

## CURRICULUM VITAE

**Dr. Seyed Ebrahim Mousavi Ghahfarokhi (Associate professor)**

PhD in Condensed Matter from Shahid Chamran University of Ahvaz

### **Personal data:**

Place of birth: Farokhshahr, Iran

Date of birth: 25/1 / 1963

Nationality: Iranian

Gender: Male

Marital status: Married

### **Education and Professional Career:**

**PhD:** Experimental Condensed Matter Physics; Shahid Chamran University of Ahvaz, Iran

**Thesis title:** Investigation of the doping effect of Cd, Sb, Pb, and Sb<sub>2</sub>O<sub>3</sub> nanoparticles on the properties of Bi-Sr-Ca-Cu-O superconductor (2009).

**MSc:** Condensed Matter Physics; University of Isfahan, Iran

**Thesis title:** Fabrication of the iron ferrite and investigation magnetic properties of its r(1994).

**BSc:** Condensed Matter Physics; University of Isfahan, Iran

### **Research interest:**

1-Magnetic Properties of Materials (Fundamentals and Device Applications)

2- Electrical and dielectric properties of materials (Fundamentals and Device Applications)

3- Ferrites (Spins, Hexaferrites, Garnets, BFO) (Fundamentals and Device Applications)

4- Nanostructures (Nanomagnetisms, Nanocomposites)

5- Superconductivity (High temperature superconductivity, Magnetic properties of high temperature superconductivity)

### **ISI Publications:**

1-M. Z. Shoushtari, **S. E. Mousavi Ghahfarokhi**, M. Farbod, “The effect of Cd doping on Bi-based superconductor”, Journal of Applied Sciences , 9, (2009) 2618- 2613.

2- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod “Study of Bi<sub>1.65-x</sub>Pb<sub>0.35</sub>Sb<sub>x</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> superconductor”, Journal of Applied Sciences, 9 (2009) 788-783.

3- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari , “Structural and physical properties of Cd doped Bi<sub>1.64</sub>Pb<sub>0.36</sub> Sr<sub>2</sub>Ca<sub>2-x</sub>Cd<sub>x</sub>Cu<sub>3</sub>O<sub>y</sub> superconductor”, Physica B, 405 (2010) 4649-4643.

4- M. Z. Shoushtari, **S. E. Mousavi Ghahfarokhi**, “ A Study of the Magnetic Properties of Bi<sub>1.64-x</sub>Pb<sub>0.36</sub>Cd<sub>x</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> Superconducto”, Journal of Superconductivity and Novel Magnetism, 24 (2011) 1511-1505.

5- M. Zargar. Shoushtari, **S. E. Mousavi Ghahfarokhi**, F. Ranjbar, Synthesis and Magnetic Properties of SrFe<sub>12-x</sub>Co<sub>x</sub>O<sub>19</sub> (x= 0- 2) Hexaferrite Nanoparticles, Advanced Materials Research, 623-622 (2013) 929-925.

6- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “The effect of Sb and Pb doping on the critical temperature of the Bi<sub>1.6</sub>Pb<sub>x</sub>Sb<sub>y</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>z</sub> superconductor”, Journal of Superconductivity and Novel Magnetism, 27 (2014) 1157-1153.

