Tatiana Smirnova

List of Publications by Citations

56 papers	608 citations	13 h-index	23 g-index
70 ext. papers	676 ext. citations	1.7 avg, IF	3.51 L-index

#	Paper	IF	Citations
56	Surface modified ZrO2and TiO2nanoparticles embedded in organic photopolymers for highly effective and UV-stable volume holograms. *Nanotechnology*, **2007**, 18, 105704	3.4	87
55	Spatial transfer of matter as a method of holographic recording in photoformers. *Optics Communications*, **2000**, 174, 391-404	2	81
54	Holographic Composites with Gold Nanoparticles: Nanoparticles Promote Polymer Segregation. *Chemistry of Materials*, **2008**, 20, 4619-4627	9.6	55
53	Holographic patterning of luminescent photopolymer nanocomposites. *Materials Science and Engineering C*, **2008**, 28, 28-35	8.3	40
52	Amplified spontaneous emission in polymer-CdSe/ZnS-nanocrystal DFB structures produced by the holographic method. *Nanotechnology*, **2009**, 20, 245707	3.4	38
51	Effective volume holographic structures based on organic–inorganic photopolymer nanocomposites. *Journal of Optics*, **2009**, 11, 024013		38
50	Nonlinear diffraction in gratings based on polymer-dispersed TiO 2 nanoparticles. *Applied Physics B: Lasers and Optics*, **2005**, 80, 947-951	1.9	31
49	The fabrication of periodic polymer/silver nanoparticle structures: in situ reduction of silver nanoparticles from precursor spatially distributed in polymer using holographic exposure. *Nanotechnology*, **2009**, 20, 405301	3.4	29
48	Optical and Nonlinear Properties of Photonic Polymer Nanocomposites and Holographic Gratings Modified with Noble Metal Nanoparticles. *Polymers*, **2020**, 12,	4.5	20
47	Distributed feedback lasing in dye-doped nanocomposite holographic transmission gratings. *Journal of Optics (United Kingdom)*, **2011**, 13, 035709	1.7	18
46	Distributed feedback dye laser holographically induced in improved organic–inorganic photocurable nanocomposites. *Applied Physics B: Lasers and Optics*, **2011**, 103, 907-916	1.9	17
45	Simple and high performance DFB laser based on dye-doped nanocomposite volume gratings. *Laser Physics Letters*, **2014**, 11, 125804	1.5	13
44	Holographic nanocomposites for recording polymer-nanoparticle periodic structures: I. General approach to choice of components of nanocomposites and their holographic properties. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2011**, 110, 129-136	0.7	13
43	Analysis of the diffraction by the gratings generated in the materials with a nonlinear response. *Optik*, **2008**, 119, 236-246	2.5	11
42	Holographic nanocomposites for recording polymer-nanoparticle periodic structures: II. Mechanism of formation of polymer-nanoparticle bulk periodic structure and effect of parameters of forming field on structure efficiency. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2011**, 110, 137-144	0.7	9
41	PPC: self-developing photopolymers for holographic recording **2000**, 4149, 106		9
40	Relief structures in the self-developing photopolymer materials. *Optik*, **2002**, 113, 130-134	2.5	8

39	Efficiency of two-photon absorption in single-frequency and multifrequency laser radiation fields. *Soviet Journal of Quantum Electronics*, **1977**, 7, 621-623		8
38	Polymer distributed feedback dye laser with an external volume Bragg grating inscribed in a nanocomposite by holographic technique. *Journal of the Optical Society of America B: Optical Physics*, **2016**, 33, 202	1.7	6
37	Method of synthesized phase objects for pattern recognition: matched filtering. *Optics Express*, **2012**, 20, 29854-66	3.3	6
36	Photopolymers for holography: interconnection between holographic characteristics and parameters of physical-chemical processes causing recording **1999**,		5
35	Optical Nonlinearity And Holographic Recording Of Stable Periodic Structures In Polymeric Photorefractive Media **1989**,		5
34	Holographic patterning of organic-inorganic photopolymerizable nanocomposites **2009**,		4
33	Effective Values of Variable Components of the Refractive Index upon Nonlinear Recording of Phase Holograms. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2004**, 96, 952-960	0.7	4
32	Thermodynamical and structural aspects of holographic recording in photopolymers **1998**,		4
31	Resonant and Sensing Performance of Volume Waveguide Structures Based on Polymer Nanomaterials. *Nanomaterials*, **2020**, 10,	5.4	4
30	Binary phase masks on self-developing photopolymers: the technique for formation and testing in an optical correlator. *Quantum Electronics*, **2003**, 33, 559-562	1.8	3
29	A mechanism of the relief-phase structure formation in self-developing photopolymers. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2002**, 93, 126-131	0.7	3
28	Dispersion cavities with volume holographic gratings. *Quantum Electronics*, **2001**, 31, 227-230	1.8	3
27	Holographic recording in thick photopolymer films **2000**, 4087, 704		3
26	New self-developing photopolymers for holographic recording in the 500700 nm range. *Journal of Applied Spectroscopy*, **2000**, 67, 34-39	0.7	3
25	Photoformers: materials for holographic recording **1996**,		3
24	Light scattering in holograms written on photopolymerizing compositions. *Journal of Applied Spectroscopy*, **1989**, 51, 728-733	0.7	3
23	Time-Dependent Absorption Spectra of 1D, 2D Plasmonic Structures Obtained by the Ordering of Ag Nanoparticles in Polymer Matrix. *Springer Proceedings in Physics*, **2016**, 131-141	0.2	2
22	Transient Absorption Spectra of Photopolymeric Films with a Periodic Silver-Nanoparticle Substructure. *Journal of Applied Spectroscopy*, **2014**, 81, 782-788	0.7	2

