

ANNEX I

List of papers on metamaterials appeared on PRL (2000-2008)

Papers on MTMs appeared on Physical Review Letters (2000-2008)

<i>Title of the paper</i>	<i>Keywords</i>	<i>Paper code</i>	<i>Year</i>	<i>Effective parameters</i>	<i>Consistency</i>
Plasmon-Induced Transparency in Metamaterials	<i>Plasmon molecule</i>	047401	2008	No	
Quantum Interference Enhancement with Left-Handed Materials	<i>Left-handed</i>	043601	2008	No	
Optical Design of Reflectionless Complex Media by Finite Embedded Coordinate Transformations	<i>Cloaking, Metamaterials</i>	063903	2008	No	
Scattering-Free Plasmonic Optics with Anisotropic Metamaterials	<i>Metamaterials, Plasmonic Materials</i>	066402	2008	No	
Multifrequency Optical Invisibility Cloak with Layered Plasmonic Shells	<i>Cloaking, Metamaterials, Plasmonic</i>	113901	2008	No	
LongWave-ShortWave Resonance in Nonlinear Negative Refractive Index Media	<i>NIM</i>	153905	2008	No	
Electron-Beam Instability in Left-Handed Media	<i>Left-handed</i>	244803	2008	No	
Theory of Negative-Refractive-Index Response of Double-Fishnet Structures	<i>Fishnet, Negative index</i>	103902	2008	No	
Experimental Verification of Overcoming the Diffraction Limit with a Volumetric Veselago-Pendry transmission-Line Lens	<i>Negative refraction, Superresolution</i>	013902	2008	No	
Perfect Metamaterial Absorber	<i>Absorber, Metamaterials</i>	207402	2008	No	
Manipulating Negative-Refractive Behavior with a Magnetic Field	<i>Negative Index</i>	157407	2008	No	
Input Impedance, Nanocircuit Loading, and Radiation Tuning of Optical Nanoantennas	<i>Metamaterials, Nanoantennas</i>	043901	2008	No	
Casimir-Lifshitz Theory and Metamaterials	<i>Metamaterials</i>	183602	2008	No	
Parametrically Shielding Electromagnetic Fields by Nonlinear Metamaterials	<i>Metamaterials</i>	063901	2008	No	
Compact Dielectric Particles as a Building Block for Low-Loss Magnetic Metamaterials	<i>SRRs, Metamaterials</i>	207401	2008	Yes	No
Experimental Demonstration of Isotropic Negative Permeability in a Three-Dimensional Dielectric Composite	<i>Negative Permeability</i>	027402	2008	Yes	Yes
LongWave-ShortWave Resonance in Nonlinear Negative Refractive Index Media	<i>Negative Index</i>	153905	2008	Yes	Incomplete
Experimental Demonstration of Electromagnetic Tunneling Through an Epsilon-Near-Zero Metamaterial at Microwave Frequencies	<i>Epsilon Near Zero, Tunnelling</i>	23903	2008	Yes	Yes
Causality-Based Criteria for a Negative Refractive Index Must Be Used With Care	<i>Negative index</i>	167401	2008	Yes	Yes
Homogenization of Negative-Index Composite Metamaterials: A Two-Step Approach	<i>NIM, SRRs, Metamaterial</i>	037403	2007	No	
Left-Handed Interfaces for Electromagnetic Surface Waves	<i>Metamaterials</i>	073901	2007	No	
Inhomogeneous Dielectric Metamaterials with Space-Variant Polarizability	<i>Metamaterials</i>	243901	2007	No	
Electromagnetic Wave Interactions with a Metamaterial Cloak	<i>Cloaking, Metamaterials</i>	063903	2007	No	
Metamaterial with Simultaneously Negative Bulk Modulus and Mass Density	<i>Metamaterials</i>	093904	2007	No	
Optical Bistability in a Nonlinear Optical Coupler with a Negative Index Channel	<i>NIM</i>	113902	2007	No	
Sharp Trapped-Mode Resonances in Planar Metamaterials with a Broken Structural Symmetry	<i>Metamaterials</i>	147401	2007	No	
Subwavelength Discrete Solitons in Nonlinear Metamaterials	<i>Metamaterials</i>	153901	2007	No	
Suppression of Anderson Localization in Disordered Metamaterials	<i>Left-handed</i>	193902	2007	No	
Manipulating Electromagnetic Wave Polarizations by Anisotropic Metamaterials	<i>Metamaterials</i>	063908	2007	No	
Suppression of Anderson Localization in Disordered Metamaterials	<i>Metamaterials</i>	193902	2007	No	
Guiding, Focusing, and Sensing on the Subwavelength Scale Using Metallic Wire Arrays	<i>Wire Medium</i>	053903	2007	No	
Criterion for Negative Refraction with Low Optical Losses from a Fundamental Principle of Causality	<i>Negative Index</i>	177404	2007	No	