- 7- **S. E. Mousavi Ghahfarokhi**, F. Ranjbar, M. Z. Shoushtari, “ A Study the prpperties SrFe<sub>12-x</sub>CoxO<sub>19</sub> nanoparticles”, Journal of Magnetism and Magnetic Materials, 362 (2014) 87-80.
- 8- **S. E. Mousavi Ghahfarokhi**, N. Heidary, M. Z. Shoushtari, “The effect of CdO nanoparticles on the structure and magnetic properties of Bi<sub>1.64</sub>Pb<sub>0.36</sub>Sr<sub>2</sub>Ca<sub>2-x</sub>CdxCu<sub>3</sub>O<sub>y</sub>” superconductors, Journal of Superconductivity and Novel Magnetism, 27 (2014) 2223-2217.
- 9- M. Zargar Shoushtari, **S. E. Mousavi Ghahfarokhi**, F. Ranjbar, M. Z. Shoushtari , “A Study of the Morphological Properties of SrFe<sub>12-x</sub>CoxO<sub>19</sub> (x= 0, 0.1, 0.2) Hexaferrite Nanoparticles”, Journal of Superconductivity and Novel Magnetism, 28 (2018) 1609-1601.
- 10 - **S. E. Mousavi Ghahfarokhi**, N. Manhoush, I. Kazeminezhad. “ The role of PbO nanoparticles doping on the stability of Bi-2223 phase in Bi<sub>2-x</sub>PbxSr<sub>2</sub>Ca<sub>2</sub>Cu<sub>4</sub>O<sub>y</sub> compounds”, Journal of Superconductivity and Novel Magnetism, 29 (2016) 39-33.
- 11- **S. E. Mousavi Ghahfarokhi**, and Z. A. Rostami and I. Kazeminezhad, “Fabrication of PbFe<sub>12</sub>O<sub>19</sub> nanoparticles and study of their structural, magnetic and dielectric properties”, Journal of Magnetism and Magnetic Materials, 399 (2016) 142-130.
- 12- **S. E. Mousavi Ghahfarokhi**, S. Hoseini, M. Z. Shoushtari, “Fabrication of SrFe<sub>12-x</sub>NixO<sub>19</sub> nanoparticles and investigation of their structural, magnetic and dielectric Properties”, International Journal of Minerals, Metallurgy and Materials, 22 (2015) 883-876.

- 13- M. Zargar Shoushtari , A. Emami, **S. E. Mousavi Ghahfarokhi**, “Effect of bismuth doping on the structural and magnetic properties of zinc-ferrite nanoparticles prepared by a microwave combustion method”, 419 (2016) 579-572.
- 14- **S. E. Mousavi Ghahfarokhi**, F. Joola, “AC magnetic susceptibility of Cd-doped  $\text{Bi}_{1.64}\text{Pb}_{0.36}\text{Sr}_2\text{Ca}_{2-x}\text{Cd}_x\text{Cu}_3\text{O}_{10}$  superconductor synthesized by the sol-gel method”, Chinese Journal of Physics, 54 (2016) 930-921.
- 15- Z. Araghi. Rostami, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, “Effect of Fe/Pb molar ratio on the structure, magnetic and dielectric properties of  $\text{PbFe}_{12}\text{O}_{19}$  nanoparticles”, Chinese Journal of Physics, 56 (2018) 769-760.
- 16- A. Rahimi, I. Kazeminezhad, **S. E. Mousavi Ghahfarokhi**, “Synthesis and investigation of  $\text{SnS}_2/\text{RGO}$  nanocomposites with different GO concentrations: structure and optical properties, photocatalytic performance”, Journal of Materials Science: Materials in Electronics, 29 (2018) 4456-4449.
- 17- **S. E. Mousavi Ghahfarokhi**, N. Alirezaei Varnosfaderani, M. Zargar Shoushtari, “The role of Pb and annealing temperature on the structural, magnetic, optical and dielectric properties of W-type hexaferrite nanostructures”, Ceramics International, 44 (2018) 17601-17592.
- 18- **S. E. Mousavi Ghahfarokhi**, E. Mohammadzadeh Shobegar, “Structural, magnetic, dielectric and optical properties of  $\text{Sr}_{1-x}\text{Mn}_x\text{Fe}_2\text{O}_4$  nanoparticles fabricated by sol-gel method”, Journal of Alloys and Compounds, 768 (2018) 73-65.
- 19- M. Zargar Shoushtari, Gh. Heydarzadeh, and **S. E. Mousavi Ghahfarokhi**,” An Investigation of  $\text{Y}_3\text{Ba}_5\text{Cu}_8\text{O}_{18}$  Doping with Ag Nanoparticles and Its Application as Superconductor”, Journal of Superconductivity and Novel Magnetism, 31 (2018) 9-1.

