# Ping Sheng

List of Publications by Year
in descending order



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|---|---|---|---|
| 457 papers | 36,187 citations | 4136 87 h-index | 3647 180 g-index |
| 465 all docs | 465 docs citations | 465 times ranked | 18666 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Locally Resonant Sonic Materials. Science, 2000, 289, 1734-1736. | 6.0 | 4,009 |
| 2 | Structural and electrical properties of granular metal films. Advances in Physics, 1975, 24, 407-461. | 35.9 | 1,360 |
| 3 | Transformation optics and metamaterials. Nature Materials, 2010, 9, 387-396. | 13.3 | 1,017 |
| 4 | Acoustic metamaterials: From local resonances to broad horizons. Science Advances, 2016, 2, e1501595. | 4.7 | 986 |
| 5 | Fluctuation-induced tunneling conduction in disordered materials. Physical Review B, 1980, 21, 2180-2195. | 1.1 | 925 |
| 6 | Hopping Conductivity in Granular Metals. Physical Review Letters, 1973, 31, 44-47. | 2.9 | 859 |
| 7 | Membrane-Type Acoustic Metamaterial with Negative Dynamic Mass. Physical Review Letters, 2008, 101, 204301. | 2.9 | 839 |
| 8 | Dark acoustic metamaterials as super absorbers for low-frequency sound. Nature Communications, 2012, 3, 756. | 5.8 | 835 |
| 9 | Acoustic metasurface with hybrid resonances. Nature Materials, 2014, 13, 873-878. | 13.3 | 801 |
| 10 | Superconductivity in 4 Angstrom Single-Walled Carbon Nanotubes. Science, 2001, 292, 2462-2465. | 6.0 | 778 |
| 11 | Fluctuation-Induced Tunneling Conduction in Carbon-Polyvinylchloride Composites. Physical Review Letters, 1978, 40, 1197-1200. | 2.9 | 560 |
| 12 | Focusing of Sound in a 3D Phononic Crystal. Physical Review Letters, 2004, 93, 024301. | 2.9 | 536 |
| 13 | The giant electrorheological effect in suspensions of nanoparticles. Nature Materials, 2003, 2, 727-730. | 13.3 | 530 |
| 14 | Photonic Band Gap from a Stack of Positive and Negative Index Materials. Physical Review Letters, 2003, 90, 083901. | 2.9 | 508 |
| 15 | Geometric phase and band inversion in periodic acoustic systems. Nature Physics, 2015, 11, 240-244. | 6.5 | 498 |
| 16 | Analytic model of phononic crystals with local resonances. Physical Review B, 2005, 71, . | 1.1 | 408 |
| 17 | Hybrid elastic solids. Nature Materials, 2011, 10, 620-624. | 13.3 | 386 |
| 18 | Acoustic metamaterial panels for sound attenuation in the 50â€“1000 Hz regime. Applied Physics Letters, 2010, 96, . | 1.5 | 385 |

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| 19 | Optimal sound-absorbing structures. Materials Horizons, 2017, 4, 673-680. | 6.4 | 365 |
| 20 | Boundary-layer phase transition in nematic liquid crystals. Physical Review A, 1982, 26, 1610-1617. | 1.0 | 355 |
| 21 | Characterizing and Patterning of PDMSâ€Based Conducting Composites. Advanced Materials, 2007, 19, 2682-2686. | 11.1 | 347 |
| 22 | Sound Absorption Structures: From Porous Media to Acoustic Metamaterials. Annual Review of Materials Research, 2017, 47, 83-114. | 4.3 | 342 |
| 23 | Elastic wave scattering by periodic structures of spherical objects: Theory and experiment. Physical Review B, 2000, 62, 2446-2457. | 1.1 | 329 |
| 24 | Phase Transition in Surface-Aligned Nematic Films. Physical Review Letters, 1976, 37, 1059-1062. | 2.9 | 322 |
| 25 | Molecular scale contact line hydrodynamics of immiscible flows. Physical Review E, 2003, 68, 016306. | 0.8 | 307 |