Left-Handed Interfaces for Electromagnetic Surface Waves	<i>Left-handed</i>	073901	2007	No	
Experimental Observation of Left-Handed Behavior in an Array of Standard Dielectric Resonators	<i>LHM</i>	157403	2007	Yes	Incomplete
Simulations of Ferrite-Dielectric-Wire Composite Negative Index Materials	<i>Negative Index, Ferrite, Wire</i>	57202	2007	Yes	Yes
Tunable Negative Refraction without Absorption via Electromagnetically Induced Chirality	<i>Negative Refraction, Transparency</i>	73602	2007	Yes	No
Negative Refraction Observed in a Metallic Ferromagnet in the Gigahertz Frequency Range	<i>Negative Refraction, Ferromagnetic Metal</i>	197401	2007	Yes	No
Design of an Artificial Three-Dimensional Composite Metamaterial with Magnetic Resonances in the Visible Range of the Electromagnetic Spectrum	<i>Nanoparticle, Negative Permeability</i>	17401	2007	Yes	Yes
Effective Mass Density of Fluid-Solid Composites	<i>Metamaterials</i>	024301	2006	No	
Waveguide Arrays as Plasmonic Metamaterials: Transmission below Cutoff	<i>Metamaterials</i>	073904	2006	No	
Tunneling of Electromagnetic Energy through Subwavelength Channels and Bends using ENZ Materials	<i>ENZ, Metamaterials, Near Zero</i>	157403	2006	No	
Discrete Breathers in Nonlinear Magnetic Metamaterials	<i>Metamaterials</i>	157406	2006	No	
Anomalous Light Scattering by Small Particles	<i>Negative Permittivity, Plasma</i>	263902	2006	No	
Waveguide Arrays as Plasmonic Metamaterials: Transmission below Cutoff	<i>Metamaterials</i>	073904	2006	No	
Dynamical Electric and Magnetic Metamaterial Response at Terahertz Frequencies	<i>Splitring resonator</i>	107401	2006	Yes	Incomplete
Dyakonov Surface Waves in Photonic Metamaterials	<i>Refractive Index, Birefringence</i>	013901	2005	No	
Negative Refraction in Ferromagnet-Superconductor Superlattices	<i>Ferromagnet, Lattices, Negative Index</i>	247009	2005	No	
Negative Refraction and Focusing of Circularly Polarized Waves in Optically Active Media	<i>LHM, NIM</i>	123904	2005	No	
Terahertz Response of a Microfabricated Rod-Split-Ring-Resonator Electromagnetic Metamaterial	<i>SRRs, Metamaterial</i>	063901	2005	No	
Theory of Mesoscopic Magnetism in Photonic Crystals	<i>Artificial Magnetism, Metamaterial</i>	183902	2005	No	
Mechanism for Designing Metallic Metamaterials with a High Index of Refraction	<i>Refractive Index, Metamaterials</i>	197401	2005	No	
Total Absorption of an Electromagnetic Wave by an Overdense Plasma	<i>Negative Permittivity, Plasma</i>	165003	2005	No	
Complete Band Gaps in One-Dimensional Left-Handed Periodic Structures	<i>Left-handed</i>	193903	2005	No	
Electromagnetic Surface Modes in Structured Perfect-Conductor Surfaces	<i>Metamaterials</i>	233901	2005	No	
Subwavelength Optical Imaging through a Metallic Nanorod Array	<i>Nanorod</i>	267407	2005	No	
Total Absorption of an Electromagnetic Wave by an Overdense Plasma	<i>Plasma</i>	165003	2005	No	
Circuit Elements at Optical Frequencies: Nanoinductors, Nanocapacitors, and Nanoresistors	<i>Nanocircuit</i>	095504	2005	No	
Terahertz Response of a Microfabricated Rod-Split-Ring-Resonator Electromagnetic Metamaterial	<i>splitring resonator</i>	063901	2005	No	
Magnetic Metamaterials at Telecommunication and Visible Frequencies	<i>Metamaterials</i>	203901	2005	No	
Negative Refraction in Ferromagnet-Superconductor Superlattices	<i>Negative Index</i>	247009	2005	No	
Midinfrared Resonant Magnetic Nanostructures Exhibiting a Negative Permeability	<i>Magnetic Dispersion, Resonance</i>	037402	2005	Yes	Yes
Negative Refraction at Optical Frequencies in Nonmagnetic Two-Component Molecular Media	<i>NIM, Dispersion</i>	067402	2005	Yes	Incomplete
Saturation of the Magnetic Response of Split-Ring Resonators at Optical Frequencies	<i>Magnetic Dispersion, SRRs</i>	223902	2005	Yes	Incomplete
Experimental Demonstration of Near-Infrared Negative-Index Metamaterials	<i>NIM, Metamaterial</i>	137404	2005	Yes	Incomplete

