

Cristian Neipp

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

1,884
citations

23
h-index

37
g-index

161
ext. papers

2,252
ext. citations

2.5
avg, IF

4.2
L-index

| # | Paper | IF | Citations |
|-----|---|-----|-----------|
| 127 | Polarimetric analysis of cross-talk phenomena induced by the pixelation in PA-LCoS devices. <i>Optics and Laser Technology</i> , 2022 , 152, 108125 | 4.2 | |
| 126 | Validation of Fresnel-Kirchhoff Integral Method for the Study of Volume Dielectric Bodies. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 3800 | 2.6 | |
| 125 | Analytical modeling of blazed gratings on two-dimensional pixelated liquid crystal on silicon devices. <i>Optical Engineering</i> , 2020 , 59, 1 | 1.1 | 4 |
| 124 | Comment on Application of Fresnel diffraction to nondestructive measurement of the refractive index of optical fibers <i>Optical Engineering</i> , 2020 , 59, 1 | 1.1 | 1 |
| 123 | Analysis of the Imaging Characteristics of Holographic Waveguides Recorded in Photopolymers. <i>Polymers</i> , 2020 , 12, | 4.5 | 5 |
| 122 | Accurate, Efficient and Rigorous Numerical Analysis of 3D H-PDLC Gratings. <i>Materials</i> , 2020 , 13, | 3.5 | 1 |
| 121 | Holographic waveguides in photopolymers. <i>Optics Express</i> , 2019 , 27, 827-840 | 3.3 | 15 |
| 120 | Complex Diffractive Optical Elements Stored in Photopolymers. <i>Polymers</i> , 2019 , 11, | 4.5 | 3 |
| 119 | Simplified physical modeling of parallel-aligned liquid crystal devices at highly non-linear tilt angle profiles. <i>Optics Express</i> , 2018 , 26, 12723-12741 | 3.3 | 4 |
| 118 | Holographic Lenses in an Environment-Friendly Photopolymer. <i>Polymers</i> , 2018 , 10, | 4.5 | 11 |
| 117 | Numerical Analysis of H-PDLC Using the Split-Field Finite-Difference Time-Domain Method. <i>Polymers</i> , 2018 , 10, | 4.5 | 3 |
| 116 | Optimization of Photopolymer Materials for the Fabrication of a Holographic Waveguide. <i>Polymers</i> , 2017 , 9, | 4.5 | 10 |
| 115 | Efficient split field FDTD analysis of third-order nonlinear materials in two-dimensionally periodic media 2016 , | | 1 |
| 114 | Dimensional changes in slanted diffraction gratings recorded in photopolymers. <i>Optical Materials Express</i> , 2016 , 6, 3455 | 2.6 | 10 |
| 113 | Split-field finite-difference time-domain method for second-harmonic generation in two-dimensionally periodic structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015 , 32, 664 | 1.7 | 5 |
| 112 | Two diffusion photopolymer for sharp diffractive optical elements recording. <i>Optics Letters</i> , 2015 , 40, 3221-4 | 3 | 13 |
| 111 | Multi-GPU and multi-CPU accelerated FDTD scheme for vibroacoustic applications. <i>Computer Physics Communications</i> , 2015 , 191, 43-51 | 4.2 | 6 |