21	Analysis of light wave diffraction and amplification by reflection grating operating in the second-order Bragg regime 1 Approximate theory. *Journal of the Optical Society of America B: Optical Physics*, **2012**, 29, 691	1.7	2
20	Analysis of light wave diffraction and amplification by reflection grating operating in the second-order Bragg regime 2 Reflectivity and spectral characteristics of a grating. *Journal of the Optical Society of America B: Optical Physics*, **2012**, 29, 944	1.7	2
19	Temperature stability and radiation resistance of holographic gratings on photopolymer materials. *Technical Physics*, **1998**, 43, 708-713	0.5	2
18	Poly(ester urethane acrylates) and holographic properties of formulations on their basis. *Polymer Science - Series A*, **2007**, 49, 921-927	1.2	2
17	Kinetic peculiarities of holographic recording in photopolymers **1998**, 3488, 276		2
16	Nonlinear Optical Properties of Polymer Nanocomposites with a Random and Periodic Distribution of Silver Nanoparticles. *Springer Proceedings in Physics*, **2018**, 333-344	0.2	1
15	Development of the Waveguide Photonic Crystal Structures Formed by Distribution of Nanoparticles in Polymer Matrix. *Springer Proceedings in Physics*, **2019**, 73-85	0.2	1
14	Diffractive-Optical Elements via All-Optical Patterning of Photopolymers and Nanocomposites. *Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]*, **2010**, 23, 757-764	0.7	1
13	Characteristics of photopolymer holographic matched filters in a van der Lugt correlator. *Technical Physics*, **2001**, 46, 322-325	0.5	1
12	Characteristics of fourier phase holograms recorded on photopolymers. *Technical Physics*, **2000**, 45, 743-746	0.5	1
11	Influence of spatial coherence of a laser field on the efficiency of two-photon absorption. *Soviet Journal of Quantum Electronics*, **1976**, 6, 23-26		1
10	Diffraction of a finite-cross-section light beam by the grating: Theoretical analysis and experimental verification. *Optik*, **2022**, 252, 168550	2.5	1
9	Two-Dimensional Periodic Structures Recorded in Nanocomposites by Holographic Method: Features of Formation, Applications. *Springer Proceedings in Physics*, **2017**, 293-304	0.2	1
8	Features of the dynamic self-action of light beams during holographic recording in photopolymers. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2002**, 93, 620-625	0.7	
7	The effect of nonlinearity of the recording media response on the properties of thick phase holograms. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2003**, 95, 478-485	0.7	
6	Dispersive resonators with volume holographic gratings. *Technical Physics Letters*, **2001**, 27, 102-103	0.7	
5	Active media for near-infrared polymethine dye lasers. *Soviet Journal of Quantum Electronics*, **1979**, 9, 725-728		
4	*Ukrainian Journal of Physics*, **2018**, 63, 888	0.4	

List of Publications

3	Based on Nanocomposite Resonant Photonic Crystal Structures for Sensing Applications. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2020**, 219-228	0.2
2	Solvent Effect on the Preparation of Silver Nanoparticles in a Photopolymerizable Matrix. *Theoretical and Experimental Chemistry*, **2016**, 52, 291-297	1.3
1	Spectral and Angular Characteristics of the High-Contrast Dielectric Grating under the Resonant Interaction of a Plane Wave and a Gaussian Beam. *Materials*, **2022**, 15, 3529	3.5