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Terahertz Response of a Microfabricated Rod-Split-Ring-Resonator Electromagnetic Metamaterial	<i>Splitring Resonator</i>	63901	2005	No	
Negative Refraction in Ferromagnet-Superconductor Superlattices	<i>Superconduttor, Negative index</i>	247009	2005	Yes	Incomplete
Negative Magnetic Permeability in the Visible Light Region	<i>Negative Permeability, Splitring Resonator</i>	237401	2005	Yes	Yes
Physics of Propagation in Left-Handed Guided Wave Structures at Microwave and Millimeter-Wave Frequencies	<i>LHM, Dispersion</i>	053901	2004	No	
Negative Refraction and Left-Handed Electromagnetism in Microwave Photonic Crystals	<i>LHM, NIM, Photonic Crystals</i>	127401	2004	No	
Enhanced Diffraction from a Grating on the Surface of a Negative-Index Metamaterial	<i>Negative Index</i>	137405	2004	No	
Engineering the Electromagnetic Properties of Periodic Nanostructures Using Electrostatic Resonance	<i>Metamaterials</i>	243902	2004	No	
Overcoming the Diffraction Limit with a Planar Left-Handed Transmission-Line Lens	<i>Transmission-Line</i>	117403	2004	No	
Near-Perfect Imaging in a Focusing System Based on a Left-Handed-Material Plate	<i>Left-handed</i>	077401	2004	No	
Effective Medium Theory of Left-Handed Materials	<i>Left-handed</i>	107402	2004	No	
Finite-Size Effects of a Left-Handed Material Slab on the Image Quality	<i>Left-handed</i>	107404	2004	No	
Babinet Principle Applied to the Design of Metasurfaces and Metamaterials	<i>Metamaterials</i>	197401	2004	No	
Universal Features of the Time Evolution of Evanescent Modes in a Left-Handed Perfect Lens	<i>LHM, Perfect Lens</i>	077401	2003	No	
Experimental Observations of a Left-Handed Material That Obeys Snell's Law	<i>LHM, NIM</i>	137401	2003	No	
ElectromagneticWave Propagation in Media with Indefinite Permittivity and Permeability Tensors	<i>Metamaterials</i>	077405	2003	No	
Experimental Verification and Simulation of Negative Index of Refraction Using Snell's Law	<i>NIM, SRRs, Scattering Parameters</i>	107401	2003	Yes	Incomplete
Nonlinear Properties of Left-Handed Metamaterials	<i>Non-linearity, Left-handed</i>	(Vol. 91, N. 3)	2003	Yes	Yes
Refraction in Media with a Negative Refractive Index	<i>Photonic Crystals</i>	107402	2002	No	
Electrodynamics of Metallic Photonic Crystals and the Problem of Left-Handed Materials	<i>Photonic Crystals, LHM, Dispersion</i>	093901	2002	No	
Left-Handed-Media Simulation and Transmission of EM Waves in Subwavelength Split-Ring-Resonator-Loaded MetallicWaveguides	<i>LHM, SRRs, Dispersion</i>	183901	2002	No	
Comment on "Left-Handed-Media Simulation and Transmission of EM Waves in Subwavelength Split-Ring-Resonator-Loaded MetallicWaveguides"	<i>LHM, SRRs, Dispersion</i>	249401	2002	No	
Left-Handed-Media Simulation and Transmission of EM Waves in Subwavelength Split-Ring-Resonator-Loaded MetallicWaveguides	<i>Splitring resonator</i>	183901	2002	No	
A Metamaterial for Directive Emission	<i>Metamaterials</i>	(Vol. 89, N. 21)	2002	No	
Left-Handed-Media Simulation and Transmission of EM Waves in Subwavelength Split-Ring-Resonator-Loaded MetallicWaveguides	<i>Left-handed, Splitring Resonator</i>	183901	2002	No	
Power Propagation in Homogeneous Isotropic Frequency-Dispersive Left-Handed Media	<i>Left-handed</i>	257401	2002	No	
Left-Handed Materials Do Not Make a Perfect Lens	<i>Left-handed, Perfect Lens</i>	207403	2002	No	
Wave Refraction in Negative-Index Media: Always Positive and Very Inhomogeneous	<i>NIM, LHM, Dispersion</i>	187401	2002	Yes	Yes
Exchange Forces in Dispersion Relations Investigated Using Circuit Relations	<i>Left-handed</i>	(Vol. 86, N. 15)	2001	No	
Dielectric Metamaterials Based on Electric and Magnetic Resonances of Silicon Carbide Particles	<i>NIM, Electric and Magnetic Resonance</i>	107401	2001	Yes	Yes
Negative Refraction Makes a Perfect Lens	<i>NIM, Perfect Lens</i>	(Vol. 85, N. 18)	2000	No	
Negative Refractive Index in Left-Handed Materials	<i>Negative index</i>	(Vol. 85, N. 14)	2000	Yes	Incomplete
Composite Medium with Simultaneously Negative Permeability and Permittivity	<i>Negative Permeability, Negative Permittivity</i>	(Vol. 84, N. 18)	2000	Yes	Incomplete