| 26 | A variational approach to moving contact line hydrodynamics. Journal of Fluid Mechanics, 2006, 564, 333. | 1.4 | 301 |
| 27 | Theory for the Dielectric Function of Granular Composite Media. Physical Review Letters, 1980, 45, 60-63. | 2.9 | 298 |
| 28 | Large third-order optical nonlinearity in Au:SiO2 composite films near the percolation threshold. Applied Physics Letters, 1997, 70, 1-3. | 1.5 | 287 |
| 29 | Coupled Membranes with Doubly Negative Mass Density and Bulk Modulus. Physical Review Letters, 2013, 110, 134301. | 2.9 | 276 |
| 30 | Hopping conductivity in granular disordered systems. Physical Review B, 1983, 27, 2583-2586. | 1.1 | 273 |
| 31 | Exact eigenfunctions for square-wave gratings: Application to diffraction and surface-plasmon calculations. Physical Review B, 1982, 26, 2907-2916. | 1.1 | 263 |
| 32 | Ultrasound Tunneling through 3D Phononic Crystals. Physical Review Letters, 2002, 88, 104301. | 2.9 | 253 |
| 33 | Three-component elastic wave band-gap material. Physical Review B, 2002, 65, . | 1.1 | 240 |
| 34 | Locally resonant sonic materials. Physica B: Condensed Matter, 2003, 338, 201-205. | 1.3 | 239 |
| 35 | Transport properties of the composite material carbon-poly(vinyl chloride). Physical Review B, 1978, 18, 5712-5716. | 1.1 | 214 |
| 36 | Subwavelength total acoustic absorption with degenerate resonators. Applied Physics Letters, 2015, 107, . | 1.5 | 212 |

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| 37 | Electrorheological fluids: structures and mechanisms. Soft Matter, 2008, 4, 200-210. | 1.2 | 207 |
| 38 | Robust Photonic Band Gap from Tunable Scatterers. Physical Review Letters, 2000, 84, 2853-2856. | 2.9 | 186 |
| 39 | Electrorheological Fluids: Mechanisms, Dynamics, and Microfluidics Applications. Annual Review of Fluid Mechanics, 2012, 44, 143-174. | 10.8 | 184 |
| 40 | Probing the electron states and metal-insulator transition mechanisms in molybdenum disulphide vertical heterostructures. Nature Communications, 2015, 6, 6088. | 5.8 | 181 |
| 41 | Wavelengthâ€selective absorption enhancement in thinâ€film solar cells. Applied Physics Letters, 1983, 43, 579-581. | 1.5 | 180 |
| 42 | An efficient numerical evaluation of the Green's function for the Helmholtz operator on periodic structures. Journal of Computational Physics, 1986, 63, 222-235. | 1.9 | 175 |
| 43 | Broadband locally resonant sonic shields. Applied Physics Letters, 2003, 83, 5566-5568. | 1.5 | 171 |
| 44 | Large-Area Two-Dimensional Mesoscale Quasi-Crystals. Advanced Materials, 2003, 15, 1526-1528. | 11.1 | 169 |
| 45 | High-flux water desalination with interfacial salt sieving effect in nanoporous carbon composite membranes. Nature Nanotechnology, 2018, 13, 345-350. | 15.6 | 157 |
| 46 | Feature article: Electronic transport in granular metal filmsâ€. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1992, 65, 357-384. | 0.6 | 156 |
| 47 | Effective Mass Density of Fluid-Solid Composites. Physical Review Letters, 2006, 96, 024301. | 2.9 | 156 |
| 48 | Breaking the barriers: advances in acoustic functional materials. National Science Review, 2018, 5, 159-182. | 4.6 | 153 |
| 49 | Electromagnetic-Wave Tunneling Through Negative-Permittivity Media with High Magnetic Fields. Physical Review Letters, 2005, 94, . | 2.9 | 150 |
