

Projects

Supervisor of Master Theses:

- 1) Optical Bistable Switches in one Dimensional Nonlinear Coupled Resonator Optical Waveguide, Z. Eslamiat, 1391.
- 2) Plasmonic Enhanced Kerr Effect in Cobalt Thin Film Incorporating Ag@Au Core-Shell Nanoparticles, M. Oskouie, 1392.
- 3) Angular and Spectral Investigation of Surface Plasmon Resonance and Plasmonics Kerr Effect Enhancement in Au/Co/Au/Magneto-plasmonics Multilayers Based on Kretschmann Configuration, H. Goudarzi, 1393.
- 4) Analysis and design of all optical add drop filters based on ring resonator by two photon absorption nonlinear effect, T. Mahinroosta, 1393.
- 5) Design of Microwave Filters Based on Ferromagnetic Nanowires in Magnetic Photonic Crystals, M. Sedghipour, 1392.
- 6) Fabrication and characterization of Ni nanowires embedded in polydimethylsiloxane and use of them as microwave filters, A. Sobhani, 1393.
- 7) In situ production and thermoplasmonic investigation of AuNPs in PDMS polymer, M. Amini, 1393.
- 8) Excitation of multiple surface Plasmon polaritons in multilayer structures including plasmonic nanogratings, M. Zamani, 1393.
- 9) Hydrogen sensing by long-range surface Plasmon in one dimensional photonic crystal/Pd (TiO₂/SiO₂)₁₄, R. Ramezani, 1394.
- 10) Characterization of Au/Fe/Au and Au/Co/Au magneto-

plasmonic nanostructures with the aim of sensing ethanol vapor, M. Afsharnia, 1394.

Advisor of Master Theses:

1) Optical second-harmonic generation in magneto-optic garent (Bi:YIG) thin films , M. Bahreini, 1387.

2) Temperature dependence of Faraday rotation in (TiO₂/SiO₂)Bi: YIG/ (SiO₂/TiO₂) magneto-phonic crystal, M. Shasti, 1389.

3) Fabrication M-Type Hexaferrite Thin Films by PLD and Optical Magneto-Optical Characterization, H. Lotfipour, 1389.

4) Characterizatin of Co-Doped ZnO Thin Films Growth by Pulsed Laser Deposition, L. Khorramnik, 1389.

5) Design and Manufacturing of High Voltage Sensor by Electro-Optical Method, M. Karbaschi, 1390.

6) Design and Construction of alkali Metal Magnetometer, B. Abaei, 1390.

7) Ferroelectric Property in Thin Films Y(1-X)Bi_xFeO₃(x=0.15,0.2), M. Karimi, 1390.

8) Inverse Faraday Effect in Plasmonic Nanostructures, M. Razavinia, 1391.

9) Mesurement of Verdet Constant of Thin Film Paramagnetic Dysperosium Oxides Grown with Deposition Method, Sh. Ebrahimi, 1391.

10) Optical Polarization in alkali Metal Vapor Rubidium, F. Pirmoradian, 1391.

- 11) Measurement of Quantum Transition in $Y_{3-x}Bi_xFe_5O_{12}(x=0.75)$ Thin Film Based On Magnetic Circular Dichroism, F. Shirazi, 1391.
- 12) Toroidal Moments in Ferroelectric Thin Films of $BiFeO_3$, S. Sheibanipour, 1391.
- 13) Resonance Frequency Measurement of Rb alkali Vapor in Atomic Magnetometer, S. Birzhandi, 1392.
- 14) Recognition and Modeling Natural Colored Structure in Brilliant feathers of Pheasant, Soheilian, 1393.
- 15) Color Effect in Natural Regular Structures, S. Sadeghi, 1390.
- 16) The Visible region Transition Measuring of One-Dimensional Magnetic Photonic Crystal with Structure $(TiO_2/SiO_2)_6/Bi:YIG/(TiO_2/SiO_2)_6$ By Magnetic Circular Dichromism Method, M. Heidari, 1392.
- 17) The Effect of Surface Smoothness on loss and tunability of Barium Strontium Titanate Thin Film Ferroelectric Capacitors, H. Kazemi, 1392.
- 18) Saturation Magnetotription Coefficient Measurement of $Fe_{80}B_{20}$ Thin Film by Stress Induced Magnetic Field Anisotropy Altering Method, A. A. khazaei, 1392.
- 19) Analysis and design of solar cell based on photonic crystal, A. Abdian, 1393.
- 20) Design and analysis of optical devices based on photonic crystals nanocavities, M. H. Karimi, 1393.
- 21) Investigation of the increase in nonlinear coefficient of $BiFeO_3$ samples by using magnetic annealing , E. Haghverdi, 1394.
- 22) Optimization of pulsed layer deposition system with the

approach of depositing multilayer magnetoelectric structures, E, Heidari, 1394.

23) Optical gyroscope conceptual design based on rotating photonic crystal, M. Zahednamazi, 1394.

24) The effect of OTS wall coating in the rubidium cell on the improvement of atomic magnetometer sensitivity, D. Mofidi, 1394.

Advisor of PhD Theses:

1) Amplification of Detection of Magnetoelectric Effect in Photovoltaic Composite Multiferroic Thin Films, Advisor, M. H. Khalkhali, 1392.