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Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
(not set)	(not set)	Tenured	Full Time	17

Papers in Conferences

1. S. Goudarzi et al. ,Eco-friendly recovery of cochineal dye from wastewater for textile printing: synthesis and application of a MIL-53(Al)nano pigment ,The 9th International Color and Coatings Congress (ICCC 2025) ,Kish ,7-8 May 2025.
2. IMPACT OF MORDANTS ON DYEING OF SILK WITH SUSTAINABLE NATURAL COLORANT EXTRACTED FROM CASSIA FISTULA BROWN PODS ,5th International Anatolian Scientific Research Congress ,2023.
3. M. Hosseinezhad, K. Gharanjig ,Synthesis and application of an organic dye in nanostructure solar cells device ,20th International Conference on Nanotechnology Materials and Application ,9 2018, رم 17.
4. M. Hosseinezhad, S. Moradian, K. Gharanjig ,The Synthesis and Application of an Organic Dye for Solar Cell ,The 22nd Iranian Seminar of Organic Chemistry ,19 8 2018, تبریز.
5. 2 ,& M. Hosseinezhad, K. Gharanjig, S. Moradian ,Synthesis of an organic dye for dye-sensitized solar cells ,20th Iranian Chemistry Congress ,17 7 2018, مشهد.
6. M. Hosseinezhad, K. Gharanjig ,Preparation of dye-sensitized solar cells based on new organic dye ,20th Iranian Chemistry Congress ,17 7 2018, مشهد.
7. M. Hosseinezhad, K. Gharanjig ,Synthesis and investigation of an organic dyes for dye-sensitized solar cells ,The 25th Iranian Seminar of Organic Chemistry ,2 9 2017, تهران.
8. M. Hosseinezhad, K. Gharanjig ,Investigation of green dye-sensitized solar cells based on natural dyes ,19th International Conference on Chemical and Food Engineering ,21 6 2017, وین.
9. M. Hosseinezhad, S. Rouhani ,Synthesis and investigation of new organic dyes in dye-sensitized solar cells ,19th Iranian Chemistry Congress ,20 2 2017, شیراز.
10. M. Hosseinezhad, K. Gharanjig ,Fabrication and investigation of nanostructured dye-sensitized solar cells using ZnO and TiO₂ nanoparticle ,International Biennial Conference on Ultrafine Grained and Nanostructured Materials ,12 11 2017, کیش.
11. M. Hosseinezhad, K. Gharanjig ,Synthesis and application of organic dye in nanostructure dye solar cell ,3rd International Conference on Nanotechnology ,27 8 2015, استانبول.

12. M. Hosseinnzhad, S. Moradian, K. Gharanjig ,The synthesis of an organic dyes based on thioindigo for dye-sensitized solar cells ,The Energy and Materials Conference ,25 2 2015, مادرید.
13. M. Hosseinnzhad, S. Moradian, K. Gharanjig ,Investigation of photovoltaic properties of dye-sensitized solar cells based on indigo dyes in the presence of an anti-aggregation agent ,The Energy and Materials Conference ,25 2 2015, مادرید.
14. M. Hosseinnzhad, S. Moradian, K. Gharanjig ,The Synthesis of Organic Dye for Nanostructure Dye Solar Cell ,The 22nd Iranian Seminar of Organic Chemistry ,19 8 2014, تبریز.

