Sergey V Karpov

List of Publications by Year
in descending order

67	748	516215 16	610482 24
papers	citations	h-index	g-index

68	68	68	628
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonlinear optics of metal fractal clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1990, 17, 283-289.	1.0	64
2	Electromagnetic density of states and absorption of radiation by aggregates of nanospheres with multipole interactions. Physical Review B, 2004, 70, .	1.1	49
3	Local anisotropy and giant enhancement of local electromagnetic fields in fractal aggregates of metal nanoparticles. Physical Review B, 2005, 72, .	1.1	43
4	Titanium nitride as light trapping plasmonic material in silicon solar cell. Optical Materials, 2017, 72, 397-402.	1.7	38
5	Refractory titanium nitride two-dimensional structures with extremely narrow surface lattice resonances at telecommunication wavelengths. Applied Physics Letters, 2017, 111, .	1.5	37
6	Nondecaying surface plasmon polaritons in linear chains of silver nanospheroids. Optics Letters, 2013, 38, 4743.	1.7	32
7	Collective lattice resonances in disordered and quasi-random all-dielectric metasurfaces. Journal of the Optical Society of America B: Optical Physics, 2019, 36, E21.	0.9	28
8	Effects of size polydispersity on the extinction spectra of colloidal nanoparticle aggregates. Physical Review B, 2012, 85, .	1.1	20
9	Surface plasmon polaritons in curved chains of metal nanoparticles. Physical Review B, 2014, 90, .	1.1	20
10	Collective Lattice Resonances in All-Dielectric Nanostructures under Oblique Incidence. Photonics, 2020, 7, 24.	0.9	19
11	Physical Principles of the Photostimulated Aggregation of Metal Sols. Colloid Journal, 2002, 64, 425-442.	0.5	18
12	Suppression of surface plasmon resonance in Au nanoparticles upon transition to the liquid state. Optics Express, 2016, 24, 26851.	1.7	18
13	New ideally absorbing Au plasmonic nanostructures for biomedical applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 187, 54-61.	1.1	18
14	Spectroscopic studies of fractal aggregates of silver nanospheres undergoing local restructuring. Journal of Chemical Physics, 2006, 125, 111101.	1.2	17
15	Optical Spectra of Silver Colloids Within the Framework of Fractal Physics. Colloid Journal, 2000, 62, 699-713.	0.5	16
16	Optodynamic phenomena in aggregates of polydisperse plasmonic nanoparticles. Applied Physics B: Lasers and Optics, 2014, 115, 547-560.	1.1	16
17	Thermal effects in systems of colloidal plasmonic nanoparticles in high-intensity pulsed laser fields [Invited]. Optical Materials Express, 2017, 7, 555.	1.6	16
18	Processes in resonant domains of metal nanoparticle aggregates and optical nonlinearity of aggregates in pulsed laser fields. Applied Physics B: Lasers and Optics, 2009, 97, 163-173.	1.1	14

#	Article	IF	Citations
19	Waveguiding properties of short linear chains of nonspherical metal nanoparticles. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2981.	0.9	14
20	Photochromic reactions in silver nanocomposites with a fractal structure and their comparative characteristics. Technical Physics, 2003, 48, 749-756.	0.2	13
21	Transmission and spectral properties of short optical plasmon waveguides. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 115, 666-674.	0.2	13
22	Overcoming the adverse effects of substrate on the waveguiding properties of plasmonic nanoparticle chains. Journal of Applied Physics, 2016, 119, .	1.1	12
23	Surface plasmon resonances in liquid metal nanoparticles. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	12
24	Non-linear optical properties of vapours of unsaturated hydrocarbons and VUV generation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 2965-2975.	0.6	10
25	Photostimulated aggregation of ultradispersoidal silver particles into fractal clusters. Journal of Physics Condensed Matter, 1993, 5, 7231-7238.	0.7	10
26	Observation of the two-photon photoelectric effect in low-intensity optical fields during photostimulated fractal aggregation of colloidal silver. JETP Letters, 1997, 66, 106-110.	0.4	10
27	Super-efficient laser hyperthermia of malignant cells with core-shell nanoparticles based on alternative plasmonic materials. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 236, 106599.	1.1	10
28	Mode coupling in arrays of Al nanoparticles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 106961.	1.1	10
29	Multipolar Lattice Resonances in Plasmonic Finite-Size Metasurfaces. Photonics, 2021, 8, 109.	0.9	10
30	Preparation of composite films with silver nanoparticles and their fractal aggregates in a polymeric matrix. Russian Journal of Applied Chemistry, 2006, 79, 1639-1642.	0.1	9
31	The origin of anomalous enhancement of electromagnetic fields in fractal aggregates of metal nanoparticles. Colloid Journal, 2007, 69, 159-169.	0.5	9
32	On the possibility of through passage of asteroid bodies across the Earthâ€™s atmosphere. Monthly Notices of the Royal Astronomical Society, 2020, 493, 1344-1351.	1.6	9
33	State-of-art plasmonic photonic crystals based on self-assembled nanostructures. Journal of Materials Chemistry C, 2021, 9, 3368-3383.	2.7	9
34	General principles of the crystallization of nanostructured disperse systems. Colloid Journal, 2009, 71, 313-328.	0.5	8
35	Effect of local environment in resonant domains of polydisperse plasmonic nanoparticle aggregates on optodynamic processes in pulsed laser fields. Chinese Physics B, 2015, 24, 047804.	0.7	8
36	Brownian dynamic of laser cooling and crystallization of electron-ion plasma. Physical Review E, 2009, 80, 056404.	0.8	7

