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College: Faculty of Electrical Engineering

Education

Degree	Graduated in	Major	University
Ph.D	2014	Electronics Engineering	Iran University of Science and Technology

Subjects Taught

- Optoelectronics
- Advanced Optoelectronics
- Optical Modulation
- Solar Cells
- Electronics I

Papers in Conferences

1. K. Tahriri ,& A. Bahrami ,Acoustic Analog to Digital Converter based on Phononic Crystals ,The 6th National Conference on New Technologies in Electrical, Computer and Mechanical Engineering of Iran ,2023.
2. M. R. Rahimi ,& A. Bahrami ,Phononic Crystal Sensor for Detection of D2O Concentration in H2O_D2O Mixture ,The 12th International Conference on Acoustics and Vibration ,2022, تهران.
3. A novel proposal for DWDM demultiplexer design using resonance cavity in photonic crystal structure ,2009 Asia Communications and Photonics conference and Exhibition (ACP) ,pp. 1-9 ,2009.

Papers in Journals

1. E. Bahrami ,& A. Bahrami,Topological phononic switch based on reconfigurable symmetry-broken crystals with rotatable scatterers,Scientific Reports,2025.
2. A. Khaligh , A. Bahrami , H. Badri Ghavifekr,Phononic crystal sensor for high-sensitive detection of heavy metal concentrations,Physica Scripta,2025.
3. A. Bahrami ,& F. Motaiei,One-dimensional phononic crystal fiber for energy harvesting application,Mechanics of Advanced Materials and Structures,2025.
4. M. Zaremanesh ,& A. Bahrami,Two-dimensional honeycomb lattice structure for underwater acoustic cloaking using pentamode materials,Physica Scripta,pp. 015946,2024.

5. K. Tahriri , A. Bahrami , F. Motaei,Acoustic analog-to-digital converter based on solid–solid phononic crystal cavity,*The European Physical Journal Plus*,pp. 52,2024.
6. F. Motaei ,& A. Bahrami,Acoustic energy harvesting using phononic crystal fiber with conical input,*Scientific Reports*,2024.
7. E. Bahrami ,& A. Bahrami,Three-channel acoustic switch based on topological phononic crystals,*The European Physical Journal Plus*,2024.
8. A. Bahrami ,& F. Motaei,A review of phononic-crystal-based energy harvesters,*Progress in Energy*,2024.
9. K. Tahriri , A. Bahrami , F. Motaei , H. Hu,Acoustic analog-to-digital converter using coupled waveguides in phononic crystals,*Mechanics of Advanced Materials and Structures*,2024.
10. M. Rahimi ,& A. Bahrami,Sensing the Heavy Water Concentration in H₂O-D₂O Mixture by Solid-Solid Phononic Crystals,*Chinese Physics B*,2023.
11. F.H. Asgharkhani ,& A. Bahrami,Acoustic 4×2 Encoder based on Linear Waveguides in Two-dimensional Solid-Solid Phononic Crystals,*Optik*,2023.
12. F.H. Asgharkhani ,& A. Bahrami,Four-Input Acoustic XOR Logic Gate based on Solid-Solid Phononic Crystals,*Photonics and Nanostructures-Fundamentals and Applications*,pp. 101192,2023.
13. M. Rahimi ,& A. Bahrami,Phononic Crystal Sensor-Demultiplexer for Detection of Benzene Isomers,*Optik*,pp. 171112,2023.
14. M. Ghoreishi ,& A. Bahrami,Reciprocal invisibility cloaking with self-collimation effect of phononic crystals,*Physica Scripta*,pp. 015704,2023.
15. F. Ahmadzadeh ,& A. Bahrami,Mechanically Tuned Gradient-Index Phononic Crystal Lens,*Chinese Journal of Physics*,pp. 2773-2780,2022.
16. M. Zaremanesh ,& A. Bahrami,Multilayer acoustic invisibility cloak based on composite lattice,*Scientific Reports*,pp. 16096,2022.
17. F. Motaei ,& A. Bahrami,Energy harvesting from sonic noises by phononic crystal fibers,*Scientific Reports*,pp. 10522,2022.
18. M. Ghoreishi ,& A. Bahrami,Acoustic invisibility cloak based on two-dimensional solid-fluid phononic crystals,*Solid State Communications*,pp. 114646,2022.
19. A. Mehaney , H. Gharibi , A. Bahrami,Phononic Eco-sensor for Detection of Heavy Metals Pollutions in Water with Spectrum Analyzer,*IEEE Sensors Journal*,pp. 6733 - 6740,2021.
20. M. Alinejad ,& A. Bahrami,Two-channel ultrasonic switch based on two-dimensional fluid/fluid phononic crystals with composite lattices,*Physica Scripta*,pp. 015702,2021.
21. A. Bahrami , M. Alinejad , F. Motaei,A proposal for 1×4 phononic switch/demultiplexer using composite lattices,*Solid State Communications*,pp. 114179,2021.
22. S. Z. Aboutalebi ,& A. Bahrami,Opto-acoustical filter based on phoxonic crystal ring resonator,*Journal of Acoustical Society of Iran*,pp. 36-43,2021.
23. M. Zaremanesh et al.,Temperature biosensor based on triangular lattice phononic crystals,*APL Materials*,2021.
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25. F. Motaei ,& A. Bahrami,An elastic fiber based on phononic crystals,*Scientific Reports*,pp. 1-7,2021.
26. A. Khaligh , A. Bahrami , H. Badri , Ghavifekr,Phononic crystal locally-resonant cavity for detecting vinegar acidity,*Journal of Molecular Liquids*,pp. 116972,2021.
27. H. Gharibi , A. Mehaney , A. Bahrami,High performance design for detecting NaI–water concentrations using a two-dimensional phononic crystal biosensor,*Journal of Physics D: Applied Physics*,pp. 015304,2021.
28. H. Gharibi ,& A. Bahrami,Phononic crystals for sensing FAMES with demultiplexed frequencies,*Journal of Molecular Liquids*,pp. 112841,2020.
29. F. Motaei ,& A. Bahrami,Eight-channel acoustic demultiplexer based on solid-fluid phononic crystals with hollow cylinders,*Photonics and Nanostructures-Fundamentals and Applications*,pp. 100765,2020.

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35. M. Alinejad ,& A. Bahrami,Thermal switching of ultrasonic waves in two-dimensional solid/fluid phononic crystals,Physica Scripta,pp. 125705,2019.
36. A. Heydari , A. Bahrami , A. Mahmoodi,All-optical XOR, XNOR, NAND and OR logic gates based on photonic crystal 3-DB coupler for BPSK signals,Journal of Optical Communications,2019.
37. A. Bahrami , M. Dehdast , S. Mohammadnejad , H. B. Ghavifekr,Delta-doped quantum wire tunnel junction for highly concentrated solar cells,Chinese Physics B,pp. 046102,2019.
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