Curriculum Vitae

Amir Zellati
In Journal Papers and Research Work I write my family name with one "L". I mean I write: "Amir Zelati"
Google Scholar:
https://scholar.google.com/citations?user=7XOxyGEAAAAJ&hl=en

Assistant Professor of Physics
Birjand University of Technology
Birjand, Iran

University Degree: **Ph.D. in Solid State Physics**

Place of Birth: **Mashhad, Iran**

Nationality: **Iranian**

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1 .Current Research Interests:

High-T_C superconductors, Magnetism, Nano Powders fabrication and Nanotechnology, Piezoelectric Ceramics and Computational Physics.

2. Education Background

2009- 2014: Ph.D. student, Solid State Physics, University of Birjand, Iran

2012-2013: Visiting Scholar, Research Work, Simon Fraser University, Burnaby, BC, Canada

2005-2008: M.Sc. Student, Solid State Physics, Ferdowsi University of Mashhad-Iran

2000-2005: B. Sc. Student of Solid State Physics, Ferdowsi University of Mashhad-Iran

3. Journal Papers

1- Maryam Habibi, Saeed Mirzaei, Ali Arman, Stanislav Jurečka, Mohammad Sadeghi, **Amir Zelati**, Reza Shakoury, Ehsan Tanhaee, Nader Ghobadi, Hamid Ehteram, Ştefan Ţălu. "**Microstructure, fractal geometry and corrosion properties of CrN thin films: The effect of shot number and angular**" *Materials Today Communications*, Vol. 137, 104072, **August 2022.** https://doi.org/10.1016/j.mtcomm.2022.104072

2- Maryam Habibi, Mohammad Sadegi, Ali Arman, Dinara Sobola, Carlos Luna, Saeed Mirzaei, **Amir Zelati**, Henrique Duarte da Fonseca Filho, Ştefan Ţălu. "**Corrosion resistance and surface microstructure of Mg_3N_2/SS thin films by plasma focus instrument**" *Microscopy Research and Technique*, Vol.85, Issue8, **August 2022.** https://doi.org/10.1002/jemt.24138

3- Nader Ghobadi, Ali Arman, Mohammad Sadeghi, Carlos Luna, Saeed Mirzaei, **Amir Zelati**, Reza Shakoury. "**Optical transitions and photocatalytic activity of NiSe films prepared by the chemical solution deposition method**" *The European Physical Journal Plus*, Vol. 137, Issue 6, 661, **June 2022.** https://doi.org/10.1140/epjp/s13360-022-02879-1

4- Ştefan Ţălu, Erveton P Pinto, Robert S Matos, **Amir Zelati**, Shahram Solaymani, Azizollah Shafiekhani, Atefeh Ghaderi. "**Surface dynamics, fractal features, and micromorphology analysis of kefir biofilms**" *Microscopy Research and Technique*, Vol.85, Issue5, **May 2022.** https://doi.org/10.1002/jemt.24059

5- Shahram Solaymani, Ştefan Ţălu, Negin Beryani Nezafat, Laya Dejam, Azizollah Shafiekhani, Atefeh Ghaderi, **Amir Zelati** "**Optical properties and surface dynamics analyses of homojunction and hetrojunction Q/ITO/ZnO/NZO and Q/ITO/ZnO/NiO thin films**" *Results in Physics*, Vol 29, 104679, **October 2021**. https://doi.org/10.1016/j.rinp.2021.104679

6- Reza Shakoury, Negin Talebani, **Amir Zelati**, Ştefan Ţălu, Ali Arman, Saeed Mirzaei, Azadeh Jafari "**The effect of thickness and film homogeneity on the optical and microstructures of the ZrO2 thin films prepared by electron beam evaporation method**" *Optical and Quantum Electronics*, Vol 53 (8), **August 2021**. https://doi.org/10.1007/s11082-021-03079-4

7- **A. Zelati**, R. Taghavimendi, A. Bakhshayeshi "**First-principles investigation of optoelectronic properties of novel SnS2 with a cubic structure**" *Solid State Communications*, Vol. 333, 114344, **July 2021**. https://doi.org/10.1016/j.ssc.2021.114344

8- M. Sadeghi, **A. Zelati**, A. Boochani, A. Arman and S. Mirzaei "**Comparing half-metallic, MOKE, and thermoelectric behavior of the CrTiZ (Z=As, P) half-Heuslers: a DFT study**", *Material Research Express*, Vol. 8, No. 4, 046302, **April 2021**. https://doi.org/10.1088/2053-1591/abf6fd

9- Ahmad Amirabadizadeh, **Amir Zelati,** Zahra Lotfollahi "**Studying the Temperature Effect on the Magnetic Behavior of Fe_3O_4 Water Based Ferrofluid**" *Key Engineering Materials*, Vol. 744, 468, **July 2017**. https://doi.org/10.4028/www.scientific.net/KEM.744.468