Papers in Journals

1. Mozghan Hosseinnzhad , Sohrab Nasiri , Javad Movahedi , Mehdi Ghahari.Improving the efficiency of organic sensitizers with various anchoring groups for solar energy application.Solar Energy,مجلد ۲۲۸,۲۰۲۰ شماره صفحات ۲۱۱.
2. M. Hosseinnzhad , A. Mahmoudi Nahavandi , S. Nasiri,Smart Tools for Optimizing Dye Loading in Efficient DSSCs: Hybrid ANN-MOGA Strategy,ChemEngineering,pp. 3,2026.
3. M. Anandan et al.,High triplet hexahydroacridine derivatives as a host prevent exciton diffusion to adjacent layers in solution processed OLEDs,Organic Electronics,2025.
4. H. Bahman et al.,Stabilization and sustained release of rutin dye via eco-friendly Zn/Al-LDH adsorbent: kinetic, thermodynamic, and antioxidant investigation,Journal of Molecular Structure,Vol. 1319,pp. 139616,2025.
5. Heart engineering of photovoltaic devices: preparation new Ru dyes using thioindigo and phenothiazine,Applied Organometallic Chemistry,Vol. 39,pp. e7766,2025.
6. Investigation of the combination of indoline and naphthalimide in the preparation of photosensitizers for photovoltaic devices,Journal of Electronic Materials,Vol. 54,pp. 473,2025.
7. Formulation and characterization of BBR loaded niosomes using saponin as a nonionic biosurfactant investigating synergistic effects to enhance antibacterial activity,Scientific Reports,pp. 5231,2025.
8. M. Rabiei et al.,Light-emitting electrochemical cells based on mechanochromic, thermally activated delayed fluorescence fish-shaped structures consisting of carbazole derivatives as emitters in the active layer,Organic Electronics,Vol. 141,pp. 107214,2025.
9. H. Bahman et al.,Synthesis and characterization of an eco-friendly nano-hybride based on luteolin-loaded zinc-aluminum layered double hydroxide for biological application,International Journal of Environmental Science and Technology,Vol. 22,pp. 3545,2025,ISI.
10. M. Hosseinnzhad , K. Gharanjig , S. Adeel , A. Mahmoudi Nahavandi,Introduction of new combination of bio-mordant from agriculture waste for eco-dyeing of wool yarns,Research Journal of Textile and Apparel,Vol. 29,pp. 284,2025.
11. M. Hosseinnzhad , K. Gharanjig , S. Nasiri , M. Fathi,Study of the presence of thioindigo in photosensitizers based on phenothiazine: synthesis and photovoltaic evaluation in DSSCs,Synthetic Metals,Vol. 312,pp. 117885,2025,ISI.
12. M. Rabiei et al.,D–A–D' TADF emitters for LEEC fabrication: Meta vs ortho-linking controls color and efficiency,Results in Engineering,pp. 107598,2025.
13. Investigation of using amine and acetylamine functional units on naphthalimide dyes for photovoltaic devices,Pigment and Resin Technology,Vol. 54,pp. 589,2025,ISI.
14. S. Shirahmad Haghighi , R. Jafari , M. Hosseinnzhad,Color gamut analysis of low-cost dye-sensitized solar cells using natural dyes,Coloration Technology,pp. 172,2025.
15. S.A.R. Naqvia et al.,Modern ecofriendly approach for extraction of luteolin natural dye from weld for silk fabric and wool yarn dyeing,Sustainable Chemistry and Pharmacy,2024.
16. S. Nasiri et al.,What is TADF (thermally activated delayed fluorescence) compared to the mechanisms of FL (fluorescence), PH (phosphorescence), and TTA (triplet-triplet annihilation) based on a novel naphthalimide sulfonylphenyl derivative as a host?,Journal of Photochemistry and

Photobiology, A: Chemistry, Vol. 447, pp. 115289, 2024.