## ISC Publications:

- 1- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ Fabrication and the effect of Sb<sub>2</sub>O<sub>3</sub> nanoparticles on Bi-2223 superconductor”, Iranian Journal of Crystallography and Mineralogy, 1 (2010) 300-287.
- 2- M. Z. Shoushtari, **S. E. Mousavi Ghahfarokh**, R. Kalantar Hormozi, “Fabrication and the effect of Au nanoparticles on Bi<sub>1.6</sub>Pb<sub>0.4</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> superconductor”, Iranian Journal of Crystallography and Mineralogy, 20 (2010) 196-187.
- 3- M. Z. Shoushtari, F. Ranjbar, **S. E. Mousavi Ghahfarokh**,” Fabrication and investigation of the structural properties of Cobalt- doped M- type Strontium hexaferrite nanoparticles”, ”, Iranian Journal of Crystallography and Mineralogy, 21 (2013) 178-167.
- 4- F. Ranjbar, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Effect of calcination temperature and time on the structural and electrical properties of SrFe<sub>12</sub>O<sub>19</sub> nanoparticles”, Iranian Journal of Physics Research, 14 (2015) 316-305.
- 5- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, N. Hoseenzadeh, “A study Bi-2223 superconductor doped of CdO nanoparticles”, Iranian Journal of Crystallography and Mineralogy, 92 (2015) 106-95.
- 6- **S. E. Mousavi Ghahfarokhi**, S. Hoseini, M. Z. Shoushtari, “Fabrication and investigation of the magnetic and dielectric properties of M- type Strontium hexaferrite nanoparticles”, Iranian Journal of Crystallography and Mineralogy, 93 (2015) 372-359.

7- **S. E. Mousavi Ghahfarokhi**, N. Heidary, M. Z. Shoushtari, “ An investigation of citric acid molar ratio on structural, magnetic and dielectric properties SrNi<sub>2</sub>Fe<sub>16</sub>O<sub>27</sub> nanostructure”, Journal of Research on Many-body Systems, 6 (2016) 48-35.

8- **S. E. Mousavi Ghahfarokhi**, Z. A. Rostami and I. Kazeminezhad, “The effect of pH on the structural and magnetic properties of PbFe<sub>12</sub>O<sub>19</sub> nanoparticles prepared by sol-gel method”, Iranian Journal of Physics Research, 16 (2017) 374-365.

9- **S. E. Mousavi Ghahfarokhi**, N. Manhoush, I. Kazeminezhad, “The effect of PbO nanoparticles on structural and microstructure of Bi<sub>2-x</sub>Pb<sub>x</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>4</sub>O<sub>y</sub> superconductor composition”, Iranian Journal of Crystallography and Mineralogy, 25 (2017) 438-427.

10- **S. E. Mousavi Ghahfarokhi**, F. Joola and M. Farbod, “A study of Bi<sub>1.64</sub>Pb<sub>0.36</sub>Sr<sub>2</sub>Ca<sub>2-x</sub>Cd<sub>x</sub>Cu<sub>3</sub>O<sub>10</sub> superconductor synthesized by sol-gel method”, Journal of Research on Many-body Systems, 7 (2017) 197-187.

11- **S. E. Musavi Ghahfarokhi**, R. K. Alikhani and I. Kazeminezhad, “The effect of annealing temperature on structural, magnetic and dielectric properties of PbFe<sub>11</sub>Co<sub>1</sub>O<sub>19</sub> nanopartices”, Iranian Journal of Crystallography and Mineralogy, 25 (2017) 666-655.

12- **S. E. Mousavi Ghahfarokhi**, F. Hamalzadeh Ahmadi, M. Zargar Shoushtari, “The effects of citric acid molar ratio on structural, magnetic and dielectric properties of Y- type strontium hexaferrite (Sr<sub>2</sub>Co<sub>2</sub>Fe<sub>12</sub>O<sub>22</sub>) nanostructure”, Iranian Journal of Crystallography and Mineralogy, 25 (2027) 904-895.

13- M. Soltani, M. Z. Shoushtari, F. Ranjbar, **S. E. Mousavi Ghahfarokh**, “ A study of structural, electrical and magnetic properties of zinc ferrite nanoparticles

doped with chromium” Iranian Journal of Crystallography and Mineralogy, 25 (2017) 472-461.

14- **S. E. Mousavi Ghahfarokhi**, F. Bazdar and I. Kazeminezhad, “The effect of annealing temperature on the structural, magnetic and dielectric properties of  $\text{PbFe}_{11.8}\text{Ni}_{0.2}\text{O}_{19}$  nanoparticles”, Journal of Advanced Materials in Engineering (Esteghlal) 36 (2017) 80-67.

