

DR. Mostafa Mehdipour Aghbolagh



Date& Place of Birth: 31/03/1988 Tabriz/Iran
Current Address: Sabanci University/ Turkiye
Marital status: Single
GSM: +90 531 327 47 50
Phone: +90 216 300 13 06
Fax: +90 216 483 9885
E-mail: mostafa.aghbolagh@sabanciuniv.edu

EDUCATION

2021-2025	PhD in Materials Science and Engineering, Sabancı University/Turkiye 3.70 / 4.00
2010-2013	MS in Materials Science and Engineering, Tabriz University/ Iran 3.50 / 4.00
2000-2005	BS in Materials Science and Engineering, Tabriz University/ Iran 3.13 / 4.00

WORK EXPERIENCE

2025-present	Post Doctoral Research Fellow of Materials Science and Nanoengineering, Sabancı University/ Istanbul, Turkiye.
2015-2021	Materials engineer (heat treatment section) Machine Sazi Tabriz/Tabriz, Iran
2014-2015	CNC man (milling and wirecut machines) work on form- fill-seal systems, Milad Afzar Tabriz / Tabriz, Iran
2013-2014	Researcher (renewable energies research section), University Tabriz (Jad branch) / Tabriz, Iran

RESEARCH EXPERIENCE

2024-present	Post Doctoral Research Fellow, Enhanced Multi-Scale Interface Engineering of Polyetheretherketone (PEEK) Composites Reinforced with Carbon-Based Materials for Superior Thermal, Electrical, and Mechanical Performance, Prof. Dr. Mehmet Yıldız and Prof. Dr. Burcu Saner Okan, Sabanci University, Istanbul, Turkiye.
2021-2024	PhD Dissertation, Design and manufacturing of functionalized hexagonal boron nitride reinforced multi-scale epoxy composites with enhanced thermal conductivity, (advisor) Prof. Dr. Mehmet Yıldız, (Co-Advisor) Prof. Dr. Burcu Saner Okan, Sabanci University, Istanbul, Turkiye.
2013-2014	Researcher position, researching on hot tap system and renewable energies, (manager) Dr. Ali Farshbaf, University of Tabriz (Jad branch), Tabriz, Iran
2010-2013	MS Thesis, Study on $\text{SrFe}_{12}\text{O}_{19}/\text{ZnFe}_2\text{O}_4$ nano composite coatings, (advisor) Prof. Dr. Abbas Kianvash, University of Tabriz, Tabriz, Iran.
2006-2010	Undergraduate Final Project, Study on Cements with low Alkan, (advisor) Prof. Dr. leylla gasemi, University of Tabriz, Tabriz, Iran.

ONGOING PROJECTS at Sabancı University

2025-current	“Lightweight, sustainable and energy-efficient designs and production methods for upcycled Graphene reinforced hybrid Composites (Light-G-Comp), SU-coordinator, Khalifa University, Strata, Farplas, Eurotec, Euronova, 4 M USD budget-3-year project (role: Post Doctoral Research Fellow)
2025-current	Fabrication of nanomaterial coated glass fibers with enhanced electrical properties-2 nd phase, Aselsan Funded project-industrial project, 8 months (role: Post Doctoral Research Fellow)
2024-current	State-of-the-Art Sandwich Composite Panels: Leveraging Polyethersulfone (PESU) foam for Mechanical Performance project, <i>not funded project</i> (role: Post Doctoral Research Fellow)