17. Introduction thioindigo as new high stability unit in Ru-complex for DSSCs: Theoretical and photovoltaic investigation, *Optical Materials*, Vol. 150, pp. 115273, 2024.
18. S. Goudarzi et al., Enhanced removal of cochineal dye from textile effluents using MIL-53(Al): optimization, kinetics and thermodynamic studies, *Prog. Color Colorants Coat.*, pp. 16-1, 2024.
19. Investigation of the use of food waste in renewable energy production: extraction, fabrication and characterization of natural photosensitizers in DSSCs, *Sustainable Energy Technologies and Assessments*, Vol. 72, pp. 104066, 2024.
20. S. Nasiri et al., Acceptor-phenyl-donor mechanochromic dyes based on 9-Bromoanthracene, *Journal of Molecular Structure*, Vol. 1278, pp. 134953, 2023.
21. Environmentally dyeing of wool yarns using combination of Myrobalan and Walnut husk as bio-mordant, *Prog. Color Colorants Coat.*, pp. 197-205, 2023.
22. 1 et al., New insights into improving the photovoltaic performance of dye-sensitized solar cells by removing platinum from the counter electrode using a graphene-MoS₂ composite or hybrid, *Micromachines*, Vol. 14, pp. 2161, 2023.
23. S. Barkaat et al., Sustainable microwave-assisted extraction of santalin from red sandal wood powder (*Pterocarpus santalinus*) for bio-coloration of mordanted silk fabric, *Separation*, Vol. 10, pp. 118, 2023.
24. M. Hosseinezhad, & Z. Ranjbar, A review on flexible dye-sensitized solar cells as new sustainable energy resources, *Pigment and Resin Technology*, 2023.
25. S. Nasiri et al., Investigation of the influence of persulfurated benzene derivatives on optical and carrier mobility properties, *Materials Letters*, Vol. 342, pp. 134323, 2023.
26. M. Hosseinezhad, M. Ghahari, G. Mobarhan, S. Rouhani, Towards low cost and green photovoltaic device: using natural photosensitizers and graphene oxide composite counter electrode, *Optical Materials*, 2023.
27. R. Jafari, K. Gharanjig, M. Hosseinezhad, Substitution of metal ion mordant with biomordants: effect on color and fastness of reseda dyed on wool yarns, *The Journal of The Textile Institute*, 2023.
28. P.P. Gawas et al., Significance of Zn Complex Concentration on Microstructure Evolution and Corrosion Behavior Al/WS₂, *Molecules*, Vol. 28, pp. 7290, 2023.
29. M. Hosseinezhad, K. Gharanjig, S. Adeel, A. Mahmoudi Nahavandi, Clean dyeing of wool yarns using oleaster fruit components as new bio-mordant: a step toward reducing agricultural waste, *Clean Technologies and Environmental Policy*, 2023.
30. M. Hosseinezhad, K. Gharanjig, S. Adeel, A. Mahmoudi Nahavandi, In quest for improvement of dyeing properties using agriculture waste: utilization of oleaster as new bio-mordant for wool yarns, *Environmental Science and Pollution Research*, Vol. 30, pp. 122262, 2023.
31. R. Ghomashi et al., Synthesis and investigation of the theoretical and experimental optical properties of some novel azo pyrazole sulfonamide hybrids, *Materials Letters*, pp. 132132, 2022.
32. S. Nasiri et al., Nanocomposite based on HA/PVTMS/Cl₂FeH₈O₄ as gas and temperature sensor, *Sensors*, pp. 10012, 2022.
33. Environmentally dyeing using dried walnut husk as bio-mordant: Investigation of creating new red and yellow shades on wool, *Journal of Natural Fibers*, Vol. 19, pp. 10953, 2022.
34. M. Hosseinezhad, K. Gharanjig, H. Imani, N. Razani, Green dyeing of wool yarns with yellow and black myrobalan extract as bio-mordant with natural dyes, *Journal of Natural Fibers*, Vol. 19, pp. 3893-3915, 2022.
35. Environmentally friendly dyeing of wool yarns using of combination of bio-mordant and natural dyes, *Environmental Progress & Sustainable Energy*, Vol. 41, pp. 13868, 2022.
36. M. Hosseinezhad, S. Nasiri, M. Fathi, G. Janusas, New configuration of optical photosensitizers for dye-sensitized solar cells: Combination of carbazole and xantone, *Journal of Materials Science: Materials in Electronics*, Vol. 33, pp. 17711, 2022.
37. Green miles in dyeing technology: metal-rich pumpkin extract in aid of natural dyes, *Environmental*

Science and Pollution Research,2022.

38. M. Hosseinezhad et al.,The effect of ultrasound on environmentally extraction and dyeing of wool yarns,Journal of Engineered Fibers and Fabrics,pp. 1-10,2022.

39. S. Adeel et al.,Eco-friendly bio-dyeing of bio-treated nylon fabric using Esfand (P. harmala) based yellow natural colorant,Journal of Engineered Fibers and Fabrics,pp. 1-15,2022.