15- **S. E. Mousavi Ghahfarokhi**, E. Mohammadzadeh shobegar, M. Zargar Shoushtari, “Investigation the effect of sintering time on the structural, magnetic and dielectric properties of strontium spinel ferrite nanoparticles ( $\text{SrFe}_2\text{O}_4$ ) fabricated by sol-gel method”, Journal of Research on Many-body Systems, 9 (2018) 180-167.

16- **S. E. Musavi Ghahfarokhi**, M. Rahimi Larki<sup>1</sup>, I. Kazeminezhad, The “influence of annealing temperature on structural and optical properties of bismuth ferrite ( $\text{BiFeO}_3$ )” Journal of Research on Many-body Systems. Accepted (2019).

#### **Conference Publications:**

1- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Investigation grain size of  $\text{Y}_2\text{O}_3$ ”, 14<sup>th</sup> conference in Crystallography and Mineralogy, Birjand (2006).

2- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “The effect of  $\text{Sb}_2\text{O}_3$  nanoparticles on flux pinning energy of  $\text{Bi}_{1.65-x}\text{Pb}_{0.35}\text{Sb}_x\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_y$  superconductor”, 9<sup>th</sup> Condensed Mater Conference, Ahvaz (2009).

3- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “The effect of annealing time on  $\text{Bi}_{1.65-x}\text{Pb}_{0.35}\text{Sb}_x\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_y$  superconductor phases”,

16<sup>th</sup> conference in Crystallography and Mineralogy, University of Gaelan (2008).

4- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “The effect of the doping Cd on the microstructure and current density of the  $\text{Bi}_{1.64-x}\text{Pb}_{0.36}\text{Cd}_x\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_y$  superconducting “,14th Annual IASBS Meeting on Condensed Matter Physics, Graduate University of Basic Sciences Zanjan (2008).

5- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “The effect of Sb doping on microstructure and critical current density of  $\text{Bi}_{1.6}\text{Pb}_x\text{Sb}_y\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_z$  superconductor”, 15<sup>th</sup> conference in Crystallography and Mineralogy, Ferdowsi University of Mashhad (2008).

6- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “ The effect of Cd doping on critical current density and critical temperature of  $\text{Bi}_{1.6}\text{Pb}_x\text{Cd}_z\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_y$  superconductor”, Annual Conference of Physics of Iran, University of Yasouj (2007).

7- **S. E. Mousavi Ghahfarokhi**, “The preparation of fe\_ferrits and its magnetic properties”, Chairman of the electroceramics IV Conference (1994).

8- **S. E. Mousavi Ghahfarokhi**, “Effect of Temperature and reducing agents on magnetic Iron Ferrite”, Annual Conference of Physics of Iran, (1993).

9- **S. E. Mousavi Ghahfarokh**, J. Amighiyan, “Effect of annealing time, reducing agents and purity of raw materials on iron ferrite magnet”, Iranian conference on physics and the 6th student Conference on Physics, University of Sabzevar, Iran (2001).

10- **S. E. Mousavi Ghahfarokh**, J. Amighiyan, “ Determine the iron ferrite structure using the crystal field theory”, Annual Conference of Physics of Iran, Zanjan university of Zanjan (2002).