PUBLICATIONS

1. **Mostafa Mehdipour**, Semih Dogan, Arvin Taghizadeh Tabrizi, Mohammad Sajad Sorayani Bafqi, Bertan Beylergil, Mehmet Yildiz, Burcu Saner Okan, Engineering interfacial thermal transport through comparative analysis of electrospraying and dip coating of silanized h-BN for thermo-mechanical enhancement of CF/Epoxy composites, **Composites Part A: Applied Science and Manufacturing**, 2025, Vol.199, <https://doi.org/10.1016/j.compositesa.2025.109264>.
2. **Mostafa Mehdipour**, Sila Horozoğlu, Kadir Sarı, Mehmet Yildiz, A comprehensive experimental study on the development of high-performance sandwich panels using polyether sulfone (PESU) thermoplastic core and skin for aircraft interior applications, **Composites Part B: Engineering**, 2025, Vol. 307, <https://doi.org/10.1016/j.compositesb.2025.112958>.
3. **Mostafa Mehdipour**, Bertan Beylergil, Mehmet Yildiz, Burcu Saner Okan, Influence of functionalized h-BN particle interphase and interface regulation with structural design on the directional thermal conductivity and mechanical performance of carbon fiber/epoxy composites, **Composites Part A: Applied Science and Manufacturing**, 2025, Vol.190, <https://doi.org/10.1016/j.compositesa.2025.108708>.
4. **Mostafa Mehdipour**, Semih Doğan, Marjan Hezarkhani, Kuray Dericiler, Muhammet Nasuh Arık, Cennet Yıldırım, Bertan Beylergil, Mehmet Yildiz, Burcu Saner Okan, Enhancing directional thermal conductivity in hexagonal boron nitride reinforced epoxy composites through robust interfacial bonding, **Polymer Composites**, 2025, Vol.46, <https://doi.org/10.1002/pc.29136>.
5. **Mostafa Mehdipour**, Bertan Beylergil, Mehmet Yildiz, Burcu Saner Okan, Experimental validation and numerical modeling of interfacial effects in silanized hexagonal boron nitride (h-BN) reinforced epoxy composites by tailoring silane concentration, **Composite Interfaces**, 2025, Vol.139, <https://doi.org/10.1080/09276440.2025.2460344>.
6. Samet Ozyigit, **Mostafa Mehdipour**, Abdulrahman Al-Nadhari, Arvin T Tabrizi, Semih Dogan, Kuray Dericiler, Bertan Beylergil, Mehmet Yildiz, Burcu S Okan, A comprehensive experimental study on the effects of hexagonal boron nitride particle size and loading ratio on thermal and mechanical performance in epoxy composites, **Journal of Composite Materials**, 2024, Vol.58, <https://doi.org/10.1177/00219983241247910>.
7. Mehdad Fathi, Mir Saman Safavi, Soheil Mahdavi, Sahand Mirzazadeh, Vahid Charkhesht, Ali Mardanifar, **Mostafa Mehdipour**, Co-P alloy matrix composite deposits reinforced by nano-MoS₂ solid lubricant: An alternative tribological coating to hard chromium coatings, **Tribology International**, 2021, Vol.159, <https://doi.org/10.1016/j.triboint.2021.106956>.

