

# Tatiana Smirnova

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Diffraction of a finite-cross-section light beam by the grating: Theoretical analysis and experimental verification. <i>Optik</i> , <b>2022</b> , 252, 168550	2.5	1
55	Spectral and Angular Characteristics of the High-Contrast Dielectric Grating under the Resonant Interaction of a Plane Wave and a Gaussian Beam. <i>Materials</i> , <b>2022</b> , 15, 3529	3.5	
54	Optical and Nonlinear Properties of Photonic Polymer Nanocomposites and Holographic Gratings Modified with Noble Metal Nanoparticles. <i>Polymers</i> , <b>2020</b> , 12,	4.5	20
53	Based on Nanocomposite Resonant Photonic Crystal Structures for Sensing Applications. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , <b>2020</b> , 219-228	0.2	
52	Resonant and Sensing Performance of Volume Waveguide Structures Based on Polymer Nanomaterials. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	4
51	Development of the Waveguide Photonic Crystal Structures Formed by Distribution of Nanoparticles in Polymer Matrix. <i>Springer Proceedings in Physics</i> , <b>2019</b> , 73-85	0.2	1
50	Nonlinear Optical Properties of Polymer Nanocomposites with a Random and Periodic Distribution of Silver Nanoparticles. <i>Springer Proceedings in Physics</i> , <b>2018</b> , 333-344	0.2	1
49	 <i>Ukrainian Journal of Physics</i> , <b>2018</b> , 63, 888	0.4	
48	Two-Dimensional Periodic Structures Recorded in Nanocomposites by Holographic Method: Features of Formation, Applications. <i>Springer Proceedings in Physics</i> , <b>2017</b> , 293-304	0.2	1
47	Time-Dependent Absorption Spectra of 1D, 2D Plasmonic Structures Obtained by the Ordering of Ag Nanoparticles in Polymer Matrix. <i>Springer Proceedings in Physics</i> , <b>2016</b> , 131-141	0.2	2
46	Polymer distributed feedback dye laser with an external volume Bragg grating inscribed in a nanocomposite by holographic technique. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2016</b> , 33, 202	1.7	6
45	Solvent Effect on the Preparation of Silver Nanoparticles in a Photopolymerizable Matrix. <i>Theoretical and Experimental Chemistry</i> , <b>2016</b> , 52, 291-297	1.3	
44	Simple and high performance DFB laser based on dye-doped nanocomposite volume gratings. <i>Laser Physics Letters</i> , <b>2014</b> , 11, 125804	1.5	13
43	Transient Absorption Spectra of Photopolymeric Films with a Periodic Silver-Nanoparticle Substructure. <i>Journal of Applied Spectroscopy</i> , <b>2014</b> , 81, 782-788	0.7	2
42	Method of synthesized phase objects for pattern recognition: matched filtering. <i>Optics Express</i> , <b>2012</b> , 20, 29854-66	3.3	6
41	Analysis of light wave diffraction and amplification by reflection grating operating in the second-order Bragg regime 1 Approximate theory. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 691	1.7	2
40	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. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 944	1.7	2