- 11- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “Study of  $\text{Bi}_{1.64}\text{Pb}_{0.36}\text{Sr}_2\text{Ca}_{2-x}\text{CdxCu}_3\text{O}_y$  superconductor”, Annual Iranian Physics Conference, Technology University of Isfahan (2009).
- 12- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “Comparison the effect of doping Cd and Sb on Bi-based superconductor”, 1th National Conference on Superconductivity Progress, Technology University of Sharif ( 2008).
- 13- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, M. Farbod, “ Study on the Bi-based superconductor”, 1th National Conference on Superconductivity Progress, Technology University of Sharif ( 2008).
- 14- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ Bi-based superconductor”, 1th National Conference on Superconductivity Progress, Technology University of Sharif ( 2008).
- 15- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Magnetic and structure properties of Cd doping Bi-2223 superconductor”, 2th National Conference on Superconductivity Progress, Shahid Chamran University of Ahvaz (2010).
- 16 - **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Fabrication of  $\text{Sb}_2\text{O}_3$  nanoparticles and the effect of it on the Bi-2223 superconductor”, 18th International Vacuum Congress (IVC18) (2010).
- 17- **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Structural and physical properties of Cd doped  $\text{Bi}_{1.64}\text{Pb}_{0.36}\text{Sr}_2\text{Ca}_{2-x}\text{CdxCu}_3\text{O}_y$  superconductors”, 18th International Vacuum Congress (IVC18) (2010).
- 18 - M. Z. Shoushtari, G. Heydarzadeh, **S. E. Mousavi Ghahfarokhi** The effect of silver nanoparticles doping on  $\text{Y}_3\text{Ba}_5\text{Cu}_8\text{O}_{18}$  Superconductor, 19th International Conference on Iranian Crystallography and Mineralogy, University of Gorgan (2011).

19- M. Z. Shoushtari, G. Heydarzadeh, **S. E. Mousavi Ghahfarokhi**, “The Effect of Silver Nanoparticles Doping on  $Y_3Ba_5Cu_8O_{18-x}$  Superconductor”, THE SEVENTH INTERNATIONAL CONFERENCE ON MAGNETIC AND SUPERCONDUCTING MATERIALS (2011).

20- N. Hoseenzadeh, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “The effect of cadmium oxide nanoparticles doping on the micro structure and current density of  $Bi_{1.64}Pb_{0.36}Sr_2Ca_{2-x}Cd_xCu_3O_y$  superconductor”, 3th National Conference on Advanced in Superconductivity, University of Kashan (2012).

21- N. Hoseenzadeh, M. Z. Shoushtari, **S. E. Mousavi Ghahfarokhi**, “The effect of cadmium oxide nanoparticles doping and sintering temperature on the critical temperature and volume fraction of Bi-2223 in  $Bi_{1.64}Pb_{0.36}Sr_2Ca_{2-x}Cd_xCu_3O_y$  superconductor”, Iranain conference of Physics, University of Yazd (2012).

22- H. Hoseani, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “Effect of temperature and annealing time on microstructure of strontium hexaferrites nanoparticle” 20th iranian congress on crystallography and mineralogy, Shahid Chamran university of Ahvaz (2013).

23- N. Hoseenzadeh, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “The effect of cadmium oxide nanoparticles doping and sintering temperature on the critical temperature and volume fraction of Bi-2223 in  $Bi_{1.64}Pb_{0.36}Sr_2Ca_{2-x}Cd_xCu_3O_y$  superconductor”, Iranain conference of Physics, University of Yazd (2012).

24-N. Manhoush, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, “A study on structure of PbO nanoparticles prepared by microwave irradiation”, 20th iranian

congress on crystallography and mineralogy, Shahid Chamran University of Ahvaz (2013).

25 – I. Kazeminezhad, G. Sayah Torofzadeh. **S. E. ousavi Ghahfarokhi**, “Effect of annealing time on the morphology of nanostructured cadmium sulfide”, 20th Iranian congress on crystallography and mineralogy, Shahid Chamran University of Ahvaz (2013).

26- I. Kazeminezhad, G. Sayah Torofzadeh. **S. E. ousavi Ghahfarokhi**, “A study on structure and optical properties of CdS nanowires prepared by solvothermal route at low temperature”, 11th condensed matter physics conference of Iran, Technology University of Shahroud (2013).

27- H. Hoseani, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ The effect of temperature and annealing time on the structure and magnetic properties of strontium hexaferrites nanoparticles”, Physics conference of Iran , University of Birjand (2013).

28- N. Manhoush, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, “A study on structure of PbO nanoparticles prepared by microwave irradiation”, 20th Iranian congress on crystallography and mineralogy, Shahid Chamran University Of Ahvaz (2013).

29- I. Kazeminezhad, G. Sayah Torofzadeh. **S. E. ousavi Ghahfarokhi**, “Effect of annealing time on the morphology of nanostructured cadmium sulfide”, 20th Iranian congress on crystallography and mineralogy, Shahid Chamran University of Ahvaz (2013).