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| 110 | Influence of the set-up on the recording of diffractive optical elements into photopolymers 2014 , | | 2 |
| 109 | Beta value coupled wave theory for nonslanted reflection gratings. <i>Scientific World Journal, The</i> , 2014 , 2014, 513734 | 2.2 | 1 |
| 108 | Model of low spatial frequency diffractive elements recorded in photopolymers during and after recording. <i>Optical Materials</i> , 2014 , 38, 46-52 | 3.3 | 4 |
| 107 | Performance analysis of SSE and AVX instructions in multi-core CPUs and GPU computing on FDTD scheme for solid and fluid vibration problems. <i>Journal of Supercomputing</i> , 2014 , 70, 514-526 | 2.5 | 5 |
| 106 | Accuracy analysis of simplified and rigorous numerical methods applied to binary nanopatterning gratings in non-paraxial domain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2013 , 377, 2245-2250 | 2.3 | 3 |
| 105 | Development of a unified FDTD-FEM library for electromagnetic analysis with CPU and GPU computing. <i>Journal of Supercomputing</i> , 2013 , 64, 28-37 | 2.5 | 5 |
| 104 | Performance analysis of the FDTD method applied to holographic volume gratings: Multi-core CPU versus GPU computing. <i>Computer Physics Communications</i> , 2013 , 184, 469-479 | 4.2 | 10 |
| 103 | Analysis of holographic reflection gratings recorded in polyvinyl alcohol/acrylamide photopolymer. <i>Applied Optics</i> , 2013 , 52, 1581-90 | 1.7 | 4 |
| 102 | Acceleration of split-field finite difference time-domain method for anisotropic media by means of graphics processing unit computing. <i>Optical Engineering</i> , 2013 , 53, 011005 | 1.1 | 9 |
| 101 | SPLIT-FIELD FINITE-DIFFERENCE TIME-DOMAIN SCHEME FOR KERR-TYPE NONLINEAR PERIODIC MEDIA. <i>Progress in Electromagnetics Research</i> , 2013 , 134, 559-579 | 3.8 | 7 |
| 100 | Educational Software for Interference and Optical Diffraction Analysis in Fresnel and Fraunhofer Regions Based on MATLAB GUIs and the FDTD Method. <i>IEEE Transactions on Education</i> , 2012 , 55, 118-125 ¹ | 2.1 | 18 |
| 99 | Biophotopol: A Sustainable Photopolymer for Holographic Data Storage Applications. <i>Materials</i> , 2012 , 5, 772-783 | 3.5 | 17 |
| 98 | Volume Holograms in Photopolymers: Comparison between Analytical and Rigorous Theories. <i>Materials</i> , 2012 , 5, 1373-1388 | 3.5 | 11 |
| 97 | Analysis of periodic anisotropic media by means of split-field FDTD method and GPU computing 2012 , | | 4 |
| 96 | Zero Spatial Frequency Limit: Method to Characterize Photopolymers as Optical Recording Material. <i>Research Letters in Physics</i> , 2012 , 2012, 1-9 | | 2 |
| 95 | Comparison of simplified theories in the analysis of the diffraction efficiency in surface-relief gratings 2012 , | | 6 |
| 94 | Analysis of the diffraction efficiency of reflection and transmission holographic gratings by means of a parallel FDTD approach 2011 , | | 1 |
| 93 | Comparison of photopolymers for optical data storage applications and relief diffractive optical elements recorded onto photopolymers 2011 , | | 1 |

