

# Lyubov Titova

## List of Publications by Year in descending order

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96  
papers

3,192  
citations

172457

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149698

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97  
docs citations

97  
times ranked

4756  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bottom-up, scalable synthesis of anatase nanofilament-based two-dimensional titanium carbo-oxide flakes. <i>Materials Today</i> , 2022, 54, 8-17.	14.2	24
2	Scalable, inexpensive, one-pot, facile synthesis of crystalline two-dimensional birnessite flakes. <i>Matter</i> , 2022, 5, 2365-2381.	10.0	11
3	Synthesis and optoelectronic properties of a promising quaternary metal oxide light absorber $\text{CuBiW}_2\text{O}_8$ . <i>Journal of Materials Chemistry A</i> , 2021, 9, 1643-1654.	10.3	8
4	Pressure and thermal annealing effects on the photoconversion efficiency of polymer solar cells. <i>AIP Advances</i> , 2021, 11, .	1.3	2
5	Intense terahertz pulses inhibit Ras signaling and other cancer-associated signaling pathways in human skin tissue models. <i>JPhys Photonics</i> , 2021, 3, 034004.	4.6	11
6	Annealing effects on interdiffusion in layered FA-rich perovskite solar cells. <i>AIP Advances</i> , 2021, 11, .	1.3	12
7	Two-Dimensional MXenes $\text{Mo}_2\text{Ti}_2\text{C}_3\text{T}_z$ and $\text{Mo}_2\text{TiC}_2\text{T}_z$ : Microscopic Conductivity and Dynamics of Photoexcited Carriers. <i>ACS Applied Energy Materials</i> , 2020, 3, 1530-1539.	5.1	37
8	Dynamical Control over Terahertz Electromagnetic Interference Shielding with 2D $\text{Ti}_3\text{C}_2\text{T}_y$ MXene by Ultrafast Optical Pulses. <i>Nano Letters</i> , 2020, 20, 636-643.	9.1	75
9	Terahertz Polarizers Based on 2D $\text{Ti}_3\text{C}_2\text{T}_z$ MXene: Spin Cast from Aqueous Suspensions. <i>Advanced Photonics Research</i> , 2020, 1, 2000084.	3.6	8
10	Photoexcited Free Carrier Dynamics in $\text{Bi}_{0.75}\text{In}_{0.25}\text{Se}_2$ , $\text{Bi}_{0.50}\text{In}_{0.50}\text{Se}_2$ , and $\text{Bi}_{0.75}\text{In}_{0.25}\text{Se}_3$ : From Topological to Band Insulator. <i>ACS Photonics</i> , 2020, 7, 2778-2786.	6.6	11
11	Group-IV monochalcogenides GeS, GeSe, SnS, SnSe. , 2020, , 119-151.		7
12	Zero-valent Au, Cu, and Sn intercalation into GeS nanoribbons: tailoring ultrafast photoconductive response. , 2020, , .		0
13	Terahertz Polarizers Based on 2D $\text{Ti}_3\text{C}_2\text{T}_z$ MXene: Spin Cast from Aqueous Suspensions. <i>Advanced Photonics Research</i> , 2020, 1, .	3.6	3
14	Transient photoconductivity and photo-excited carrier dynamics in $(\text{Bi}_{1-x}\text{In}_x)_2\text{Se}_3$ thin films. , 2020, , .		0
15	Microscopic conductivity and ultrafast carrier dynamics in molybdenum-based MXenes: THz spectroscopy study. , 2020, , .		0
16	Genomic Signature of Membrane Permeation Induced by Intense THz Pulses. , 2020, , .		0
17	From Graphene Oxide to Graphene: Tuning THz Properties by Reduction and Metal Intercalation. , 2020, , .		0
18	2D MXenes: Terahertz Properties and Applications. , 2020, , .		1