40. N. Habib et al.,Environmental-friendly extraction of Peepal (Ficus Religiosa) bark-based reddish brown tannin natural dye for silk coloration,Environmental Science and Pollution Research,pp. 35048,2022.

41. Environmentally friendly dyeing of wool yarns using of combination of bio-mordants and natural dyes,Environmental Progress and Sustainable Energy,2022.

42. Enhanced thermal stability of anthocyanins through natural polysaccharides fromAngum gum and cress seed gum,Journal of Food Science,Vol. 87,pp. 585,2022.

43. Introduction of new configuration of dyes contain indigo group for dye-sensitized solar cells: DFT and photovoltaic study,Optical Materials,pp. 111999,2022.

44. S. Nasiri et al.,Mochanochromic and thermally activated delayed fluorescence dyes obtained from D-A-D' type, consisted of xanthen and carbazole derivatives as an emitter layer in organic light emitting diodes,Chemical Engineering Journal,pp. 1311877,2022.

45. S. Nasiri et al.,New approach of mechanochromic, thermally activated delayed fluorescence' dyes consisting of "thioxanthenone derivative as an acceptor unit and two carbazole derivatives as the donor units,Optical Materials,Vol. 127,pp. 112320,2022.

46. The effect of calcination temperature on the photophysical and mechanical properties of copper iodide (5 mol%)-doped hydroxyapatite,Optical Materials,Vol. 121,pp. 111559,2020.

47. M. Hosseinezhad , K. Gharanjig , N. Razani , H. Imani,Green dyeing of wool fibers with madder: study of combination of two biomordant on K/S and fastness,Fibers and Polymers,Vol. 21,pp. 2036,2020.

48. Novel complex coacervates based on Zedo gum, cress seed gum and gelatin for loading of natural anthocyanins,International Journal of Biological Macromolecules,Vol. 164,pp. 3349,2020.

49. M. Hosseinezhad , J. Movahedi , S. Nasiri,High stability photosensitizers for dye-sensitized solar cells: synthesis, characterization and optical performance,Optical Materials,Vol. 109,pp. 110198,2020.

50. M. Hosseinezhad , K. Gharanjig , S. Moradian,New D-A-A organic photo-sensitizers with thioindoxyl group for efficient dye-sensitized solar cells,Chemical Paper,Vol. 74,pp. 1487,2020.

51. M. Hosseinezhad et al.,Dye-sensitized solar cells based on natural photosensitizers: a green view from Iran,Journal of Alloys and Compounds,Vol. 828,pp. 154329,2020.

52. H. Gharanjig , K. Gharanjig , M. Hosseinezhad , S. M. Jafari,Development and optimization of complex coacervates based on zedo gum, cress seed gum and gelatin,International Journal of Biological Macromolecules,Vol. 148,pp. 31-40,2020.

53. M. Hosseinezhad,Enhanced Performance of Dye-Sensitized Solar Cells Using Perovskite/DSSCs Tandem Design,Journal of Electronic Materials,Vol. 48,pp. 5403,2019.

54. J. Movahedi , H. Haratizadeh , N. Falah , M. Hosseinezhad,Investigation of effect of thiophene-2-acetic acid as an electron anchoring group for a photovoltaic device,Opto-Electronic Review,Vol. 27,pp. 334-338,2019.

55. M. Hosseinezhad ,& H. Shaki,Investigation of photovoltaic properties of dye-sensitized solar cells based on azo dyes contain various anchoring groups,Pigment and Resin Technology,Vol. 46,pp. 481,2019.

56. M. Hosseinezhad, K. Gharanjig, S. Belbasi, S.H. Seied Saadati, M.R. Saeb,The use of sumac as a natural mordant in green production of Iranian carpet,Fibers and Polymers,Vol. 19,pp. 1908-1912,2018 6 21.

57. M. Hosseinezhad, A. Shadman , B. Rezaee , M. Y. Mohammadi , M.R. Saeb,Tandem organic dye-sensitized solar cells: Looking for higher performance and durability,Photonics and nanostructures-fundamentals and applications,Vol. 31,pp. 34-43,2018 4 17.