| 50 | Tuning Fabry-Perot resonances via diffraction evanescent waves. Physical Review B, 2007, 76, . | 1.1 | 150 |
| 51 | Negative-refraction imaging with two-dimensional phononic crystals. Physical Review B, 2005, 72, . | 1.1 | 146 |
| 52 | Variable liquid crystal pretilt angles by nanostructured surfaces. Applied Physics Letters, 2006, 88, 051910. | 1.5 | 146 |
| 53 | Voltage-Induced Tunneling Conduction in Granular Metals at Low Temperatures. Physical Review Letters, 1972, 28, 34-37. | 2.9 | 141 |
| 54 | Two- and Three-Dimensional Ordered Structures of Hollow Silver Spheres Prepared by Colloidal Crystal Templating. Advanced Materials, 2004, 16, 417-422. | 11.1 | 135 |

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|---|---|---|---|
| 55 | Active control of membrane-type acoustic metamaterial by electric field. Applied Physics Letters, 2015, 106, . | 1.5 | 134 |
| 56 | Frequency Dependent Electrorheological Properties: Origin and Bounds. Physical Review Letters, 1996, 77, 2499-2502. | 2.9 | 128 |
| 57 | Generalized hydrodynamic equations for nematic liquid crystals. Physical Review E, 1998, 58, 7475-7485. | 0.8 | 128 |
| 58 | Photonic clusters formed by dielectric microspheres: Numerical simulations. Physical Review B, 2005, 72, . | 1.1 | 125 |
| 59 | Real-time detection, control, and sorting of microfluidic droplets. Biomicrofluidics, 2007, 1, 44101. | 1.2 | 124 |
| 60 | Knife-edge scanning measurements of subwavelength focused light beams. Applied Optics, 1977, 16, 1971. | 2.1 | 123 |
| 61 | A generalized differential effective medium theory. Journal of the Mechanics and Physics of Solids, 1985, 33, 525-543. | 2.3 | 123 |
| 62 | Particle size scaling of the giant electrorheological effect. Applied Physics Letters, 2004, 85, 299-301. | 1.5 | 122 |
| 63 | Scalar-Wave Localization in a Two-Component Composite. Physical Review Letters, 1986, 57, 1879-1882. | 2.9 | 120 |
| 64 | Effectiveâ€medium theories for twoâ€phase dielectric media. Journal of Applied Physics, 1985, 57, 1990-1996. | 1.1 | 118 |
| 65 | Immiscible-fluid displacement: Contact-line dynamics and the velocity-dependent capillary pressure. Physical Review A, 1992, 45, 5694-5708. | 1.0 | 118 |
| 66 | Subwavelength Photonic Band Gaps from Planar Fractals. Physical Review Letters, 2002, 89, 223901. | 2.9 | 118 |
| 67 | Chiral microstructures (spirals) fabrication by holographic lithography. Optics Express, 2005, 13, 7615. | 1.7 | 116 |
| 68 | Effective-medium theory of sedimentary rocks. Physical Review B, 1990, 41, 4507-4512. | 1.1 | 115 |
| 69 | Dynamics of immiscible-fluid displacement in a capillary tube. Physical Review Letters, 1990, 64, 882-885. | 2.9 | 112 |
| 70 | Group Velocity in Strongly Scattering Media. Science, 1996, 271, 634-637. | 6.0 | 111 |
| 71 | Dynamic mass density and acoustic metamaterials. Physica B: Condensed Matter, 2007, 394, 256-261. | 1.3 | 110 |
| 72 | Moving contact line on chemically patterned surfaces. Journal of Fluid Mechanics, 2008, 605, 59-78. | 1.4 | 110 |

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| 73 | Design and Fabrication of Magnetically Functionalized Core/Shell Microspheres for Smart Drug Delivery. Advanced Functional Materials, 2009, 19, 292-297. | 7.8 | 110 |
| 74 | Dynamic Permeability in Porous Media. Physical Review Letters, 1988, 61, 1591-1594. | 2.9 | 108 |