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| 92 | ANALYSIS OF REFLECTION GRATINGS BY MEANS OF A MATRIX METHOD APPROACH. <i>Progress in Electromagnetics Research</i> , 2011 , 118, 167-183 | 3.8 | 6 |
| 91 | Performance improvement of high-thickness photopolymers for holographic data storage applications 2011 , | | 1 |
| 90 | An experiment in heat conduction using hollow cylinders. <i>European Journal of Physics</i> , 2011 , 32, 1065-1073 | 3.8 | 5 |
| 89 | Birefringence of cello tape: Jones representation and experimental analysis. <i>European Journal of Physics</i> , 2010 , 31, 551-561 | 0.8 | 12 |
| 88 | Rigorous interference and diffraction analysis of diffractive optic elements using the finite-difference time-domain method. <i>Computer Physics Communications</i> , 2010 , 181, 1963-1973 | 4.2 | 11 |
| 87 | Approximate solutions of a nonlinear oscillator typified as a mass attached to a stretched elastic wire by the homotopy perturbation method. <i>Chaos, Solitons and Fractals</i> , 2009 , 39, 746-764 | 9.3 | 19 |
| 86 | Linear response deviations during recording of diffraction gratings in photopolymers. <i>Optics Express</i> , 2009 , 17, 13193-201 | 3.3 | 8 |
| 85 | Analysis of PVA/AA based photopolymers at the zero spatial frequency limit using interferometric methods. <i>Applied Optics</i> , 2008 , 47, 2557-63 | 1.7 | 13 |
| 84 | Higher-order approximate solutions to the relativistic and Duffing-harmonic oscillators by modified He's homotopy methods. <i>Physica Scripta</i> , 2008 , 77, 025004 | 2.6 | 16 |
| 83 | Direct analysis of monomer diffusion times in polyvinyl/acrylamide materials. <i>Applied Physics Letters</i> , 2008 , 92, 073306 | 3.4 | 24 |
| 82 | Higher accuracy analytical approximations to a nonlinear oscillator with discontinuity by He's homotopy perturbation method. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008 , 372, 2010-2016 | 2.3 | 29 |
| 81 | Solution of the relativistic (an)harmonic oscillator using the harmonic balance method. <i>Journal of Sound and Vibration</i> , 2008 , 311, 1447-1456 | 3.9 | 14 |
| 80 | Application of He's homotopy perturbation method to conservative truly nonlinear oscillators. <i>Chaos, Solitons and Fractals</i> , 2008 , 37, 770-780 | 9.3 | 61 |
| 79 | Analysis of multiplexed holograms stored in a thick PVA/AA photopolymer. <i>Optics Communications</i> , 2008 , 281, 1480-1485 | 2 | 8 |
| 78 | Exact solution for the nonlinear pendulum. <i>Revista Brasileira De Ensino De Fisica</i> , 2007 , 29, 645-648 | 0.4 | 47 |
| 77 | Analysis of monomer diffusion in depth in photopolymer materials. <i>Optics Communications</i> , 2007 , 274, 43-49 | 2 | 15 |
| 76 | Pyromethene dye and non-redox initiator system in a hydrophilic binder photopolymer. <i>Optical Materials</i> , 2007 , 30, 227-230 | 3.3 | 6 |
| 75 | Asymptotic representations of the period for the nonlinear oscillator. <i>Journal of Sound and Vibration</i> , 2007 , 299, 403-408 | 3.9 | 12 |

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| 74 | Application of the harmonic balance method to a nonlinear oscillator typified by a mass attached to a stretched wire. <i>Journal of Sound and Vibration</i> , 2007 , 302, 1018-1029 | 3.9 | 75 |
| 73 | Comments on Investigation of the properties of the period for the nonlinear oscillator $x\ddot{+}(1+x^2)x=0$ <i>Journal of Sound and Vibration</i> , 2007 , 303, 925-930 | 3.9 | 13 |
| 72 | Application of a modified He's homotopy perturbation method to obtain higher-order approximations of an $x^{1/3}$ force nonlinear oscillator. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007 , 371, 421-426 | 2.3 | 78 |
| 71 | Application of the homotopy perturbation method to the nonlinear pendulum. <i>European Journal of Physics</i> , 2007 , 28, 93-104 | 0.8 | 63 |
| 70 | Post-Buckling of a Cantilever Column: A More Accurate Linear Analysis of a Classical Nonlinear Problem. <i>International Journal of Mechanical Engineering Education</i> , 2007 , 35, 293-304 | 0.6 | 3 |
| 69 | Accurate control of a liquid-crystal display to produce a homogenized Fourier transform for holographic memories. <i>Optics Letters</i> , 2007 , 32, 2511-3 | 3 | 10 |
| 68 | Improved maximum uniformity and capacity of multiple holograms recorded in absorbent photopolymers. <i>Optics Express</i> , 2007 , 15, 9308-19 | 3.3 | 9 |
| 67 | Real-time interferometric characterization of a polyvinyl alcohol based photopolymer at the zero spatial frequency limit. <i>Applied Optics</i> , 2007 , 46, 7506-12 | 1.7 | 16 |
| 66 | Analysis of amplitude and phase coupling in volume holography 2006 , 6252, 338 | | |
| 65 | Temporal response and first order volume changes during grating formation in photopolymers. <i>Journal of Applied Physics</i> , 2006 , 99, 113105 | 2.5 | 21 |
| 64 | Analytical approximations for the period of a nonlinear pendulum. <i>European Journal of Physics</i> , 2006 , 27, 539-551 | 0.8 | 79 |
| 63 | Effect of the glass substrate on the efficiency of the different orders that propagate in a transmission sinusoidal diffraction grating. <i>Journal of Modern Optics</i> , 2006 , 53, 1403-1410 | 1.1 | |
| 62 | 3-dimensional characterization of thick grating formation in PVA/AA based photopolymer. <i>Optics Express</i> , 2006 , 14, 5121-8 | 3.3 | 25 |
| 61 | Examination of the temporal and kinetic effects in acrylamide based photopolymer using the nonlocal polymer driven diffusion model (NPDD) 2006 , 6252, 51 | | |
| 60 | 3-dimensional analysis of holographic memories based on photopolymers using finite differences method 2006 , 6187, 307 | | |
| 59 | Grating matrix method to describe a volume transmission diffraction grating. <i>Optics Communications</i> , 2006 , 266, 122-128 | 2 | 1 |
| 58 | Effect of the incorporation of N,N'-methylene-bis-acrylamide on the multiplexing of holograms in a hydrophilic acrylamide photopolymer. <i>Optics Communications</i> , 2006 , 268, 133-137 | 2 | 5 |
| 57 | High-efficiency volume holograms recording on acrylamide and N,N'-methylene-bis-acrylamide photopolymer with pulsed laser. <i>Journal of Modern Optics</i> , 2005 , 52, 1575-1584 | 1.1 | 16 |

