

# ISI Publications.

2017

1-“Fabrication methods of plasmonic and magnetoplasmonic crystals: a review”, F Sohrabi, SM Hamidi, THE EUROPEAN PHYSICAL JOURNAL P LUS 132 (15), 1-22.

2-“Harmonic detection of magnetic resonance for sensitivity improvement of optical atomic magnetometers”, M Ranjbaran, MM Tehranchi, SM Hamidi, SMH Khalkhali, Journal of Magnetism and Magnetic Materials 424, 284-290.

3-“Improvement of the spin polarization lifetime in the 85 Rb vapor cell by octadecyltrichlorosilane coating”, SMH Khalkhali, M Ranjbaran, D Mofidi, SM Hamidi, MM Tehranchi, Chinese Journal of Physics.

4-“Thermoelastic-tunable magnetic response of BiFeO<sub>3</sub> thin film on colloidal photonic crystal substrate fabricated by pulsed laser deposition”, ZS Azizi, MM Tehranchi, SM Hamidi, SH Vakili, S Poormahdian, physica status solidi (a) 214 (2).

5- “New generation of one-dimensional photonic crystal cavities as robust high-efficient frequency converter”, TS Parvini, MM Tehranchi, SM Hamidi, Photonics and Nanostructures-Fundamentals and Applications.

6-“Optical detection of brain activity using plasmonic ellipsometry technique”, F Sohrabi, SM Hamidi, Sensors and Actuators B: Chemical 251, 153-163.

7-“Effects of square-wave magnetic fields on synchronization of nonlinear spin precession for sensitivity improvement of M X magnetometers”, M Ranjbaran, MM Tehranchi, SM Hamidi, SMH Khalkhali, Journal of Magnetism and Magnetic Materials.

8-“All optical fan out able half adder circuit based on nonlinear directional coupler”, A Adami, SM Hamidi, K Navi, M

Hosseinzade, Optik-International Journal for Light and Electron Optics.

9-“Plasmon-exciton induced circular dichroism in Gold/PMMA (RB) complex”, SM Hamidi, F Jafari, S Behjati, F Sohrabi, Journal of Materials Science: Materials in Electronics, 1-9.

10- [Engineered magneto-optical response of cobalt ferrite thin films deposited on self-assembled colloidal crystal](#), ZS Azizi, MM Tehranchi, SM Hamidi, SH Vakili, S Pourmahdian, Thin Solid Films 638, 81-88.

11- [Localized to Propagating Surface Plasmon Resonance Transition in Ni-Au Magneto-Plasmonic Gratings](#), MA Oskuei, SM Hamidi, Journal of Superconductivity and Novel Magnetism, 1-5.

2016

1- *“Enhanced magneto-plasmonic activity of cobalt layer perforated by Au nanostructures”*, S. M. Hamidi, M. Mosleh, N. Rajab, A. H. Baradaran Ghasemi, J. of superconductivity and novel magnetism, 29,771 (2016).

2- *“Hydrogen gas sensor based on long-range plasmons in lossy palladium film placed on photonic crystal stack”*, S. M. Hamidi, R. Ramezani, Optical materials, 53,201, (2016).

3- *Effect of cerium substitution on microstructure and Faraday rotation of  $Ce_x Y_{3-x} Fe_{50} Co_{12}$  thin films*, SM Shahrokhvand, M Mozaffari, ASH Rozatian, SM Hamidi, Applied Physics A 122 (1), 1-5(2016)

4- *Enhanced magneto-plasmonic effect in Au/Co/Au multilayers caused by exciton-plasmon strong coupling*, S. M. Hamidi, O. Ghaebi, Journal of magnetism and magnetic materials, 414, 122 (2016)

5- *A new design procedure for all-optical photonic crystal*

*logic gates and functions based on threshold logic, H. Sharifi, S. M. Hamidi, K. Navi, Optics communications, 370, 231 (2016)*

6-Magneto-plasmonic study of aligned Ni, Co and Ni/Co multilayer in polydimethylsiloxane as magnetic field sensor, SM Hamidi, B Mosaei, M Afsharnia, A Aftabi, M Najafi, Journal of Magnetism and Magnetic Materials 417, 413-419.

7-Photonic crystal power combiner based on hexagonal waveguides, M Zahednamazi, A Alikhani, SM Hamidi, Optik-International Journal for Light and Electron Optics 127 (20), 8600-8603.

8-Neuroplasmonics: From Kretschmann configuration to plasmonic crystals, F Sohrabi, SM Hamidi, The European Physical Journal Plus 131 (7), 1-15.

9-A new design procedure for all optical photonic crystal logic gates and functions based on threshold logic, H Sharifi, M Hamidi, seyedeh, K Navi, optics communications 370, 231-238.