| 75 | New Electrorheological Fluid: Theory and Experiment. Physical Review Letters, 1997, 78, 2987-2990. | 2.9 | 105 |
| 76 | Three-dimensional self-assembly of metal nanoparticles: Possible photonic crystal with a complete gap below the plasma frequency. Physical Review B, 2001, 64, . | 1.1 | 102 |
| 77 | Liquid Crystal Orientation Transition on Microtextured Substrates. Physical Review Letters, 2003, 91, 215501. | 2.9 | 100 |
| 78 | Homogenization scheme for acoustic metamaterials. Physical Review B, 2014, 89, . | 1.1 | 100 |
| 79 | First-principles calculations of dynamic permeability in porous media. Physical Review B, 1989, 39, 12027-12039. | 1.1 | 96 |
| 80 | Polarization bandgaps and fluid-like elasticity in fully solid elastic metamaterials. Nature Communications, 2016, 7, 13536. | 5.8 | 96 |
| 81 | Shaping reverberating sound fields with an actively tunable metasurface. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6638-6643. | 3.3 | 95 |
| 82 | Localization in One-Dimensional Disordered Systems in the Presence of an Electric Field. Physical Review Letters, 1983, 50, 764-767. | 2.9 | 93 |
| 83 | Power-Law Slip Profile of the Moving Contact Line in Two-Phase Immiscible Flows. Physical Review Letters, 2004, 93, 094501. | 2.9 | 93 |
| 84 | Low-frequency narrow-band acoustic filter with large orifice. Applied Physics Letters, 2013, 103, . | 1.5 | 91 |
| 85 | Critical point in the magnetic field-temperature phase diagram of nematic liquid crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1974, 48, 235-236. | 0.9 | 89 |
| 86 | Planar Magnetic Colloidal Crystals. Physical Review Letters, 2000, 85, 5464-5467. | 2.9 | 89 |
| 87 | Effective dynamic mass density of composites. Physical Review B, 2007, 76, . | 1.1 | 89 |
| 88 | Sound absorption by subwavelength membrane structures: A geometric perspective. Comptes Rendus - Mecanique, 2015, 343, 635-644. | 2.1 | 82 |
| 89 | First-principles Fourier approach for the calculation of the effective dielectric constant of periodic composites. Physical Review B, 1990, 41, 2417-2420. | 1.1 | 81 |
| 90 | The melting behavior of small clusters of atoms. Chemical Physics Letters, 1984, 110, 63-66. | 1.2 | 80 |

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| 91 | Third-order optical nonlinearity enhancement through composite microstructures. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 1022. | 0.9 | 79 |
| 92 | Wave transport in random media:â€ƒThe ballistic to diffusive transition. Physical Review E, 1999, 60, 4843-4850. | 0.8 | 79 |
| 93 | Heat Conductivity of Amorphous Solids: Simulation Results on Model Structures. Science, 1991, 253, 539-542. | 6.0 | 77 |
| 94 | Field Induced Structural Transition in Mesocrystallites. Physical Review Letters, 1999, 82, 4248-4251. | 2.9 | 77 |
| 95 | Polydimethylsiloxane microfluidic chip with integrated microheater and thermal sensor. Biomicrofluidics, 2009, 3, 12005. | 1.2 | 76 |
| 96 | Dielectric electrorheological fluids: Theory and experiment. Advances in Physics, 2003, 52, 343-383. | 35.9 | 74 |
| 97 | Measurements of sound transmission through panels of locally resonant materials between impedance tubes. Applied Acoustics, 2005, 66, 751-765. | 1.7 | 72 |
| 98 | Terahertz electric response of fractal metamaterial structures. Physical Review B, 2008, 77, . | 1.1 | 71 |