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| 56 | Clarifications to the paper "Holographic characteristics of a 1-mm-thick photopolymer to be used in holographic memories". <i>Applied Optics</i> , 2005 , 44, 1448 | 1.7 | 3 |
| 55 | Characterization of polyvinyl alcohol/acrylamide holographic memories with a first-harmonic diffusion model. <i>Applied Optics</i> , 2005 , 44, 6205-10 | 1.7 | 14 |
| 54 | Holographic photopolymer materials: nonlocal polymerization-driven diffusion under nonideal kinetic conditions. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005 , 22, 407 | 1.7 | 69 |
| 53 | Physical and effective optical thickness of holographic diffraction gratings recorded in photopolymers. <i>Optics Express</i> , 2005 , 13, 1939-47 | 3.3 | 51 |
| 52 | 3 Dimensional analysis of holographic photopolymers based memories. <i>Optics Express</i> , 2005 , 13, 3543-57 | 3.3 | 36 |
| 51 | Temporal analysis of grating formation in photopolymer using the nonlocal polymerization-driven diffusion model. <i>Optics Express</i> , 2005 , 13, 6990-7004 | 3.3 | 75 |
| 50 | Temporal and non-ideal behavior in photopolymers 2005 , | | 2 |
| 49 | Holographic Characteristics of an Acrylamide/Bisacrylamide Photopolymer in 40 μ m Thick Layers. <i>Physica Scripta</i> , 2005 , 66 | 2.6 | 12 |
| 48 | Analysis of Second and Third Diffracted Orders in Volume Diffraction Gratings Recorded on Photopolymers. <i>Physica Scripta</i> , 2005 , 58 | 2.6 | 6 |
| 47 | Maximum effective optical thickness of the gratings recorded in photopolymers 2005 , | | 2 |
| 46 | Numerical and Experimental Analysis of Large Deflections of Cantilever Beams Under a Combined Load. <i>Physica Scripta</i> , 2005 , 61 | 2.6 | 23 |
| 45 | Comparative study of bleaches applied to BB-640 plates. <i>Journal of Optics</i> , 2004 , 6, 71-76 | | |
| 44 | Stabilization of volume gratings recorded in polyvinyl alcohol-acrylamide photopolymers with diffraction efficiencies higher than 90%. <i>Journal of Modern Optics</i> , 2004 , 51, 491-503 | 1.1 | 12 |
| 43 | An Integrated Project for Teaching the Post-Buckling of a Slender Cantilever Bar. <i>International Journal of Mechanical Engineering Education</i> , 2004 , 32, 78-92 | 0.6 | 4 |
| 42 | Stabilization of volume gratings recorded in polyvinyl alcohol-acrylamide photopolymers with diffraction efficiencies higher than 90%. <i>Journal of Modern Optics</i> , 2004 , 51, 491-503 | 1.1 | 6 |
| 41 | Effect of a depth attenuated refractive index profile in the angular responses of the efficiency of higher orders in volume gratings recorded in a PVA/acrylamide photopolymer. <i>Optics Communications</i> , 2004 , 233, 311-322 | 2 | 23 |
| 40 | Thin and thick diffraction gratings: Thin matrix decomposition method. <i>Optik</i> , 2004 , 115, 385-392 | 2.5 | |
| 39 | Depth attenuated refractive index profiles in holographic gratings recorded in photopolymer materials 2004 , 5456, 449 | | |

