

# Roman Pisarev

## List of Publications by Year in descending order

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61  
papers

3,951  
citations

186265

28  
h-index

128289

60  
g-index

62  
all docs

62  
docs citations

62  
times ranked

3843  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of coupled magnetic and electric domains. Nature, 2002, 419, 818-820.	27.8	1,395
2	Determination of the Magnetic Symmetry of Hexagonal Manganites by Second Harmonic Generation. Physical Review Letters, 2000, 84, 5620-5623.	7.8	306
3	Second Harmonic Generation and Magnetic-Dipole-Electric-Dipole Interference in Antiferromagnetic Cr <sub>2</sub> O <sub>3</sub> . Physical Review Letters, 1994, 73, 2127-2130.	7.8	197
4	Charge transfer transitions in multiferroic $\text{BiFeO}_3$ related ferrite insulators. Physical Review B, 2009, 79, .	3.2	191
5	Ultrafast optical modification of exchange interactions in iron oxides. Nature Communications, 2015, 6, 8190.	12.8	164
6	Spin-rotation phenomena and magnetic phase diagrams of hexagonal RMnO <sub>3</sub> . Journal of Applied Physics, 2003, 93, 8194-8196.	2.5	139
7	Second Harmonic Generation in the Centrosymmetric Antiferromagnet NiO. Physical Review Letters, 2001, 87, 137202.	7.8	118
8	Structure and Interaction of Antiferromagnetic Domain Walls in Hexagonal YMnO <sub>3</sub> . Physical Review Letters, 2003, 90, 177204.	7.8	95
9	Impulsive excitation of coherent magnons and phonons by subpicosecond laser pulses in the weak ferromagnet $\text{FeBO}_3$ . Physical Review B, 2008, 78, .	3.2	92
10	Macrospin dynamics in antiferromagnets triggered by sub-20 femtosecond injection of nanomagnons. Nature Communications, 2016, 7, 10645.	12.8	91
11	Magnetic-Field Induced Second Harmonic Generation in CuB <sub>2</sub> O <sub>4</sub> . Physical Review Letters, 2004, 93, 037204.	7.8	62
12	Electronic structure of hexagonal rare-earth manganites RMnO <sub>3</sub> . JETP Letters, 2003, 78, 143-147.	1.4	58
13	Second-harmonic generation spectroscopy of excitons in ZnO. Physical Review B, 2013, 88, .	3.2	58
14	Second harmonic generation in anisotropic magnetic films. Physical Review B, 2001, 63, .	3.2	52
15	Controlling coherent and incoherent spin dynamics by steering the photoinduced energy flow. Physical Review B, 2014, 89, .	3.2	49
16	Spin-Induced Optical Second Harmonic Generation in the Centrosymmetric Magnetic Semiconductors EuTe and EuSe. Physical Review Letters, 2009, 103, 057203.	7.8	45
17	Terahertz light-driven coupling of antiferromagnetic spins to lattice. Science, 2021, 374, 1608-1611.	12.6	45
18	Optical properties and electronic structure of multiferroic hexagonal orthoferrites $\text{RFeO}_3$ (R = Ho, Er, Lu). Journal of Applied Physics, 2012, 111, .	2.5	42

#	ARTICLE	IF	CITATIONS
19	Optical spectroscopy of charge transfer transitions in multiferroic manganites, ferrites, and related insulators. <i>Low Temperature Physics</i> , 2010, 36, 489-510.	0.6	40
20	Charge-transfer transitions in mixed-valent multiferroic $TbMn_2O_5$ . <i>Physical Review B</i> , 2008, 77, .	3.2	39
21	Optical phenomena in $BaMnF_4$ near its phase-transition temperatures. <i>Physical Review B</i> , 1983, 28, 2677-2685.	3.2	37
22	Crystal optics of magnetoelectrics. <i>Ferroelectrics</i> , 1994, 162, 191-209.	0.6	37
23	Laser-driven quantum magnonics and terahertz dynamics of the order parameter in antiferromagnets. <i>Physical Review B</i> , 2019, 100, .	3.2	37
24	Electronic transitions and genuine crystal-field parameters in copper metaborate $CuB_2O_4$ . <i>Physical Review B</i> , 2011, 84, .	3.2	35
25	Linear and nonlinear optical spectroscopy of gadolinium iron borate $GdFe_3(BO_3)_4$ . <i>JETP Letters</i> , 2004, 80, 293-297.	1.4	34
26	Magnetic-Field-Induced Second-Harmonic Generation in Semiconductor GaAs. <i>Physical Review Letters</i> , 2005, 94, 157404.	7.8	33
27	Resonant Pumping of $d-d$ Crystal Field Electronic Transitions as a Mechanism of Ultrafast Optical Control of the Exchange Interactions in Iron Oxides. <i>Physical Review Letters</i> , 2020, 125, 157201.	7.8	33
28	Determination of TN for $KNiF_3$ through elastic, magneto-optical, and heat capacity measurements. <i>Applied Physics Letters</i> , 1972, 21, 161-162.	3.3	28
29	Time-resolved nonlinear optical spectroscopy of $Mn^{3+}$ ions in rare-earth hexagonal manganites $RMnO_3$ ( $R=Sc, Y, Er$ ). <i>Physical Review B</i> , 2001, 64, .	3.2	28
30	Terahertz magnetization dynamics induced by femtosecond resonant pumping of $DyFeO_3$ in the multisublattice antiferromagnet. <i>Physical Review B</i> , 2015, 92, .	3.2	26
31	the bismuth cuprate $Bi_2O_2$ . <i>Physical Review B</i> , 2010, 82, .	3.2	23
32	Electric field effect on optical harmonic generation at the exciton resonances in GaAs. <i>Physical Review B</i> , 2015, 92, .	3.2	23
33	Antiferromagnetic Dichroism in a Complex Multisublattice Magnetoelectric $CuB_2O_4$ . <i>Physical Review Letters</i> , 2015, 114, 247210.	7.8	22
34	Orbital quantization of electronic states in a magnetic field as the origin of second-harmonic generation in diamagnetic semiconductors. <i>Physical Review B</i> , 2006, 74, .	3.2	21
35	Lattice dynamics of piezoelectric copper metaborate $CuB_2O_4$ . <i>Physical Review B</i> , 2013, 88, .	3.2	20
36	Novel mechanisms of optical harmonics generation in semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1498-1504.	1.5	17