| 99 | Strong optical force induced by morphology-dependent resonances. Optics Letters, 2005, 30, 1956. | 1.7 | 70 |
| 100 | Realization of optical periodic quasicrystals using holographic lithography. Applied Physics Letters, 2006, 88, 051901. | 1.5 | 69 |
| 101 | Generation and manipulation of â€œsmartâ€•droplets. Soft Matter, 2009, 5, 576-581. | 1.2 | 69 |
| 102 | Mechanisms of the giant electrorheological effect. Solid State Communications, 2006, 139, 581-588. | 0.9 | 68 |
| 103 | Electrical properties of carbon-polymer composites. Journal of Electronic Materials, 1982, 11, 699-747. | 1.0 | 66 |
| 104 | Phonon transport in strong-scattering media. Physical Review Letters, 1994, 72, 234-237. | 2.9 | 66 |
| 105 | Energy Velocity of Diffusing Waves in Strongly Scattering Media. Physical Review Letters, 1997, 79, 3166-3169. | 2.9 | 66 |
| 106 | Phononic crystals. Physica Status Solidi (B): Basic Research, 2004, 241, 3454-3462. | 0.7 | 66 |
| 107 | Perspective: Acoustic metamaterials in transition. Journal of Applied Physics, 2018, 123, . | 1.1 | 66 |
| 108 | Brewster Anomalies: A Polarization-Induced Delocalization Effect. Physical Review Letters, 1988, 60, 108-111. | 2.9 | 65 |

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| 109 | Group velocity of acoustic waves in strongly scattering media: Dependence on the volume fraction of scatterers. Physical Review E, 1998, 58, 6626-6636. | 0.8 | 65 |
| 110 | Giant Hall Effect in Nonmagnetic Granular Metal Films. Physical Review Letters, 2001, 86, 5562-5565. | 2.9 | 65 |
| 111 | Minimum wave-localization length in a one-dimensional random medium. Physical Review B, 1986, 34, 4757-4761. | 1.1 | 64 |
| 112 | Optical nonlinearity enhancement via geometric anisotropy. Physical Review E, 1997, 56, R1322-R1325. | 0.8 | 63 |
| 113 | Design and fabrication of microfluidic mixer from carbonyl ironâ€“PDMS composite membrane. Microfluidics and Nanofluidics, 2011, 10, 919-925. | 1.0 | 63 |
| 114 | Theoretical requirements for broadband perfect absorption of acoustic waves by ultra-thin elastic meta-films. Scientific Reports, 2015, 5, 12139. | 1.6 | 62 |
| 115 | Constant-coupling theory of nematic liquid crystals. Physical Review A, 1976, 14, 1883-1894. | 1.0 | 61 |
| 116 | Dynamic flow and switching bistability in twisted nematic liquid crystal cells. Applied Physics Letters, 1997, 71, 596-598. | 1.5 | 61 |
| 117 | Resonant transmission of microwaves through subwavelength fractal slits in a metallic plate. Physical Review B, 2005, 72, . | 1.1 | 61 |
| 118 | Active microfluidic mixer chip. Applied Physics Letters, 2006, 88, 153508. | 1.5 | 61 |
| 119 | Microfluidic Fabrication of Porous Polymer Microspheres: Dual Reactions in Single Droplets. Langmuir, 2009, 25, 7072-7077. | 1.6 | 59 |
| 120 | Conceptual-based design of an ultrabroadband microwave metamaterial absorber. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 59 |
| 121 | Consistent modeling of the electrical and elastic properties of sedimentary rocks. Geophysics, 1991, 56, 1236-1243. | 1.4 | 58 |
| 122 | Superconducting characteristics of 4-â„« carbon nanotubeâ€“zeolite composite. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7299-7303. | 3.3 | 58 |
| 123 | Probing a Random Medium with a Pulse. SIAM Journal on Applied Mathematics, 1989, 49, 582-607. | 0.8 | 57 |