8. **Mostafa Mehdipour**, Mehdad Fathi, Hooman Shokrollahi, Investigating the microwave absorption properties of nanostructure composite particles of $\text{SrFe}_{12}\text{O}_{19}/\text{ZnFe}_2\text{O}_4$, **Journal of the Australian Ceramic Society**, 2021, Vol.57, <https://doi.org/10.1007/s41779-020-00536-3>.
9. Mehdad Fathi, **Mostafa Mehdipour**, Hooman Shokrollahi, Investigation of microwave absorption properties of multi-layer nanostructure $\text{BaFe}_{12}\text{O}_{19}$ /epoxy composites, **Journal of Materials Science: Materials in Electronics**, 2020, Vol.31, <https://doi.org/10.1007/s10854-020-04247-0>.
10. **Mostafa Mehdipour**, Mina Moradnia, Mehdad Fathi, Hooman Shokrollahi, Analyzing the Microwave Absorption Properties of $\text{BaFe}_{12}\text{O}_{19}$, $\text{Ba}_4\text{MnZnFe}_{36}\text{O}_{60}$ and NiFe_2O_4 Particles, **Journal of Electronic Materials**, 2020, Vol.49, <https://doi.org/10.1007/s11664-020-08317-1>.
11. Mehdad Fathi, **Mostafa Mehdipour**, Hooman Shokrollahi, Microwave absorption properties of nanostructure composite particles based on $\text{SrFe}_{12}\text{O}_{19}$, **Journal of the Australian Ceramic Society**, 2020, Vol.56, <https://doi.org/10.1007/s41779-019-00414-7>.
12. **Mostafa Mehdipour**, Mehdad Fathi, Sina Ariaee, Hooman Shokrollahi, Effect of Silanization on the Magnetic and Microwave Absorption Properties of $\text{SrFe}_{12}\text{O}_{19}$ Nanostructure Particles, **Journal of Electronic Materials**, 2019, Vol.48, <https://doi.org/10.1007/s11664-019-07317-0>.
13. Sina Ariaee, **Mostafa Mehdipour**, Mina Moradnia, Spectroscopy of peaks at microwave range for nanostructure $\text{SrFe}_{12}\text{O}_{19}$ and NiFe_2O_4 ferrite particles, **Journal of Magnetism and Magnetic Material**, 2017, Vol.429, <https://doi.org/10.1016/j.jmmm.2017.01.030>.
14. **M Mehdipour**, H Shokrollahi, A Bahadoran, Investigating the Exchange-Coupling Interaction in Nanostructure Composite Particles of $\text{SrFe}_{12}\text{O}_{19}$ and ZnFe_2O_4 , **Journal of electronic materials**, 2014, Vol.43, DOI: 10.1007/s11664-014-3363-3.
15. **M Mehdipour**, H Shokrollahi, Comparison of microwave absorption properties of $\text{SrFe}_{12}\text{O}_{19}$, $\text{SrFe}_{12}\text{O}_{19}/\text{NiFe}_2\text{O}_4$, and NiFe_2O_4 particles, **Journal of electronic materials**, 2013, Vol.114, <https://doi.org/10.1063/1.4816089>.
16. E Hoseinkhani, **M Mehdipour**, H Shokrollahi, Comparison of direct and indirect measurements of the saturation magnetization of barium hexaferrite synthesized by coprecipitation, **Journal of electronic materials**, 2013, Vol.42, DOI: 10.1007/s11664-012-2446-2.

PATENTS

1. M. Yıldız, **M. Mehdipour**, An improved sandwich panel, 2025-GE-31156, EPTAS.
 2. S.Ariaee, A. Balazadeh, **M. Mehdipour**, Automatic system for adhesion strength testing of paints and coatings, 2022, University of Tabriz, N107436.
-

CONFERENCES/POSTER PRESENTATIONS

1. **M Mehdipour**, A. Kianvash, Comparative Analysis of the Microwave Absorption Properties of $\text{SrFe}_{12}\text{O}_{19}$ and NiFe_2O_4 Particles, Iranian Ceramic Society, IRAN, 2014.

SKILLS

- 1- Work with **XRD, FTIR, RAMAN, SEM, CT scan X-Ray** and **visual optic microscopy** analysis techniques.
- 2- Familiar with **DSC, TGA** analysis techniques.
- 3- Work with **tensile, 3-point** analysis techniques.
- 4- Work with CNC Machines (**electro spraying, milling machines and Wire-cut machines**)
- 5- Work with Universal Machines (**Lathe, grinding and sandblast machines**)
- 6- Work with heat treatment processes (**hot-press, hardening, annealing, tempering**)
- 7- Work with measuring magnetic properties of materials (**Magnet-Physik C-300**).
- 8- Work with software (**SolidWorks, Powermill, AutoCAD, office collection and MATLAB**).

REFERENCES

Prof. Dr. Mehmet Yıldız
Vice-president of Sabanci University
(Previous director of SU-IMC),
Tuzla 34956 Istanbul, Turkey
Phone: +90 (216) 300 13 07
GSM: 05379864146
e-mail: mehmet.yildiz@sabanciuniv.edu

Prof. Dr. Burcu Saner Okan
Faculty Members of Materials Science and
Nanoengineering
Associated Faculty Member @Composite
Research Center (SUIMC)
Sabanci University
Phone: +90 (216) 300 13 06
GSM: 05327938891
e-mail: burcu.saner@sabanciuniv.edu