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37	Exciton Spectroscopy of Semiconductors by the Method of Optical Harmonics Generation (Review). Physics of the Solid State, 2018, 60, 1471-1486.	0.6	17
38	Optical study of the electronic structure and magnetic ordering in a weak ferromagnet FeBO <sub>3</sub> . JETP Letters, 2008, 86, 712-717.	1.4	16
39	Lattice dynamics and spontaneous magnetodielectric effect in ilmenite CoTiO <sub>3</sub> . Journal of Alloys and Compounds, 2021, 858, 157633.	5.5	16
40	Lattice dynamics and a magnetic-structural phase transition in the nickel orthoborate $Ni_3O_7$ . Physical Review B, 2019, 100, 114407.	3.2	14
41	Magnetic phase diagram of Cu <sub>2</sub> O <sub>4</sub> . Journal of Applied Physics, 2003, 93, 6960-6962.	2.5	13
42	Spin and Orbital Quantization of Electronic States as Origins of Second Harmonic Generation in Semiconductors. Physical Review Letters, 2006, 96, 117211.	7.8	13
43	Anomalous optical properties of the mixed-valent lithium cuprate LiCu <sub>2</sub> O <sub>2</sub> . Physical Review B, 2006, 74, .	3.2	13
44	Lattice dynamics and microscopic mechanisms of the spontaneous magnetodielectric effect in the antiferromagnetic fluoroperovskites $KCoF_3$ and $RbCoF_3$ . Physical Review B, 2019, 100, 114407.	3.2	12
45	Lattice dynamics and microscopic mechanisms of the spontaneous magnetodielectric effect in the fluoroperovskite $PnMnF_3$ . Physical Review B, 2020, 101, .	3.2	12
46	Magnetic-field-induced second-harmonic generation in the diluted magnetic semiconductors $Cd_{1-x}Mn_xTe$ . Physical Review B, 2006, 74, .	3.2	11
47	Incipient geometric lattice instability of cubic fluoroperovskites. Physical Review B, 2021, 104, .	3.2	11
48	Unveiling hidden structural instabilities and magnetodielectric effect in manganese fluoroperovskites $MnF_3$ . Physical Review B, 2018, 98, .	3.2	9
49	Third harmonic generation on exciton-polaritons in bulk semiconductors subject to a magnetic field. Physical Review B, 2018, 98, .	3.2	9
50	Toroidal nonreciprocity of optical second harmonic generation. Physical Review B, 2021, 103, .	3.2	9
51	Laser-induced THz magnetism of antiferromagnetic $CoF_2$ . Journal of Physics Condensed Matter, 2022, 34, 225801.	1.8	8
52	Ultrafast photoinduced linear and circular optical anisotropy in the multiferroic hexagonal manganite $YMnO_3$ . Physical Review B, 2013, 88, .	3.2	7
53	Exciton and exciton-magnon photoluminescence in the antiferromagnet $CuB_2O_4$ . Physical Review B, 2020, 102, .	3.2	7
54	Broken symmetries and optical phenomena in crystals. Ferroelectrics, 1996, 183, 39-50.	0.6	6

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55	Lattice and magnetic dynamics of a quasi-one-dimensional chain antiferromagnet PbFeBO <sub>4</sub> . Journal of Physics Condensed Matter, 2017, 29, 025808.	1.8	5
56	Zeeman and Davydov splitting of Frenkel excitons in the antiferromagnet CuB <sub>2</sub> O <sub>4</sub> . Physical Review B, 2022, 105, .	3.2	4
57	Impact of Ferroelectric Ordering on Optical and Magnetic Properties of Hexagonal Manganites. Ferroelectrics, 2004, 303, 113-118.	0.6	2
58	Spontaneous Magnetodielectric Effect and Its Coupling to the Lattice Dynamics in Fluoroperovskites. Journal of Experimental and Theoretical Physics, 2020, 131, 189-200.	0.9	2
59	Magnetic and antiferromagnetic nonreciprocity of light propagation in magnetoelectric CuB <sub>2</sub> O <sub>4</sub> . Physical Review B, 2021, 104, .	3.2	2
60	Subterahertz and terahertz spin and lattice dynamics of the insulating ferromagnet PbMnBO <sub>4</sub> . Physical Review Research, 2022, 4, .	3.6	1
61	Femtosecond Photo-Induced Phenomena in Multiferroic Hexagonal Manganite YMnO <sub>3</sub> . Solid State Phenomena, 2015, 233-234, 149-152.	0.3	0