| 124 | Crosstalk noise from multiple thickâ€phase holograms. Journal of Applied Physics, 1977, 48, 681-685. | 1.1 | 56 |
| 125 | Lattice softening in nanometer-size iron particles. Physical Review B, 1991, 44, 11689-11696. | 1.1 | 56 |
| 126 | Anisotropy and oblique total transmission at a planar negative-index interface. Physical Review B, 2003, 68, . | 1.1 | 56 |

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| 127 | Pair-cluster theory for the dielectric constant of composite media. Physical Review B, 1980, 22, 6364-6368. | 1.1 | 55 |
| 128 | Ground States of Magnetorheological Fluids. Physical Review Letters, 1998, 81, 1509-1512. | 2.9 | 55 |
| 129 | Liquid crystal pretilt angle control using nanotextured surfaces. Journal of Applied Physics, 2006, 99, 124506. | 1.1 | 54 |
| 130 | Acoustic wave transmission through a bullâ€™s eye structure. Applied Physics Letters, 2008, 92, . | 1.5 | 54 |
| 131 | Orientational states and phase transitions induced by microtextured substrates. Physical Review E, 1997, 55, 7111-7120. | 0.8 | 53 |
| 132 | Design and integration of an all-in-one biomicrofluidic chip. Biomicrofluidics, 2008, 2, 34103. | 1.2 | 53 |
| 133 | Resonant Raman Scattering of the Smallest Single-Walled Carbon Nanotubes. Physical Review Letters, 2008, 101, 047402. | 2.9 | 53 |
| 134 | Acoustic analog of electromagnetically induced transparency in periodic arrays of square rods. Physical Review E, 2010, 82, 026601. | 0.8 | 52 |
| 135 | Influence of liquid phase on nanoparticle-based giant electrorheological fluid. Nanotechnology, 2008, 19, 165602. | 1.3 | 51 |
| 136 | Localization and backscattering spectrum of seismic waves in stratified lithology. Geophysics, 1990, 55, 1158-1165. | 1.4 | 50 |
| 137 | Optical properties of aggregate clusters. Physical Review B, 1988, 37, 5232-5235. | 1.1 | 48 |
| 138 | Wave localization in random networks. Physical Review B, 1994, 49, 83-89. | 1.1 | 48 |
| 139 | Towards anti-causal Greenâ€™s function for three-dimensional sub-diffraction focusing. Nature Physics, 2018, 14, 608-612. | 6.5 | 48 |
| 140 | Properties of fractal colloid aggregates. Faraday Discussions of the Chemical Society, 1987, 83, 153. | 2.2 | 47 |
| 141 | Hydrodynamic slip boundary condition at chemically patterned surfaces: A continuum deduction from molecular dynamics. Physical Review E, 2005, 72, 022501. | 0.8 | 47 |
| 142 | Micropumps Based on the Enhanced Electroosmotic Effect of Aluminum Oxide Membranes. Advanced Materials, 2007, 19, 4234-4237. | 11.1 | 47 |
| 143 | Novel acoustic excitations in suspensions of hard-sphere colloids. Physical Review Letters, 1990, 65, 2602-2605. | 2.9 | 46 |
| 144 | Multiband subwavelength magnetic reflectors based on fractals. Applied Physics Letters, 2003, 83, 3257-3259. | 1.5 | 46 |

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| 145 | Magnetically responsive elastic microspheres. Applied Physics Letters, 2008, 92, . | 1.5 | 46 |
| 146 | Liquid-Crystal Phase Transitions Induced by Microtextured Substrates. Physical Review Letters, 1996, 77, 4564-4567. | 2.9 | 45 |
| 147 | Single-electron tunneling study of two-dimensional gold clusters. Applied Physics Letters, 2000, 77, 1179-1181. | 1.5 | 45 |
| 148 | Microwave transmission through metallic hole arrays: Surface electric field measurements. Applied Physics Letters, 2006, 89, 131917. | 1.5 | 45 |