30- I. Kazeminezhad, G. Sayah Torofzadeh. **S. E. ousavi Ghahfarokhi**, “A study on structure and optical properties of CdS nanowires prepared by solvothermal route at low temperature”, 11th condensed matter physics conference, Technology University of Shahroud (2013).

31- H. Hoseani, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ The effect of temperature and annealing time on the structure and magnetic properties of

strontium hexaferrites nanoparticles”, Physics conference of Iran, University of Birjand (2013).

32- **S. E. Mousavi Ghahfarokhi**, N. Manhoush, I. Kazeminezhad, “ The effect of lead oxide nanoparticles doping on The microstructure and critical current density of  $\text{Bi}_{2-x}\text{Pb}_x\text{Sr}_2\text{Ca}_2\text{Cu}_4\text{O}_y$  superconductor”, Physics conference of Iran, University of Birjand (2013).

33-Z. Araghi Rostami, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, “Optimum and investigation of the annealing temperature effect on the structure  $\text{PbFe}_{12}\text{O}_{19}$  nanoparticles”, 21th symposium of crystallography and mineralogy of Iran, University of Sistan and Baluchestan (2014).

34- S. Zamani, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ The effect of Ba doping on the structure and critical current density of Bi-2223 phase is prepared by the sol-gel method”, 21th symposium of crystallography and mineralogy of Iran, University of Sistan and Baluchestan (2014).

35-M. A. Karouni, M. Z. Shoushtari, **S. E. Mousavi Ghahfarokhi**, “Fabrication superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_7$  by (QMG) process and a study of its properties, 21th symposium of crystallography and mineralogy of Iran, University of Sistan and Baluchestan (2014).

36- N. Headari, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ An investigation of annealing temperature on the structure and magnetic properties of W-type with  $\text{SrNi}_2\text{Fe}_{16}\text{O}_{27}$  composition”, 12th Conference on condensed matter, University of Isfahan (2015).

37- **S. E. Mousavi Ghahfarokhi**, F. Bazdar, I. Kazeminezhad, “The effect of nickel doping on structural and magnetic properties of  $\text{PbFe}_{12-x}\text{Ni}_x\text{O}_{19}$  nanoparticles”, 12th Conference on condensed matter, University of Isfahan (2015).

38- **S. E. Mousavi Ghahfarokhi**, N. Headari, M. Z. Shoushtari, “ Effect of annealing time on the structure and magnetic properties of W-type with  $\text{SrNi}_2\text{Fe}_{16}\text{O}_{27}$  composition “, 22nd Symposium of crystallography and mineralogy of Iran, University of Shiraz (2015).

39 - **S. E. Mousavi Ghahfarokhi**, F. Bazdar, I. Kazeminezhad, “An investigation of structural and magnetic properties of  $Pb_{1-x}Ni_xFe_{12}O_{19}$ ,” 22nd Symposium of crystallography and mineralogy of Iran, University of Shiraz (2015).

40- M. Z. Shoushtari, M. Soltani, **S. E. Mousavi Ghahfarokhi**, “Synthesis of chromium doped zinc ferrite nanoparticles by microwave combustion method”, 22nd symposium of crystallography and mineralogy of Iran, University of Shiraz (2015).

41- A. Emami, M. Z. Shoushtari, **S. E. Mousavi Ghahfarokhi**, “A study of structural and magnetic properties of nanoparticles doped with bismuth by microwave combustion method”, 1th conference of Nano physics and meta materials, University of Fasa (2015).

42- F. H. Ahmadi, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “An investigation of annealing temperature on the structure and magnetic properties of Y-type strontium hexaferrites nanostructure”, Conference of Physics of Iran , Ferdosi university of Mashad (2015).

43- Z. Sharifi, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “ An investigation of annealing temperature on the structural and magnetic properties of lead spinel ferrite nanoparticles”, 1th of Nano physics and meta materials, University of Fasa (2015).

44- F. H. Ahmadi, **S. E. Mousavi Ghahfarokhi**, M. Z. Shoushtari, “The effect of annealing time on the structural and magnetic properties of Y-type strontium hexaferrites nanostructural”, 1th conference of Nano physics and Meta materials, University of Fasa (2015).

