2018, 114, 2419-2431.	0.5	25
33	Intrinsic photophysics of semiconductor nanocrystals in dielectric media: Formation of surface states. Journal of Luminescence, 2006, 119-120, 412-417.	3.1	24
34	Polarization of porous silicon luminescence. Applied Physics Letters, 1995, 67, 3019-3021.	3.3	23
35	Nanomaterial interactions with biomembranes: Bridging the gap between soft matter models and biological context. Biointerphases, 2018, 13, 028501.	1.6	23
36	Interactions of rod-like particles on responsive elastic sheets. Soft Matter, 2016, 12, 7908-7919.	2.7	22

#	Article	IF	Citations
37	Steady-state and time-resolved spectroscopy of porous silicon. Journal of Luminescence, 1996, 70, 364-376.	3.1	21
38	Time-resolved fluorescence reveals two binding sites of 1,8-ANS in intact human oxyhemoglobin. Journal of Photochemistry and Photobiology B: Biology, 2000, 58, 156-162.	3.8	21
39	Time resolved photoluminescence anisotropy of CdSe/ZnS nanoparticles in toluene at 300 K. Chemical Physics Letters, 2005, 402, 233-238.	2.6	20
40	Conformations and membrane-driven self-organization of rodlike fd virus particles on freestanding lipid membranes. Soft Matter, 2017, 13, 7172-7187.	2.7	18
41	Single molecule fluorescence imaging of the photoinduced conversion and bleaching behavior of the fluorescent protein Kaede. Microscopy Research and Technique, 2006, 69, 210-219.	2.2	13
42	Rac1 activation can generate untemplated, lamellar membrane ruffles. BMC Biology, 2021, 19, 72.	3.8	13
43	A Method for Highâ€Throughput Measurements of Viscosity in Subâ€micrometerâ€Sized Membrane Systems. ChemBioChem, 2020, 21, 836-844.	2.6	12
44	Single DNA molecules on freestanding and supported cationic lipid bilayers: diverse conformational dynamics controlled by the local bilayer properties. Journal Physics D: Applied Physics, 2016, 49, 074001.	2.8	7
45	Comment on The exact expression of the Voigt profile function. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 103, 272-274.	2.3	4
46	Membraneâ€Mediated Selfâ€Organization of Rodâ€Like DNA Origami on Supported Lipid Bilayers. Advanced Materials Interfaces, 2021, 8, 2101094.	3.7	4
47	Fluorescence decay time distribution for polar dye solutions with time-dependent fluorescent shift (Biophysical Chemistry, 44 (1992) 47â€“60). Biophysical Chemistry, 1992, 45, 194-195.	2.8	2
48	Self-Diffusion in Cell Membranes in the Long Time Regime. Applied Magnetic Resonance, 2014, 45, 1389-1403.	1.2	2
49	Investigation of Tetherable Distilbazolium Compounds as Fluorescent Probes in Nanostructured Silica Sol-gel MaterialsÂ¶. Photochemistry and Photobiology, 2005, 81, 898.	2.5	2
50	<title>Photonic crystals for soft x rays</title>. , 2001, , .		1
51	Red-edge excitation effect in intramolecular proton transfer in flavonols. , 2002, , .		1
52	Cytoskeletal Pinning Prevents Large-Scale Phase Separation in Model Membranes. Biophysical Journal, 2013, 104, 252a.	0.5	1
53	Molecular movements in biomembranes. Journal Physics D: Applied Physics, 2017, 50, 060201.	2.8	1
54	Fluorescence decay time distribution analysis reveals two types of binding sites for 1,8-anilinonaphthalene sulfonate in native human oxyhemoglobin. Biochemistry (Moscow), 2001, 66, 390-396.	1.5	0

#	Article	IF	Citations
55	Kinetic description of dioxygen binding to human hemoglobin on the 1-100 ns time scale. , 2002, 4749, 355.		0
56	Lattice-Based Monte Carlo Simulations of Lipid Membranes: Correspondence between Triangular and Square Lattices. Biophysical Journal, 2014, 106, 290a-291a.	0.5	0
57	MEMORY IN BLINKING DYNAMICS OF SILVER NANOPARTICLES. , 2009, , .		0