2015

1- *"One-step construction and examination of one-dimensional plasmonic chromium nano-grating"*, Hamidi, S., M. Zamani and H. Goudarzi, *Optics Communications* , 345(0): 47-51 (2015).

2- *"Optical and magneto-optical properties of aligned Ni nanowires embedded in polydimethylsiloxane."*, Hamidi, S. M., A. Sobhani, A. Aftabi and M. Najafi , *Journal of Magnetism and Magnetic Materials*, 374(0): 139-143 (2015).

3- *"Fabrication and Characterization of a Microwave Filter Based on a Nanowire-Supported Magnetic Photonic Band Gap Material"*, SM Hamidi, A Sobhani, A Aftabi , *Journal of Superconductivity and Novel Magnetism* 28 (12), 3565-3569

- 4- "One dimensional tunable Coupled Resonator Optical Waveguide based on Liquid-Crystal layers", M Oraie, SM Hamidi, H Latifi ,Optik-International Journal for Light and Electron Optics 126 (21), 2891-2894
- 5- "Room temperature photoinduced magnetism in  $[py. H]_3 [FeCl_4]_2 Cl$ ", F Baniasadi, MM Tehranchi, MB Fathi, SM Hamidi, N Safari, V Amani ,Materials Chemistry and Physics
- 6- "Kolakoski sequence as an element to radiate giant forward and backward second harmonic signals", TS Parvini, MM Tehranchi, SM Hamidi, S Sarkarati,Journal of Applied Physics 118 (18), 183108
- 7- "Use of nanostructures based on silver nanospike prepared by oblique angle deposition as broadband optical polarizer", SM Hamidi, M Zamani,Journal of Superconductivity and Novel Magnetism 28 (5), 1565-1569
- 8- "Enhanced optically induced magnetization due to inverse Faraday effect in plasmonic nanostructures", SM Hamidi, M Razavinia, MM Tehranchi,Optics Communications 338, 240-245
- 9- "Optical RNS adder and multiplier",LA Bakhtiar, E Yaghoubi, SM Hamidi, M Hosseinzadeh,International Journal of Computer Applications in Technology 52 (1), 71-76
- 10- " Surface Plasmon Resonance Magneto-Optical Kerr Effect in Au/Co/Au Magneto-Plasmonic Multilayer", S. M. Hamidi, H. Goudarzi, S. Sadeghi, J. of superconductivity and novel magnetism, 28, 1565 (2015).
- 11- "Giant enhancement of second harmonic generation in one-dimensional defective nonlinear photonic crystals", T. S. Parvini, M. M. Tehranchi, S. M. Hamidi, Applied physics A: materials science and processing, 118, 1447 (2015).
- 12- "Ac magneto-electric measurement of Cobalt ferrite/Barium titanate thin fim", S. M. H. Khalkhali, S. Salimian, S. M.

*Hamidi, M. M. Tehranchi, submitted to European physical journal B, 2015.*

2014

- 1- *"Design of 1\*3 Power splitter based on photonic crystal ring resonator"*, F. Sohrabi, T. Mahinroosta, S. M. Hamidi, *Optical engineering*, 53 (11), 115104 (2014).
- 2- *"Surface Plasmon Resonance Magneto-Optical Kerr Effect in Au/Co/Au Magneto-Plasmonic Multilayer"*, S. M. Hamidi, H. Goudarzi, S. Sadeghi, *Journal of Superconductivity and Novel Magnetism*: 1-5. 2014.
- 3-*"Magneto-plasmonic enhanced in cobalt thin film incorporating core shell Ag@Au nanoparticles"*, S. M. Hamidi, M. Oskuie, *Journal of Superconductivity and novel magnetism*. 27 (6), 1469 (2014).
- 4-*"Photo-magnetic assisted ferroelectric polarization in magneto-electric BiFeO<sub>3</sub>/BaTiO<sub>3</sub> thin film"*, S. M. Khalkhali, M. M. Tehranchi, S. M. Hamidi, *Journal of magnetism and magnetic materials*, 355, 188-191 (2014).
- 5-*"Adjustable surface Plasmon resonance with Au, Ag and Ag@Au core-shell nanoparticles"*, S. M. Hamidi, M. Oskuie, *Chinese Optics Letters*, 12 (3), 031601 (2014).
- 6-*"All optical OR/AND/XOR gates based on nonlinear directional coupler."*, Yaghoubi, E., L. Bakhtiar, A. Adami, S. Hamidi and M. Hosseinzadeh, *A. Journal of Optics* 43(2): 146-153 (2014).
- 7- *"Photo-magnetic assisted ferroelectric polarization in magneto-electric BiFeO<sub>3</sub>/BaTiO<sub>3</sub> thin film"*, S. M. Khalkhali, M. M. Tehranchi, S. M. Hamidi, *Journal of magnetism and magnetic materials*, 355, 188-191 (2014).
- 8 – *"Optical RNS adder and multiplier"*, L. A. Bakhtiar, E.