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19	A Novel THz Electromagnetic Interference Shielding Material: 2D Ti <sub>3</sub> C <sub>2</sub> Ty MXene. , 2020, , .		1
20	Balancing Light Absorption and Charge Transport in Vertical SnS <sub>2</sub> Nanoflake Photoanodes with Stepped Layers and Large Intrinsic Mobility. Advanced Energy Materials, 2019, 9, 1901236.	19.5	41
21	Genomic Mechanisms of THz-Induced Cancer Dysregulation in Human Skin. , 2019, , .		1
22	Ultrafast Zero-Bias Surface Photocurrent in Germanium Selenide: Promise for Terahertz Devices and Photovoltaics. ACS Applied Materials & Interfaces, 2019, 11, 5492-5498.	8.0	20
23	Enhancement of hot-carrier photoluminescence with intense terahertz pulses. Applied Physics Letters, 2018, 112, .	3.3	4
24	Terahertz Spectroscopy of 2D Materials. , 2018, , .		1
25	Intensity-dependent Suppression of Calcium Signaling in Human Skin Tissue Models Induced by Intense THz Pulses. , 2018, , .		1
26	Carrier Dynamics in Sn <sup>2+</sup> Single Crystals and Vertical Nanostructures: Role of Edges. , 2018, , .		1
27	Topology-Based Prediction of Pathway Dysregulation Induced by Intense Terahertz Pulses in Human Skin Tissue Models. Journal of Infrared, Millimeter, and Terahertz Waves, 2018, 39, 887-898.	2.2	12
28	Dynamics of Photoexcited Carriers in Polycrystalline PbS and at PbS/ZnO Heterojunctions: Influence of Grain Boundaries and Interfaces. Journal of Physical Chemistry C, 2018, 122, 11682-11688.	3.1	12
29	Equilibrium and non-equilibrium free carrier dynamics in 2D Ti <sub>3</sub> C <sub>2</sub> T MXenes: THz spectroscopy study. 2D Materials, 2018, 5, 035043.	4.4	53
30	Hot-Carrier Induced Photoluminescence Enhancement and Quenching in GaAs and InP Driven by Intense THz Pulses. , 2018, , .		0
31	Ultrafast zero-bias photocurrent in GeS nanosheets. , 2018, , .		0
32	Terahertz emission from 2D nanomaterials. , 2018, , .		2
33	Ultrafast Zero-Bias Photocurrent in GeS Nanosheets: Promise for Photovoltaics. ACS Energy Letters, 2017, 2, 1429-1434.	17.4	53
34	Enhancing the solar energy conversion efficiency of solution-deposited Bi <sub>2</sub> S <sub>3</sub> thin films by annealing in sulfur vapor at elevated temperature. Sustainable Energy and Fuels, 2017, 1, 2134-2144.	4.9	25
35	Biological effects of intense THz pulses on human skin tissue models. , 2017, , .		2
36	Microscopic origin of the Drude-Smith model. Physical Review B, 2017, 96, .	3.2	140