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| 38 | Optimization of a PVA/acrylamide material for the recording of multiple diffraction gratings 2004 , | | 1 |
| 37 | Space-variant image processing with volume holography 2004 , 5456, 315 | | |
| 36 | High-efficiency volume holograms recording on acrylamide and N,N'methylene-bis-acrylamide photopolymer with pulsed laser 2004 , | | 1 |
| 35 | Three approaches to calculating the velocity profile of a laminar incompressible fluid flow in a hollow tube. <i>American Journal of Physics</i> , 2003 , 71, 46-48 | 0.7 | 1 |
| 34 | Thick phase holographic gratings recorded on BB-640 and PFG-01 silver halide materials. <i>Journal of Optics</i> , 2003 , 5, S183-S188 | | 4 |
| 33 | Holographic photopolymer materials with nonlocal and nonlinear response 2003 , 5216, 127 | | 7 |
| 32 | Comparison between a thin matrix decomposition method and the rigorous coupled wave theory applied to volume diffraction gratings. <i>Optik</i> , 2003 , 114, 529-534 | 2.5 | 2 |
| 31 | Optimization of a 1 mm thick PVA/acrylamide recording material to obtain holographic memories: method of preparation and holographic properties. <i>Applied Physics B: Lasers and Optics</i> , 2003 , 76, 851-857 ¹⁹ | | 64 |
| 30 | Overmodulation effects in volume holograms recorded on photopolymers. <i>Optics Communications</i> , 2003 , 215, 263-269 | 2 | 31 |
| 29 | Characterization of a PVA/acrylamide photopolymer. Influence of a cross-linking monomer in the final characteristics of the hologram. <i>Optics Communications</i> , 2003 , 224, 27-34 | 2 | 29 |
| 28 | Influence of the fringe visibility on the characteristics of holograms recorded in photopolymer material. <i>Optik</i> , 2003 , 114, 401-406 | 2.5 | 4 |
| 27 | Diffusion-based model to predict the conservation of gratings recorded in poly(vinyl alcohol)-acrylamide photopolymer. <i>Applied Optics</i> , 2003 , 42, 5839-45 | 1.7 | 9 |
| 26 | Holographic characteristics of a 1-mm-thick photopolymer to be used in holographic memories. <i>Applied Optics</i> , 2003 , 42, 7008-12 | 1.7 | 31 |
| 25 | Edge-enhanced imaging with polyvinyl alcohol/acrylamide photopolymer gratings. <i>Optics Letters</i> , 2003 , 28, 1510-2 | 3 | 26 |
| 24 | First-harmonic diffusion-based model applied to a polyvinyl-alcohol/acrylamide-based photopolymer. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003 , 20, 2052 | 1.7 | 36 |
| 23 | Temporal evolution of the angular response of a holographic diffraction grating in PVA/acrylamide photopolymer. <i>Optics Express</i> , 2003 , 11, 181-90 | 3.3 | 21 |
| 22 | Angular responses of the first and second diffracted orders in transmission diffraction grating recorded on photopolymer material. <i>Optics Express</i> , 2003 , 11, 1835-43 | 3.3 | 40 |
| 21 | Non-local polymerization driven diffusion based model: general dependence of the polymerization rate to the exposure intensity. <i>Optics Express</i> , 2003 , 11, 1876-86 | 3.3 | 12 |