Yaghoubi, S. M. Hamidi, M. Hoseinzadeh, *International Journal of computer applications in technology*, 2014.

2013

- 1- "*Effect of bismuth on improvement of Faraday Effect in YFeO<sub>3</sub> Thin Films Grown by PLD*" A. Beiranvand, S. M. Hamidi, Z. Aboalizadeh, M. Mozaffari, J. Amighian, M. M. Tehrani and A. Yousif, *Life Science Journal*;10(2s) (2013).
- 2- "*Magneto-electric Effect in Ba<sub>0.5</sub>Sr<sub>0.5</sub>TiO<sub>3</sub> /CoFe<sub>2</sub>O<sub>4</sub> multilayer Prepared by Pulsed Laser Deposition Method*", S. M. Khalkhali, M. M. Tehrani, S. M. Hamidi, *Journal of Superconductivity and novel magnetism*. 27 (2), 565-567 (2013).
- 3- "*Enhanced Polar Magneto-optical Kerr rotation in Cobalt thin film incorporating Ag nanoparticles*", S. M. Hamidi, M. A. Oskuie, S. Sadeghi, M. M. Tehrani, *Journal of Superconductivity and novel magnetism*, 26 (10), .860 (2013).
- 4- "*Contribution of Au nanoparticles to longitudinal magneto-optical kerr effect of Bragg reflector based magneto-plasmonic multilayers*", S. M. Hamidi, H. Normhamadi, M. M. Tehrani, *J. Optics and Laser Technology*, 49, 237–242 (2013).
- 5- "*Optical Bistability in One-dimensional Coupled Resonator Nonlinear Optical Waveguide*", S. M. Hamidi, Z. Eslamiat, *Journal of Nonlinear Optical Physics & Materials* , 22(1), 1350003 (2013).
- 6- M. Hamidi, Z. Eslamiat, *J. Nonlinear Optic. Phys. Mat.* 22, 1350003 (2013) [15 pages] DOI: 10.1142/S0218863513500033
- 7- "*Three-input majority function with nonlinear material in all-optical domain.*", Bakhtiar, L., E. Yaghoubi, A. Adami, S. Hamidi and M. Hosseinzadeh, *Journal of Nonlinear Optical Physics & Materials* , *Journal of Optics* 42(4): 349-354. (2013).

8- *"All-optical parity circuits using nonlinear directional coupler."*, Bakhtiar, L., E. Yaghoubi, A. Adami, S. Hamidi and M. Hosseinzadeh , International Journal of Modern Education and Computer Science (IJMECS) 5(5): 68 (2013).

2012

1- *"Efficient Second Harmonic Generation through One-dimensional Coupled Resonator Poled Nonlinear Optical Waveguide"*, S. M. Hamidi, T. Parvini, M. M. Tehranchi, Applied physics A, 111, 525 (2012).

2- S. M. Hamidi, M. M. Tehranchi, " Longitudinal magneto-optical Kerr effect in magneto-plasmonic heterostructures", Journal of Superconductivity and novel magnetism 26 (5), 1585-1587 (2012).

3-*"Determination of atomic number density of Rb vapor by using spectral Faraday rotation measurement"*, M. M. Tehranchi, S. M. Hamidi, B. Abaie, J. Korean physical Society 62 (5), 731-733 (2012).

4- *"Growth-induced magnetic anisotropy behavior in thin garnet films fabricated by pulsed laser deposition"*, M. M. Tehranchi, S. M. Hamidi, Applied physics A, 109, 169 (2012).

5- *"Preparation and investigation of Ce : YIG thin films with a high magneto-optical figure of merit"*, S M Shahrokhvand, A S H Rozatian, M Mozaffari, S. M Hamidi and M M Tehranchi, J. Phys. D: Appl. Phys. 45 (2012) 235001.

6- *"Growth-induced magnetic anisotropy behavior in thin garnet films fabricated by pulsed laser deposition"*, M. M. Tehranchi, S. M. Hamidi, Applied physics A, 109, 169 (2012).

7- *"Preparation and investigation of Ce : YIG thin films with a high magneto-optical figure of merit"*, S M Shahrokhvand, A S H Rozatian, M Mozaffari, S. M Hamidi and M M Tehranchi, J. Phys. D: Appl. Phys. 45 (2012) 235001.