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37	Emission of THz radiation by GeS nanosheets. , 2017, , .		0
38	Ultrafast carrier dynamics and the role of grain boundaries in polycrystalline silicon thin films grown by molecular beam epitaxy. Semiconductor Science and Technology, 2016, 31, 105017.	2.0	20
39	Ultrafast carrier dynamics in BiVO <sub>4</sub> : Interplay between free carriers, trapped carriers and low-frequency lattice vibrations. , 2016, , .		1
40	High Light Absorption and Charge Separation Efficiency at Low Applied Voltage from Sb-Doped SnO <sub>2</sub> /BiVO <sub>4</sub> Core/Shell Nanorod-Array Photoanodes. Nano Letters, 2016, 16, 3463-3474.	9.1	166
41	Ultrafast carrier dynamics in BiVO <sub>4</sub> thin film photoanode material: interplay between free carriers, trapped carriers and low-frequency lattice vibrations. Journal of Materials Chemistry A, 2016, 4, 18516-18523.	10.3	60
42	Imaging ultrafast dynamics on the nanoscale with THz-STM. , 2015, , .		0
43	Generation of Terahertz Radiation by Optical Excitation of Aligned Carbon Nanotubes. Nano Letters, 2015, 15, 3267-3272.	9.1	86
44	Evolution of the Ultrafast Photoluminescence of Colloidal Silicon Nanocrystals with Changing Surface Chemistry. ACS Photonics, 2015, 2, 595-605.	6.6	60
45	Charge transfer state emission dynamics in blue-emitting functionalized silicon nanocrystals. Physical Chemistry Chemical Physics, 2015, 17, 30125-30133.	2.8	37
46	Terahertz Spectroscopy: Studying Carrier Dynamics in Semiconductor Nanostructures. ECS Transactions, 2015, 69, 51-57.	0.5	1
47	Ultrafast THz-pulse-induced tunneling dynamics in an STM. , 2014, , .		2
48	Imaging ultrafast dynamics on the nanoscale with a THz-STM. , 2014, , .		2
49	Analysis of sprayed Carbon nanotube films on rigid and flexible substrates. , 2014, , .		0
50	Size <i>vs</i> Surface: Tuning the Photoluminescence of Freestanding Silicon Nanocrystals Across the Visible Spectrum <i>via</i> Surface Groups. ACS Nano, 2014, 8, 9636-9648.	14.6	293
51	Effect of intense THz pulses on expression of genes associated with skin cancer and inflammatory skin conditions. Proceedings of SPIE, 2014, , .	0.8	1
52	Terahertz STM for Imaging Ultrafast Nanoscale Dynamics. , 2014, , .		0
53	An ultrafast terahertz scanning tunnelling microscope. Nature Photonics, 2013, 7, 620-625.	31.4	380
54	Tuning iron pyrite thin film microstructure by sulfurization of columnar iron precursors. Solar Energy Materials and Solar Cells, 2013, 117, 306-314.	6.2	10

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55	Intense THz pulses cause H2AX phosphorylation and activate DNA damage response in human skin tissue. Biomedical Optics Express, 2013, 4, 559.	2.9	119
56	Intense picosecond THz pulses alter gene expression in human skin tissue in vivo. , 2013, , .		9
57	Intense THz pulses down-regulate genes associated with skin cancer and psoriasis: a new therapeutic avenue?. Scientific Reports, 2013, 3, 2363.	3.3	98
58	Imaging ultrafast nanoscale dynamics with a THz-pulse-coupled STM. , 2013, , .		0
59	Phase diagram of the ultrafast photoinduced insulator-metal transition in vanadium dioxide. Physical Review B, 2012, 85, .	3.2	148
60	(Invited) Ultrafast Carrier Dynamics in Silicon Nanocrystal Films. ECS Transactions, 2012, 45, 21-29.	0.5	6
61	Time-resolved THz spectroscopy of the Ultrafast Photoinduced Insulator-metal Phase Transition of VO <sub>2</sub> . , 2012, , .		1
62	Using Terahertz Time-Domain Spectroscopy to Determine the Glass Transition Temperature of Heavy Oils. , 2012, , .		0
63	Ultrafast percolative transport dynamics in silicon nanocrystal films. Physical Review B, 2011, 83, .	3.2	57
64	Dielectric Properties of Heavy Oils Using Terahertz Time-Domain Spectroscopy. , 2011, , .		0
65	Transient Reflective Ultra-broadband THz Spectroscopy. , 2011, , .		0
66	Terahertz nonlinear spectroscopy of free-carriers in direct bandgap semiconductors. Proceedings of SPIE, 2010, , .	0.8	0
67	Terahertz conductivity of the metal-insulator transition in a nanogranular VO <sub>2</sub> film. Applied Physics Letters, 2010, 97, .	3.3	90
68	Selective excitation of exciton transitions in PTCDA crystals and films. Physical Review B, 2010, 81, .	3.2	27
69	High power terahertz sources for nonlinear spectroscopy of direct bandgap semiconductors. , 2010, , .		0
70	Time-Resolved Terahertz Spectroscopy of Free Carrier Nonlinear Dynamics in Semiconductors. IEEE Photonics Journal, 2010, 2, 578-592.	2.0	20
71	Application of high power terahertz sources to nonlinear spectroscopy of direct bandgap semiconductors. , 2010, , .		0
72	Terahertz pulse induced intervalley scattering in photoexcited GaAs. Optics Express, 2009, 17, 9620.	3.4	92