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37	Dynamic changes of optical characteristics of resonant domains inÂmetal nanoparticle aggregates under pulsed laser fields. Applied Physics B: Lasers and Optics, 2011, 102, 65-72.	1.1	7
38	Optimization of photothermal methods for laser hyperthermia of malignant cells using bioconjugates of gold nanoparticles. Colloid Journal, 2016, 78, 435-442.	0.5	7
39	Influence of electrodynamic interactions of particles on absorption spectra of silver sols during their aggregation. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2003, 95, 230-240.	0.2	6
40	Thermal degradation of optical resonances in plasmonic nanoparticles. Nanoscale, 2022, 14, 433-447.	2.8	6
41	Specific features of absorption spectra of fractal-structured silver sols. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2003, 95, 241-247.	0.2	5
42	Simulation of the growth of nanoparticle aggregates reproducing their natural structure in disperse systems. Colloid Journal, 2006, 68, 441-450.	0.5	5
43	Experimental manifestations of the correlation between the local structure of silver nanoparticle aggregates and their absorption spectra. Colloid Journal, 2007, 69, 170-179.	0.5	5
44	Plasmonic Nanoparticle Aggregates in High-Intensity Laser Fields: Effect of Pulse Duration. Plasmonics, 2016, 11, 403-410.	1.8	5
45	Thermal limiting effects in optical plasmonic waveguides. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 191, 1-6.	1.1	5
46	Defects of colloidal crystals. Colloid Journal, 2009, 71, 329-339.	0.5	4
47	Looking for fast optical bursts from FRB121102: Case study for a small telescopes with subâ€second temporal resolution. Astronomische Nachrichten, 2019, 340, 613-617.	0.6	4
48	The study of coherent optical pulsations of the millisecond pulsar PSR J1023+0038 on Russian 6â€m telescope. Astronomische Nachrichten, 2019, 340, 607-612.	0.6	4
49	General principles in formation of monolayer colloidal crystals using the moving meniscus method. Colloid Journal, 2011, 73, 788-800.	0.5	3
50	On coagulation of polydisperse metal nanocolloids and conditions for applicability of the Muller-Smoluchowski theory. Colloid Journal, 2012, 74, 295-304.	0.5	3
51	Temperature dependent elastic repulsion of colloidal nanoparticles with a polymer adsorption layer. Colloid and Polymer Science, 2018, 296, 1689-1697.	1.0	3
52	Effect of defects of plasmon resonance colloidal crystals on their extinction spectra. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 109, 372-378.	0.2	2
53	Restructuring of plasmonic nanoparticle aggregates with arbitrary particle size distribution in pulsed laser fields. Chinese Physics B, 2016, 25, 117806.	0.7	2
54	Thermal effects in systems of colloidal plasmonic nanoparticles in high-intensity pulsed laser fields [Invited]: publisherâ€™s note. Optical Materials Express, 2017, 7, 799.	1.6	2

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55	Spontaneous crystallization of nanocolloids. Doklady Physics, 2009, 54, 51-54.	0.2	1
56	Effect of the surface shape of a large space body on its fragmentation in a planetary atmosphere. Monthly Notices of the Royal Astronomical Society, 2020, 493, 1352-1360.	1.6	1
57	The search for ultraviolet luminous objects in GALEX data. Monthly Notices of the Royal Astronomical Society, 2021, 505, 207-214.	1.6	1
58	The model of resonant domain of metal nanoparticle aggregates in pulsed laser fields. Proceedings of SPIE, 2007, , .	0.8	0
59	Kinetics of the crystallization of nanostructured disperse systems. Colloid Journal, 2009, 71, 340-344.	0.5	0
60	Effect of electron tunneling on the crystallization of nanostructured metal sols. Colloid Journal, 2009, 71, 345-352.	0.5	0
61	Conditions for the synthesis of colloidal crystals by the method of a mobile meniscus. Doklady Physics, 2010, 55, 374-379.	0.2	0
62	Variation of extinction spectra of plasmon resonance colloidal crystals upon structural transitions. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 109, 379-382.	0.2	0
63	Evolution of extinction spectra of plasmon resonance nanocolloids in the process of their crystallization. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 109, 383-391.	0.2	0
64	Variations arising in extinction spectra of nanoparticle aggregates upon deformation during deposition on planar dielectric substrate. Colloid Journal, 2011, 73, 206-215.	0.5	0
65	Evolution of extinction spectra of monolayer plasmon-resonant colloidal crystals in the process of their synthesis by the moving meniscus method. Colloid Journal, 2011, 73, 801-806.	0.5	0
66	The role of the electron tunneling effect in the coagulation kinetics of polydisperse metal nanocolloids. Colloid Journal, 2012, 74, 305-312.	0.5	0
67	Simulation of conditions for fabrication of optical nanowaveguides in the form of chains of spherical metal nanoparticles by electrostatic functionalization of the process substrate. Colloid Journal, 2013, 75, 279-288.	0.5	0