10- A. Amirabadizadeh, Z. Lotfollahi, **A. Zelati** "**Giant magnetoimpedance effect of $Co_{68.15}Fe_{4.35}Si_{12.5}B_{15}$ amorphous wire in the presence of magnetite ferrofluid**", *Journal of Magnetism and Magnetic Materials*, Vol. 415, 102, **October 2016**. https://doi.org/10.1016/j.jmmm.2015.11.029

11- Masoud Majidiyan Sarmazdeh, Roohallah Taghavi Mendi, **Amir Zelati**, Arash Boochani, Fariba Nofeli, "**First-principles study of optical properties of InN nanosheet**", *International Journal of Modern Physics B*, Vol 30 (19), 1650117, **July 2016**. https://doi.org/10.1142/S0217979216501174

12- R Taghavi Mendi, M Majidiyan, SM Elahi, MR Abolhassani, A Boochani, **A Zelati**, "Structural and electronic properties of V-and Co-doped single-walled ZnONT (8, 0): Transition from semiconducting to metallic and half-metallic states", *International Journal of Modern Physics B*, Vol 29 (7), 1550068, **March 2015**. https://doi.org/10.1142/S021797921550068X

13- **Amir Zelati,** Ahmad Amirabadizadeh, Seyyed Amirhossein Hosseini, "A facile approach to synthesize dysprosium oxide nanoparticles", *International Journal of Industrial Chemistry*, Vol 5 (3), 69-75, **December 2014**, https://doi.org/10.1007/s40090-014-0020-x

14- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier, "**Critical current density and intergranular coupling study of the dysprosium oxide nanoparticle added $Bi_{1.6}Pb_{0.4}Sr_2Ca_2Cu_3O_y$ superconductor**", *Journal of Superconductivity and Novel Magnetism*, Vol 27(10), 2185, **October 2014**, https://doi.org/10.1007/s10948-014-2588-y

15- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier, "**Effect of Eu_2O_3 Nanoparticles Addition on Structural and Superconducting Properties of BSCCO**", *Journal of Superconductivity and Novel Magnetism*, Vol 27(6), 1369, **June 2014**, https://doi.org/10.1007/s10948-013-2475-y

16- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier, "**Effects of Dy_2O_3 Nanoparticles Addition on Structural and Superconducting Properties of BSCCO**", *Indian Journal of Science and Technology***,** Vol 7(2), 123, **February 2014**. https://doi.org/10.17485/ijst/2014/v7i2.4

17- Z. Lotfi Mahyari, A. Cannell, C. Gomez, S. Tezok, **A. Zelati,** E. V. L. de Mello, J.-Q. Yan, D. G. Mandrus, J. E. Sonier, "**Zero-field μSR search for a time-reversal-symmetry-breaking mixed pairing state in superconducting $Ba_{1-x}K_xFe_2As_2$**", *Physical Review B*, 89, 020502 (R) **January 2014**. https://doi.org/10.1103/PhysRevB.89.020502

18- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier, "**Manufacture and Characterization of Dy_2O_3 Nanoparticles via X-Ray Diffraction, TEM and photoluminescence**", *Indian Journal of Science and Technology***,** Vol. 6(12) 5552, **December 2013**. https://doi.org/10.17485/ijst/2013/v6i12.10

19- **A. Zelati,** A. Amirabadizadeh, A. Kompany, "Preparation and Characterization of Barium Carbonate Nanoparticles", *International Journal of Chemical Engineering and Applications*, Vol. 2 (4) 306-310, **August 2011**. https://doi.org/10.7763/IJCEA.2011.V2.121

4. International Conferences

1- **Amir Zelati,** "Influence of Terbium nanoparticles addition on superconducting properties of BPSCCO", 12th Prague Colloquium on f-electron System (PCFES 2018), Charles University in Prague, Czech Rep., July 4-7, 2018.

2- Ahmad Amirabadizadeh, Zahra Lotfollahi, **Amir Zelati** "Effect of temperature on the magnetic behavior of Magnetite Ferrofluid synthesized by co-precipitation method", International Symposium on Material Science and Engineering (ISMSE 2017), Kuala Lumpur, Malaysia, January 13-15, 2017

3- **Amir Zelati,** Ahmad Amirabadizadeh, Effect of calcination atmosphere on the structural and magnetic properties of ZnFe2O4 nanoparticles prepared by Sol-Gel method", International Conference on Advances in Functional materials (AFM 2016), South Korea, August 8-11, 2016.

4- **Amir Zelati,** Ahmad Amirabadizadeh,, Jeff Sonier, "Study the structural and superconducting properties of europium oxide nanoparticle added $Bi_{1.6}Pb_{0.4}Sr_2Ca_2Cu_3O_y$", 11th Prague Colloquium on f-electron System (PCFES 2014), Charles University in Prague, Czech Rep., July 2-5, 2014.

5- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier, "Synthesis and Structural Characterization of Dy_2O_3 Nanoparticles via XRD and TEM", 9th Autumn School on X-ray Scattering from Surfaces & Thin Layers, Smolenice, Slovak Rep., September 25-28, 2013.

6- **Amir Zelati**, Ahmad Amirabadizadeh, Ahmad Kompany, Zobadeh Momeni Larimi. "*Synthesis of $BaCO_3$ nanopowder by the gel-combustion method at different calcination temperatures and characterization of the samples by TEM and XRD*", Proceedings of 2011 International Conference on Chemistry and Chemical Process (ICCCP 2011), Bangkok, Thailand, May 7-9, 2011.

7- Zobadeh Momeni Larimi, Ahmad Amirabadizadeh, **Amir Zelati**. "*Synthesis of Y_2O_3 Nanoparticles by Modified Transient Morphology Method*", Proceedings of 2011 International Conference on Chemistry and Chemical Process (ICCCP 2011), Bangkok, Thailand, May 7-9, 2011.

8- National Conferences

1- **Amir Zelati,** Masoud Majidiyan Sarmazdeh “Using DFT and Lorentz's model to study optical properties of a new phase of SnS_2 Semiconductor” Annual Physics Conference of Iran, Isfahan University of Technology, 23-26 August 2021.

2- **Amir Zelati,** Masoud Majidiyan Sarmazdeh, Nafiseh Rajaee “Investigation of structural and mechanical properties of Co_2TiGe full-Heusler compound based on the density functional theory” Annual Physics Conference of Iran, Isfahan University of Technology, 23-26 August 2021.

3- Ahmad Amirabadizadeh, Zahra Lotfollahi, Amir Zelati “Synthesis, characterization and study of the effect of temperature on magnetic behavior of magnetite ferrofluid” 23rd Symposium of Crystallography and Mineralogy of Iran, Damghan, Iran, 27-28 January 2016.

4- **Amir Zelati,** Ahmad Amirabadizadeh, Ahmad Kompany, Hadi Salamati, Jeff Sonier. “Improvement of Superconducting Properties of Bi-2223 Added with Nano Europium Oxide”, 4th National Conference on Advances in Superconductivity, Sharif University of Technology, Tehran, Iran, Feb. 2014.

5- Amirabadizadeh, Ahmad; **Zelati, Amir**; Hasanain, Seyed Khorshid. *"Studying The Effect of Crossed Flux On Lower Critical Field (H_{C1}) Of $Y_1Ba_2Cu_3O_{7-x}$ Superconductors"*, Annual Physics Conference of Iran, Isfahan University of Technology, 15-18 August 2009.

6- **Zelati, Amir**; Hoseini, Mohamad; Amirabadizadeh, Ahmad. "*Characterization of the PZT samples prepared by sol-gel and solid state reaction methods by Raman spectroscopy, XRD and SEM"*, 17th Symposium of Crystallography and Mineralogy of Iran, Hamadan, Iran, 2009.

7- **A. Zelati**, M. Hoseini, *" Synthesis $Pb(Zr_{0.52}\ Ti_{0.48})O_3$ nano powders by the gel- combustion method and characterization of the samples by XRD and SEM"*, National Conference on Nano Material and Nano Technology, Islamic Azad University of Najaf Abad, Iran, 2009.

8- **Zelati, Amir;** Hoseini, Mohamad; Kompany, Ahmad; Taghavi Mendi, Rouhollah, *"Synthesis $Pb(Zr_{0.52}Ti_{0.48})O_3$ nanopowders by the sol-gel method and characterization of the samples by Raman spectroscopy and SEM"*- 9th Conference on Condensed Matter, Physics Society of Iran, 2009.

5. Working Experiences

- **Feb.2020 to Present: Assistant Professor of Physics**, Birjand University of Technology, Birjand, Iran.
- **Feb.2015 to Sep.2019: Assistant Professor of Physics**, Technical Faculty of Ferdows, University of Birjand, Birjand, Iran
- **Dec.2015 to Feb.2019: Associate Dean for Academic Affair**, Technical Faculty of Ferdows, University of Birjand, Birjand, Iran.

7. Cooperation with Associations

- Permanent Member of "Physics Society of Iran".
- Member of "Iranian Society of Crystallography and Mineralogy".

8. Awards & Honors

- I awarded a six-month scholarship to complete my Ph. D. thesis at Simon Fraser Uuniversity (SFU), Burnaby, BC, Canada. I worked in magnetic and superconductivity lab with Sonier research group under supervision of Prof. Jeff E. Sonier during Sep 2012 to March 2013.