| 149 | Graphene Magnetoresistance Device in van der Pauw Geometry. Nano Letters, 2011, 11, 2973-2977. | 4.5 | 45 |
| 150 | Acoustic and electromagnetic quasimodes in dispersed random media. Physical Review A, 1992, 46, 6513-6534. | 1.0 | 44 |
| 151 | Paperlike thermochromic display. Applied Physics Letters, 2007, 90, 213508. | 1.5 | 44 |
| 152 | Ultrasonic wave transport in a system of disordered resonant scatterers: Propagating resonant modes and hybridization gaps. Physical Review B, 2011, 84, . | 1.1 | 44 |
| 153 | Wave localization characteristics in the time domain. Physical Review Letters, 1987, 59, 1918-1921. | 2.9 | 43 |
| 154 | Superconductivity in Bundles of Double-Wall Carbon Nanotubes. Scientific Reports, 2012, 2, 625. | 1.6 | 43 |
| 155 | Direct Measurement of Friction of a Fluctuating Contact Line. Physical Review Letters, 2013, 111, 026101. | 2.9 | 43 |
| 156 | Observation of bending wave localization and quasi mobility edge in two dimensions. Physical Review Letters, 1992, 69, 3080-3083. | 2.9 | 42 |
| 157 | Liquid crystal pretilt control by inhomogeneous surfaces. Physical Review E, 2005, 72, 021711. | 0.8 | 42 |
| 158 | Fabrication of Copper Nanowire Encapsulated in the Pore Channels of SBA-15 by Metal Organic Chemical Vapor Deposition. Journal of Physical Chemistry C, 2007, 111, 12536-12541. | 1.5 | 42 |
| 159 | Soft silicone rubber in phononic structures: Correct elastic moduli. Physical Review B, 2013, 88, . | 1.1 | 42 |
| 160 | An energetic variational approach for ion transport. Communications in Mathematical Sciences, 2014, 12, 779-789. | 0.5 | 42 |
| 161 | Underwater metamaterial absorber with impedance-matched composite. Science Advances, 2022, 8, eabm4206. | 4.7 | 42 |
| 162 | Hybrid Approach to High-Frequency Microfluidic Mixing. Physical Review Letters, 2006, 97, 044501. | 2.9 | 41 |

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| 163 | Multiple-Scattering Noise in One Dimension: Universality through Localization-Length Scaling. Physical Review Letters, 1986, 57, 1000-1003. | 2.9 | 40 |
| 164 | Theory of acoustic excitations in colloidal suspensions. Physical Review Letters, 1991, 66, 1240-1243. | 2.9 | 40 |
| 165 | Theoretical studies on the transmission and reflection properties of metallic planar fractals. Journal Physics D: Applied Physics, 2004, 37, 368-373. | 1.3 | 40 |
| 166 | Acoustic metamaterials. Journal of Applied Physics, 2021, 129, . | 1.1 | 40 |
| 167 | Dynamic rigidity percolation in inverted micelles. Physical Review Letters, 1989, 63, 263-266. | 2.9 | 39 |
| 168 | Localization transition in media with anisotropic diagonal disorder. Physical Review Letters, 1989, 63, 2837-2840. | 2.9 | 39 |
| 169 | Reflectivity of planar metallic fractal patterns. Applied Physics Letters, 2003, 82, 1012-1014. | 1.5 | 39 |
| 170 | Electrorheological fluid-actuated microfluidic pump. Applied Physics Letters, 2006, 89, 083505. | 1.5 | 39 |
| 171 | Giant Electrorheological Effect: A Microscopic Mechanism. Physical Review Letters, 2010, 105, 046001. | 2.9 | 39 |
| 172 | Photonic band gaps from metallo-dielectric spheres. Physica B: Condensed Matter, 2000, 279, 150-154. | 1.3 | 38 |
| 173 | Fano effect of metamaterial resonance in terahertz extraordinary transmission. Applied Physics Letters, 2011, 98, 011911. | 1.5 | 38 |