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|----|--|-----|-----|
| 20 | An analysis of the classical Doppler effect. <i>European Journal of Physics</i> , 2003 , 24, 497-505 | 0.8 | 9 |
| 19 | Experimental evidence of mixed gratings with a phase difference between the phase and amplitude grating in volume holograms. <i>Optics Express</i> , 2002 , 10, 1374-83 | 3.3 | 18 |
| 18 | Mechanism of hologram formation in fixation-free rehalogenating bleaching processes. <i>Applied Optics</i> , 2002 , 41, 4092-103 | 1.7 | 2 |
| 17 | Determination of the refractive index and thickness of holographic silver halide materials by use of polarized reflectances. <i>Applied Optics</i> , 2002 , 41, 6802-8 | 1.7 | 8 |
| 16 | Large and small deflections of a cantilever beam. <i>European Journal of Physics</i> , 2002 , 23, 371-379 | 0.8 | 147 |
| 15 | Mixed phase-amplitude holographic gratings recorded in bleached silver halide materials. <i>Journal Physics D: Applied Physics</i> , 2002 , 35, 957-967 | 3 | 12 |
| 14 | Bleached silver halide volume holograms recorded on Slavich PFG-01 emulsion: The influence of the developer. <i>Journal of Modern Optics</i> , 2001 , 48, 1479-1494 | 1.1 | 2 |
| 13 | Theoretical and experimental analysis of overmodulation effects in volume holograms recorded on BB-640 emulsions. <i>Journal of Optics</i> , 2001 , 3, 504-513 | | 16 |
| 12 | Fixation-free bleached silver halide transmission holograms recorded on Slavich PFG-01 red sensitive plates. <i>Journal of Modern Optics</i> , 2001 , 48, 1643-1655 | 1.1 | 7 |
| 11 | Silver halide volume holograms on BB-640 plates: The influence of the developer in rehalogenating bleach techniques. <i>Optik</i> , 2001 , 112, 349-357 | 2.5 | |
| 10 | Effects of overmodulation in fixation-free rehalogenating bleached holograms. <i>Applied Optics</i> , 2001 , 40, 3402-8 | 1.7 | 6 |
| 9 | Optimization of fixation-free rehalogenating bleach for BB-640 holographic plates 2000 , 4149, 91 | | |
| 8 | Fixation-free rehalogenating bleached reflection holograms recorded on BB-640 plates. <i>Optics Communications</i> , 2000 , 182, 107-114 | 2 | 5 |
| 7 | The influence of the development in silver halide sensitized gelatin holograms derived from PFG-01 plates. <i>Optics Communications</i> , 2000 , 173, 161-167 | 2 | 8 |
| 6 | Optimization of a fixation-free rehalogenating bleach for BB-640 holographic emulsion. <i>Journal of Modern Optics</i> , 2000 , 47, 1671-1679 | 1.1 | 10 |
| 5 | Silver halide sensitized gelatin holograms in Slavich PFG-01 red-sensitive emulsion. <i>Journal of Modern Optics</i> , 1999 , 46, 1913-1925 | 1.1 | 9 |
| 4 | Silver halide sensitized gelatin derived from BB-640 holographic emulsion. <i>Applied Optics</i> , 1999 , 38, 1348-56 | 1.7 | 15 |
| 3 | Analysis and elimination of boundary reflections in transmission holograms. <i>Optics and Laser Technology</i> , 1998 , 30, 555-560 | 4.2 | 3 |

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|---|---|-----|----|
| 2 | Improved spatial frequency response in silver halide sensitized gelatin holograms. <i>Optics Communications</i> , 1998 , 155, 241-244 | 2 | 4 |
| 1 | High-efficiency silver-halide sensitized gelatin holograms with low absorption and scatter. <i>Journal of Modern Optics</i> , 1998 , 45, 1985-1992 | 1.1 | 16 |