- 8- *"Tunable Optical Properties in Tilted Engineered One-dimensional Coupled Resonator Optical Waveguides"*, S. M. Hamidi, A. Bananej, M.M. Tehranchi, *J. Optics and laser technology*, 44 (5), 1556-1563 (2012).
- 9- *" Magneto-optical Faraday rotation in Ce: YIG thin films incorporating Gold nanoparticles"*, S. M. Hamidi, M.M. Tehranchi, *J. Superconductivity and Novel magnetism*, 25 (8), 2713-2717 (2012).
- 10- *"Optical and Magneto-optical Properties of One-dimensional Magnetized Coupled Resonator Plasma Photonic Crystals"*, S. M. Hamidi, *Phys. Plasmas* 19, 012503 (2012); doi:10.1063/1.3677263 (8 pages).
- 12- *"Cavity Enhanced Longitudinal Magneto-Optical Kerr effect in Magneto-Plasmonic Multilayers Consist of Ce: YIG thin films incorporating Gold nanoparticles"*, S. M. Hamidi, M. M. Tehranchi, *J. Superconductivity and novel magnetism*, 25 (6), 2097-2100 (2012), DOI 10.1007/s10948-012-1591-4.
- 13- *"Longitudinal magneto-optical Kerr effect in magneto-plasmonic heterostructures"*, S. M. Hamidi, M. M. Tehranchi, *Journal of Superconductivity and novel magnetism* 26 (5), 1585-1587 (2012).

#### 2011

- 1- *"The Inspection of Magnetic Flux Leakage from Metal Surface Cracks by Magneto-optical Sensors "*, M. M. Tehranchi, S. M. Hamidi, H. Eftekhari, M. Karbaschi, M. Ranjbaran, *Sensors and Actuators A* 172 (2011) 365– 368.
- 2- *" Effect of magnetic annealing on magneto-optical properties of Ce YIG thin films incorporating Gold nanoparticles"*, S. M. Hamidi, M.M. Tehranchi, *J. Phys. D: Applied Phys.* 44, 305003 (2011).
- 3- *"Engineered One-Dimensional Magneto-Photonic Crystal for*



Wavelength Division Multiplexing Systems”, S. M. Hamidi, M.M. Tehranchi, M. Shasti, J. Phys. D: Appl. Phys. 44, 205107, (2011).

4- *“Effects of target rotation rate on the structural and morphological properties of thin garnet films fabricated by pulsed laser deposition”*, M. M. Tehranchi, S. M. Hamidi, A. Hasanpour, M. Mozaffari, J. Amighian, J. Optics and Laser Technology 43, 609, (2011).

5- *“A novel design for all-optical NAND/NOR/XOR gates based on nonlinear directional coupler”*, Yaghoubi, E., L. Bakhtiar, A. Adami and S. Hamidi . J. Adv. Comput. Res 2: 51-59. (2011).

#### 2010

1- *“Adjustable Faraday rotation in one-dimensional magneto-phonic crystals”*, S. M. Hamidi, M. M. Tehranchi, A. Bananej, Opt. mat. 32, 1085, 2010.

2- *“The magneto-optical Co-based amorphous thin film as a magnetic field sensor”*, S. M. Hamidi, M. M. Tehranchi, Y. Chiniforooshan, Journal of optoelectronic and advanced materials, 12, 1135 (2010).

3- *“High Transmission Enhanced Faraday rotation in Coupled Resonator Magneto-Optical Waveguides”*, S. M. Hamidi, M. M. Tehranchi, J. Lightwave. Tech. 28 (15), 2139 (2010).

#### 2009

1- *“The design of half-subtractor logic function based on nonlinear directional coupler”*, Bakhtiar, L., E. Yaghoubi, A. Adami, S. Hamidi and M. Hosseinzadeh, Journal of Computer Engineering 1: 3-11. (2009).

#### 2008

1- "A flexible design for one dimensional photonic crystals with controllable photonic bandgap width", A. Bananej, S. M. Hamidi, W. Li, Ch. Li and M. M. Tehranchi, optical materials, 30, 1822, 2008.

2- "Adjustable dispersion compensating in one dimensional coupled resonator planar optical waveguides", S. M. Hamidi, A. Bananej and M. M. Tehranchi, optics communication, 281, 4917, 2008.

3- "Magneto optical Kerr effect in Glass/CoFeSiB/ Cu/ SnO<sub>2</sub> thin film", M. Ghanaatshoar, M. Moradi, M. M. Tehranchi, S. M. Hamidi, journal of non- crystalline solids, 354, 5266 (2008).

4- "Magnetic behaviours of amorphous Fe<sub>78</sub>Si<sub>9</sub>B<sub>13</sub> thin films prepared by pulsed laser deposition", S. M. Hamidi, M. M. Tehranchi, M. Ghanaatshoar, M. Moradi, S. M. Mohseni, Journal of non- crystalline solids, 354, 5178 (2008).

5- "The influence of laser annealing in the presence of longitudinal weak magnetic field on asymmetrical magnetoimpedance response of CoFeSiB amorphous ribbons", M. Ghanaatshoar, N. Nabipour, M. M. Tehranchi, S. M. Hamidi, S. M. Mohseni, Journal of Non-Crystalline Solids, 354, (2008).