45- R. K. Alikhani, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, “ An investigation of annealing temperature on the structural and magnetic properties of lead spinel ferrite nanoparticles”, 23 th symposium crystallography and mineralogy of iran, University of Damghan (2016).

46- E. M. Shobegar, **S. E. Mousavi Ghahfarokhi**, “The effect of sintering time on the structural and magnetic properties of strontium spinel ferrite nanoparticles”, 24 th Symposium of crystallography and mineralogy of iran Technology University of Shahroud (2017).

47- F. Kazemniya, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, "The effect of sintering time on structural and magnetic properties of W-type lead hexaferrite nanostructures", 24 th Symposium of crystallography and mineralogy of Iran, Technology University of Shahroud (2017).

48- M. Z. Shoushtari, N. A. Varnosfaderani, **S. E. Mousavi Ghahfarokhi**, "A study of structural properties of  $Sr_{1-x}Pb_xCo_2Fe_{16}O_{27}$  nanostructures with  $x=0$  and  $x=0.2$ ", 25th symposium of crystallography and mineralogy of Iran, University of Yazd (2018).

49- M. R. Larki, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad, "Influence of annealing time on structural and magnetic properties of bismuth ferrite ( $BiFeO_3$ )", 25th symposium of crystallography and mineralogy of Iran, University of Yazd (2018).

50- N. Gomari, I. Kazeminezhad, **S. E. Mousavi Ghahfarokhi**, "Solvothral synthesis of rGO/SnO<sub>2</sub> nanocomposite with enhanced electrochemical performance", 7th International on Nanostructures (ICNS7), Technology University of Sharif (2018).

51- A. Rahimi, I. Kazeminezhad, **S. E. Mousavi Ghahfarokhi**, "Photocatalytic degradation of AO7 dye by SnS<sub>2</sub>/RGO nanocomposite under visible-light", 7th International on Nanostructures (ICNS7), Technology University of Sharif (2018).

52 –M. Ahmadi, **S. E. Mousavi Ghahfarokhi**, I. Kazeminezhad "An investigation of sintering temperature on structural, microstructural and magnetic properties of  $SrFe_{11}MnO_{19}$  nanoparticles synthesized by sol-gel method", The Annual Physics Conference of Iran (2018).

### **Computer and language skills:**

Computer programming skill: Matlab, FORTRAN

Graphical software: Photishap, Origin

### **Experimental Experiences:**

I am familiar with AFM, SEM, TEM, HRTEM, FESEM, XRD, STM, FT-IR, PL, Uv-Vsibel, Photo lithography,

### **Teaching experience:**

1-Elementary physics I, II, III

- 2- Thermodynamics
- 3- Analytical mechanics I and II
- 4- Superconductivity
- 5- Solid state physics
- 6- Advanced Solid state physics I, II (Ashcroft)
- 7- Electromagnetism I and II
- 8- Classical Electrodynamics (J. D. Jackson)
- 9- Advanced Electromagnetism (J. D. Jackson)
- 10- Magnetic Properties of Materials
- 11- Mathematical Physics I, II, III
- 12- Ferrites and its applications

**Advances course passed:**

- Physics of Superconductivity (Taught by Dr. M. Zargar Shoushtari)
- Physics of Superfluidity (Atkins) - (Taught by Dr. M. Zargar Shoushtari)
- Advanced Solid state physics (Ashcroft) - (Taught by Dr. A. Pourghazi)
- Condensed Matter Physics I, II (Ashcroft, Tsylo) - (Taught by Dr. M. Zargar Shoushtari)
- Advanced Quantum Mechanics (J. J Sakurai) - (Taught by Dr. M. Soltanketabi)
- Relativistic Quantum Mechanics (Greiner) - (Taught by Dr. M. Jafarpour)
- Statistical Mechanics I, II (R. K. Pathria) - (Taught by Dr. M. Zargar Shoushtari)
- Classical Electrodynamics (J. D. Jackson) - (Taught by Dr. A. Parvaresh)
- Classical Mechanics (H. Goldentan) - (Taught by Dr. A. Parvaresh)
- Specil Topics about Bi-baed superconductor (Taught by Dr. M. Zargar Shoushtari)
- Specil Topics about Ferrites (Taught by Dr. J. Amighiyan)

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