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73	Terahertz nonlinear spectroscopy of free-carriers in semiconductors. , 2009, , .		0
74	Spatially resolved photoluminescence mapping of single CdS nanosheets. Applied Physics Letters, 2008, 92, .	3.3	9
75	Polarized photoluminescence and time-resolved photoluminescence from single CdS nanosheets. Applied Physics Letters, 2008, 92, .	3.3	10
76	Optical Properties of Single CdS Nanosheets. Journal of the Korean Physical Society, 2008, 53, 3073-3076.	0.7	0
77	Polarization and temperature dependence of photoluminescence from zinblende and wurtzite InP nanowires. Applied Physics Letters, 2007, 91, .	3.3	196
78	Resonant Excitation and Imaging of Nonequilibrium Exciton Spins in Single Core-Shell GaAs-AlGaAs Nanowires. Nano Letters, 2007, 7, 588-595.	9.1	41
79	Spatially-resolved Photoluminescence Imaging of CdS and GaAs/AlGaAs Nanowires. AIP Conference Proceedings, 2007, , .	0.4	1
80	Dynamics of Strongly Degenerate Electron-Hole Plasmas and Excitons in Single InP Nanowires. Nano Letters, 2007, 7, 3383-3387.	9.1	49
81	Low-temperature photoluminescence imaging and time-resolved spectroscopy of single CdS nanowires. Applied Physics Letters, 2006, 89, 053119.	3.3	38
82	Resonant Raman scattering from CdS nanowires. Applied Physics Letters, 2006, 88, 043118.	3.3	39
83	Temperature dependent photoluminescence of single CdS nanowires. Applied Physics Letters, 2006, 89, 123123.	3.3	56
84	Temperature dependence of photoluminescence from single core-shell GaAs-AlGaAs nanowires. Applied Physics Letters, 2006, 89, 173126.	3.3	158
85	Observation of Combined Ferromagnetic/Paramagnetic Phase in Ga <sub>1-x</sub> MnxAs by Magnetic Circular Dichroism. Journal of Superconductivity and Novel Magnetism, 2005, 18, 131-135.	0.5	2
86	Magnetic circular dichroism in ZnSe/Ga <sub>1-x</sub> MnxAs hybrid structures with Be and Si co-doping. AIP Conference Proceedings, 2005, , .	0.4	2
87	Competition between cubic and uniaxial anisotropy in Ga <sub>1-x</sub> MnxAs in the low-Mn-concentration limit. Physical Review B, 2005, 72, .	3.2	41
88	Observation of photoluminescence related to Lomer-Cottrell-like dislocations in ZnSe epilayers grown on cleaved (110)GaAs surfaces. Journal of Applied Physics, 2005, 97, 013519.	2.5	10
89	Perpendicular magnetization reversal, magnetic anisotropy, multistep spin switching, and domain nucleation and expansion in Ga <sub>1-x</sub> MnxAs films. Journal of Applied Physics, 2005, 98, 063904.	2.5	81
90	External control of the direction of magnetization in ferromagnetic InMnAs/GaSb heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 370-373.	2.7	21

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91	ZnCdSe quantum structures by (110)-cleaved-edge overgrowth: MBE growth and $\frac{1}{4}$ -PL characterization. Physica Status Solidi (B): Basic Research, 2004, 241, 519-522.	1.5	2
92	Growth and properties of ferromagnetic In $\frac{1}{2}$ Mn Sb alloys. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 325-332.	2.7	36
93	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 453-456.	0.5	5
94	Structural and magneto-optical studies on multiple quantum dots containing magnetic semiconductors. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 1283-1287.	0.8	0
95	Magnetic CdSe-based quantum dots grown on Mn-passivated ZnSe. Applied Physics Letters, 2002, 80, 1237-1239.	3.3	25
96	Fabrication and characterization of III-V semiconductor superlattices with sinusoidal compositional modulation. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 1143-1146.	2.7	1