Arkadii Krokhin

List of Publications by Year
in descending order

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46	1,626	430874	289244
papers	citations	18 h-index	40 g-index

46	46	46	957
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Localization and the Mobility Edge in One-Dimensional Potentials with Correlated Disorder. Physical Review Letters, 1999, 82, 4062-4065.	7.8	360
2	Experimental observation of the mobility edge in a waveguide with correlated disorder. Applied Physics Letters, 2000, 77, 633-635.	3.3	198
3	Photonic Crystal Optics and Homogenization of 2D Periodic Composites. Physical Review Letters, 1999, 82, 719-722.	7.8	142
4	Speed of Sound in Periodic Elastic Composites. Physical Review Letters, 2003, 91, 264302.	7.8	108
5	Mobility edge in aperiodic Kronig-Penney potentials with correlated disorder: Perturbative approach. Physical Review B, 2001, 63, .	3.2	107
6	Long-wavelength limit (homogenization) for two-dimensional photonic crystals. Physical Review B, 2002, 65, .	3.2	95
7	Enhancement of Localization in One-Dimensional Random Potentials with Long-Range Correlations. Physical Review Letters, 2008, 100, 126402.	7.8	82
8	Influence of weak dissipation on the photonic band structure of periodic composites. Physical Review B, 1996, 53, 1205-1214.	3.2	39
9	Nondestructive ultrasonic evaluation of fused deposition modeling based additively manufactured 3D-printed structures. Smart Materials and Structures, 2020, 29, 045020.	3.5	33
10	Homogenization of Magnetodielectric Photonic Crystals. Physical Review Letters, 2004, 93, 023904.	7.8	32
11	Dynamical origin of memory and renewal. Physical Review E, 2006, 74, 021108.	2.1	32
12	Swelling Kinetics of a Microgel Shell. Macromolecules, 2009, 42, 9357-9365.	4.8	32
13	Controlled terahertz frequency response and transparency of Josephson chains and superconducting multilayers. Physical Review B, 2007, 75, .	3.2	31
14	Low-frequency index of refraction for a two-dimensional metallodielectric photonic crystal. Physical Review B, 2007, 75, .	3.2	27
15	Electron localization in a two-channel tight-binding model with correlated disorder. Physical Review B, 2007, 76, .	3.2	23
16	Inhomogeneous DNA: Conducting exons and insulating introns. Physical Review B, 2009, 80, .	3.2	23
17	High-frequency homogenization for layered hyperbolic metamaterials. Physical Review B, 2016, 93, .	3.2	21
18	Nonreciprocal Linear Transmission of Sound in a Viscous Environment with Broken <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>P</mml:mi></mml:math> Symmetry. Physical Review Letters, 2018, 120, 204501.	7.8	18

#	Article	IF	Citations
19	Enhanced Instantaneous Elastography in Tissues and Hard Materials Using Bulk Modulus and Density Determined Without Externally Applied Material Deformation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 624-634.	3.0	18
20	The effects of temperature and frequency dispersion on sound speed in bulk poly (vinyl alcohol) poly (N-isopropylacrylamide) hydrogels caused by the phase transition. Ultrasonics, 2020, 104, 105931.	3.9	16
21	Crystallographic texture dependent bulk anisotropic elastic response of additively manufactured Ti6Al4V. Scientific Reports, 2021, 11, 633.	3.3	16
22	Thermomechanically influenced dynamic elastic constants of laser powder bed fusion additively manufactured Ti6Al4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 811, 140990.	5.6	16
23	Phononic crystal as a homogeneous viscous metamaterial. Physical Review Research, 2020, 2, .	3.6	15
24	Novel 2D Dynamic Elasticity Maps for Inspection of Anisotropic Properties in Fused Deposition Modeling Objects. Polymers, 2020, 12, 1966.	4.5	14
25	From the trajectory to the density memory. Chaos, Solitons and Fractals, 2007, 34, 19-32.	5.1	13
26	Long-range nonspreading propagation of sound beam through periodic layered structure. Communications Physics, 2020, 3, .	5.3	13
27	Electrostatic mechanism of strong enhancement of light emitted by semiconductor quantum wells. Physical Review B, 2013, 87, .	3.2	12
28	Localization of ultrasound in 2D phononic crystal with randomly oriented asymmetric scatterers. Journal of Applied Physics, 2021, 129, .	2.5	10
29	Metafluid with anisotropic dynamic mass. Low Temperature Physics, 2011, 37, 975-978.	0.6	9
30	Anomalous temperature dependence of speed of sound of bulk poly(N-isopropylacrylamide) hydrogels near the phase transition. Ultrasonics, 2014, 54, 1337-1340.	3.9	9
31	Non-reciprocal acoustics in a viscous environment. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200657.	2.1	8
32	Ultrasonic elastography for nondestructive evaluation of dissimilar material joints. Journal of Materials Processing Technology, 2022, 299, 117301.	6.3	8
33	Comparison of electrostatic and localized plasmon induced light enhancement in hybrid InGaN/GaN quantum wells. Applied Physics Letters, 2014, 104, 242106.	3.3	7
34	Simultaneous negative reflection and refraction and reverse-incident right-angle collimation of sound in a solid-fluid phononic crystal. Journal of the Acoustical Society of America, 2022, 151, 2723-2731.	1.1	7
35	Redirection of sound in straight fluid channel with elastic boundaries. Physical Review B, 2015, 91, .	3.2	6
36	Spatial Decomposition of a Broadband Pulse Caused by Strong Frequency Dispersion of Sound in Acoustic Metamaterial Superlattice. Materials, 2021, 14, 125.	2.9	5

#	Article	IF	Citations
37	Resonant excitation of coupled Rayleigh waves in a short and narrow fluid channel clad between two identical metal plates. AIP Advances, 2011, 1, .	1.3	4
38	Resonant coupling of Rayleigh waves through a narrow fluid channel causing extraordinary low acoustic transmission. Journal of the Acoustical Society of America, 2012, 132, 2807-2815.	1.1	4
39	Redirection and Splitting of Sound Waves by a Periodic Chain of Thin Perforated Cylindrical Shells. Physical Review Applied, 2017, 7, .	3.8	4
40	Metallic Nanodroplet Induced Coulomb Catalysis for Off-Resonant Plasmonic Enhancement of Photoemission in Semiconductors. ACS Omega, 2016, 1, 19-28.	3.5	3
41	Dynamical effective parameters of elastic superlattice with strong acoustic contrast between the constituents. Low Temperature Physics, 2018, 44, 1280-1284.	0.6	2
42	Transport properties and enhanced figure of merit of quantum dot-based spintronic thermoelectric device. Journal of Physics Condensed Matter, 2018, 30, 315303.	1.8	2
43	Sub-Diffraction-Limit Imaging System with two Interfacing Hyperbolic Metamaterials. Physical Review Applied, 2021, 16, .	3.8	2
44	Tunable Photonic Crystals Incorporating Variable Refractive Index Organic Polymers. , 2008, , .		0
45	Surface plasmon at a metal-dielectric interface with an epsilon-near-zero transition layer. Physical Review B, 2021, 103, .	3.2	0
46	Electrostatic mechanism of strong enhancement of light emitted by semiconductor quantum wells due to the incorporation of metallic nanocrystals. , 2016, , .		0