| 174 | Observation of fluctuation modulation of tunnel junctions by applied ac stress in carbon polyvinylchloride composites. Physical Review B, 1981, 24, 6131-6134. | 1.1 | 37 |
| 175 | Melting transition of small molecular clusters. Journal of Physics C: Solid State Physics, 1981, 14, L565-L569. | 1.5 | 37 |
| 176 | Frequency and water content dependencies of electrorheological properties. Physical Review E, 1997, 55, R1294-R1297. | 0.8 | 37 |
| 177 | Multiple scattering theory and its application to photonic band gap systems consisting of coated spheres. Optics Express, 2001, 8, 203. | 1.7 | 37 |
| 178 | Continuous liquid crystal pretilt control through textured substrates. Applied Physics Letters, 2004, 85, 5556-5558. | 1.5 | 37 |
| 179 | Development of an atomic-force-microscope-based hanging-fiber rheometer for interfacial microrheology. Physical Review E, 2009, 80, 061604. | 0.8 | 37 |
| 180 | Fluctuation-induced tunneling conduction through nanoconstrictions. Physical Review B, 2009, 79, . | 1.1 | 37 |

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| 181 | Fabrication of iron oxide/silica coreâ€“shell nanoparticles and their magnetic characteristics. Journal of Alloys and Compounds, 2012, 543, 43-48. | 2.8 | 37 |
| 182 | â€œGiantâ€•Enhancement of the Upper Critical Field and Fluctuations above the Bulk T<sub>c</sub> in Superconducting Ultrathin Lead Nanowire Arrays. ACS Nano, 2013, 7, 4187-4193. | 7.3 | 37 |
| 183 | Photonic bandtail in 1D randomly-perturbed periodic systems. Optics Communications, 1993, 98, 231-235. | 1.0 | 36 |
| 184 | Wetting-induced electrorheological effect. Journal of Applied Physics, 2006, 99, 106104. | 1.1 | 36 |
| 185 | Electron localization in metal-decorated graphene. Physical Review B, 2011, 84, . | 1.1 | 36 |
| 186 | Microwave and Acoustic Absorption Metamaterials. Physical Review Applied, 2022, 17, . | 1.5 | 36 |
| 187 | Geometric effects in continuous-media percolation. Physical Review B, 1982, 26, 1331-1335. | 1.1 | 35 |
| 188 | Quantum interference and the giant Hall effect in percolating systems. Physical Review B, 2002, 66, . | 1.1 | 35 |
| 189 | Localized and delocalized surface-plasmon-mediated light tunneling through monolayer hexagonal-close-packed metallic nanoshells. Physical Review B, 2009, 80, . | 1.1 | 35 |
| 190 | Regulating Topâ€Surface Multilayer/Singleâ€Crystal Graphene Growth by â€œGetteringâ€•Carbon Diffusion at Backside of the Copper Foil. Advanced Functional Materials, 2017, 27, 1700121. | 7.8 | 35 |
| 191 | The Coulomb quasigap and the metal-insulator transition in granular systems. Journal of Physics C: Solid State Physics, 1984, 17, L93-L96. | 1.5 | 34 |
| 192 | Electrorheological Fluid Dynamics. Physical Review Letters, 2008, 101, 194503. | 2.9 | 33 |
| 193 | Differential effective medium theory of sedimentary rocks. Applied Physics Letters, 1984, 44, 738-740. | 1.5 | 32 |
| 194 | Nematic-isotropic phase transition: An extended mean field theory. Physical Review Letters, 1993, 70, 1271-1274. | 2.9 | 32 |
| 195 | Superconducting resistive transition in coupled arrays of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>4</mml:mn><mml:mspace width="0.2em" /><mml:mtext>Ã…</mml:mtext></mml:mrow></mml:math>carbon nanotubes. Physical Review B, 2010, 81, . | 1.1 | 32 |
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