39	Holographic nanocomposites for recording polymer-nanoparticle periodic structures: I. General approach to choice of components of nanocomposites and their holographic properties. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2011</b> , 110, 129-136	0.7	13
38	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. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2011</b> , 110, 137-144	0.7	9
37	Distributed feedback dye laser holographically induced in improved organic-inorganic photocurable nanocomposites. <i>Applied Physics B: Lasers and Optics</i> , <b>2011</b> , 103, 907-916	1.9	17
36	Distributed feedback lasing in dye-doped nanocomposite holographic transmission gratings. <i>Journal of Optics (United Kingdom)</i> , <b>2011</b> , 13, 035709	1.7	18
35	Diffraction-Optical Elements via All-Optical Patterning of Photopolymers and Nanocomposites. <i>Journal of Photopolymer Science and Technology = [Fotopolimna Konwakai Shi]</i> , <b>2010</b> , 23, 757-764	0.7	1
34	Amplified spontaneous emission in polymer-CdSe/ZnS-nanocrystal DFB structures produced by the holographic method. <i>Nanotechnology</i> , <b>2009</b> , 20, 245707	3.4	38
33	The fabrication of periodic polymer/silver nanoparticle structures: in situ reduction of silver nanoparticles from precursor spatially distributed in polymer using holographic exposure. <i>Nanotechnology</i> , <b>2009</b> , 20, 405301	3.4	29
32	Effective volume holographic structures based on organic-inorganic photopolymer nanocomposites. <i>Journal of Optics</i> , <b>2009</b> , 11, 024013		38
31	Holographic patterning of organic-inorganic photopolymerizable nanocomposites <b>2009</b> ,		4
30	Holographic Composites with Gold Nanoparticles: Nanoparticles Promote Polymer Segregation. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4619-4627	9.6	55
29	Analysis of the diffraction by the gratings generated in the materials with a nonlinear response. <i>Optik</i> , <b>2008</b> , 119, 236-246	2.5	11
28	Holographic patterning of luminescent photopolymer nanocomposites. <i>Materials Science and Engineering C</i> , <b>2008</b> , 28, 28-35	8.3	40
27	Poly(ester urethane acrylates) and holographic properties of formulations on their basis. <i>Polymer Science - Series A</i> , <b>2007</b> , 49, 921-927	1.2	2
26	Surface modified ZrO <sub>2</sub> and TiO <sub>2</sub> nanoparticles embedded in organic photopolymers for highly effective and UV-stable volume holograms. <i>Nanotechnology</i> , <b>2007</b> , 18, 105704	3.4	87
25	Nonlinear diffraction in gratings based on polymer-dispersed TiO <sub>2</sub> nanoparticles. <i>Applied Physics B: Lasers and Optics</i> , <b>2005</b> , 80, 947-951	1.9	31
24	Effective Values of Variable Components of the Refractive Index upon Nonlinear Recording of Phase Holograms. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2004</b> , 96, 952-960	0.7	4
23	Binary phase masks on self-developing photopolymers: the technique for formation and testing in an optical correlator. <i>Quantum Electronics</i> , <b>2003</b> , 33, 559-562	1.8	3
22	The effect of nonlinearity of the recording media response on the properties of thick phase holograms. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2003</b> , 95, 478-485	0.7	

21	A mechanism of the relief-phase structure formation in self-developing photopolymers. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2002</b> , 93, 126-131	0.7	3
20	Features of the dynamic self-action of light beams during holographic recording in photopolymers. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2002</b> , 93, 620-625	0.7	
19	Relief structures in the self-developing photopolymer materials. <i>Optik</i> , <b>2002</b> , 113, 130-134	2.5	8
18	Dispersive resonators with volume holographic gratings. <i>Technical Physics Letters</i> , <b>2001</b> , 27, 102-103	0.7	
17	Characteristics of photopolymer holographic matched filters in a van der Lugt correlator. <i>Technical Physics</i> , <b>2001</b> , 46, 322-325	0.5	1
16	Dispersion cavities with volume holographic gratings. <i>Quantum Electronics</i> , <b>2001</b> , 31, 227-230	1.8	3
15	PPC: self-developing photopolymers for holographic recording <b>2000</b> , 4149, 106		9
14	Holographic recording in thick photopolymer films <b>2000</b> , 4087, 704		3
13	Characteristics of fourier phase holograms recorded on photopolymers. <i>Technical Physics</i> , <b>2000</b> , 45, 743-746	0.5	1
12	Spatial transfer of matter as a method of holographic recording in photoformers. <i>Optics Communications</i> , <b>2000</b> , 174, 391-404	2	81
11	New self-developing photopolymers for holographic recording in the 500-700 nm range. <i>Journal of Applied Spectroscopy</i> , <b>2000</b> , 67, 34-39	0.7	3
10	Photopolymers for holography: interconnection between holographic characteristics and parameters of physical-chemical processes causing recording <b>1999</b> ,		5
9	Temperature stability and radiation resistance of holographic gratings on photopolymer materials. <i>Technical Physics</i> , <b>1998</b> , 43, 708-713	0.5	2
8	Kinetic peculiarities of holographic recording in photopolymers <b>1998</b> , 3488, 276		2
7	Thermodynamical and structural aspects of holographic recording in photopolymers <b>1998</b> ,		4
6	Photoformers: materials for holographic recording <b>1996</b> ,		3
5	Light scattering in holograms written on photopolymerizing compositions. <i>Journal of Applied Spectroscopy</i> , <b>1989</b> , 51, 728-733	0.7	3
4	Optical Nonlinearity And Holographic Recording Of Stable Periodic Structures In Polymeric Photorefractive Media <b>1989</b> ,		5

- 3 Active media for near-infrared polymethine dye lasers. *Soviet Journal of Quantum Electronics*, **1979**, 9, 725-728
- 2 Efficiency of two-photon absorption in single-frequency and multifrequency laser radiation fields. *Soviet Journal of Quantum Electronics*, **1977**, 7, 621-623 8
- 1 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