58. M. Hosseinnezhad , S. Rouhani , K. Gharanjig,Extraction and application of natural pigments for fabrication of green dye-sensitized solar cells,Opto-Electronic Review,Vol. 26,pp. 165-171,2018 3 12.
59. M. Hosseinnezhad ,& S. Rouhani,Synthesis and application of new fluorescent dyes in dye-sensitized solar cells,Applied Physic A,Vol. 123,pp. 694,2017 11 20.
60. 8M. Hosseinnezhad , K. Gharanjig , S. Moradian , M. R. Saeb,In quest of power conversion efficiency in natural-inspired dye-sensitized solar cells: Individual, co-sensitized or tandem configuration?,Energy,Vol. 134,pp. 864,2017 10 23.
61. M. Hosseinnezhad , R. Jafari , K. Gharanjig,Characterization of a green and environmentally friendly sensitizer for low cost dye-sensitized solar cells,Opto-Electronic Review,Vol. 25,pp. 93,2017 06 15.
62. 6M. Hosseinnezhad , A. Shadman , M. R. Saeb , Y. Mohammadi,A new direction in design and manufacture of co-sensitized dye solar cells: toward concurrent optimization of power conversion efficiency,Opto-Electronic Review,Vol. 25,pp. 229,2017.
63. M. Hosseinnezhad , A. Khosravi , K. Gharanjig , S. Moradian,The comparison of spectra and dyeing properties of new azonaphthalimide with analogues azobenzene dyes on natural and synthetic polymers,Arabian Journal of Chemistry,Vol. 10,pp. S3284,2017.
64. M. Hosseinnezhad,Cosensitization with vat-based organic dyes for enhanced spectral response of dye-sensitized solar cells,Journal of Electronic Materials,Vol. 46,pp. 2290,2017.
65. M. Hosseinnezhad , M. R. Saeb , S. Garshasbi , Y. Mohammadi,Realization of manufacturing dye-sensitized solar cells with possible maximum power conversion efficiency and durability,Solar Energy,Vol. 149,pp. 314,2017.
66. M. Hosseinnezhad ,& K. Gharanjig,Investigation of photovoltaic properties of nanostructure indoline dye-sensitized solar cells using changes in assembling materials,Pigment and Resin Technology,Vol. 46,pp. 393,2017.
67. M. Hosseinnezhad,A series of new organic sensitizers for dye-sensitized solar cells,Pigment and Resin Technology,Vol. 45,pp. 234,2016.
68. M. Hosseinnezhad ,& S. Rouhani,Characteristics of nanostructure dye-sensitized solar cells using food dyes,Opto-Electronic Review,Vol. 24,pp. 34,2016.
69. M. Hosseinnezhad,Investigation of photocurrent generation in dye sensitized solar cells based on nanostructured ZnO electrodes,Materials Technology,Vol. 31,pp. 24,2016.
70. M. Hosseinnezhad,Improvement performance of dye sensitized solar cells from co-sensitization of TiO₂ electrode with organic dyes based on indigo and thioindigo,Materials Technology,Vol. 31,pp. 348,2016.
71. M. Hosseinnezhad , S. Moradian , K. Gharanjig,Investigation of effect of anti-aggregation agent on the performance of nanostructure dye-sensitized solar cells,Opto-Electronic Review,Vol. 23,pp. 126,2015.
72. M. Hosseinnezhad , K. Gharanjig , S. Moradian,Effect of anti-aggregation agent on photovoltaic performance of indoline sensitized solar cells,Materials Technology,Vol. 30,pp. 189,2015.
73. K. Gharanjig ,& M. Hosseinnezhad,Effect of substituents moiety in organic sensitizer based on carbazole on the performance of nanostructure dye-sensitized solar cells,Pigment and Resin Technology,Vol. 44,pp. 292,2015.
74. M. Hosseinnezhad , S. Moradian , K. Gharanjig,Novel organic dyes based on thioindigo for dye-sensitized solar cells,Dyes and Pigments,Vol. 123,pp. 147,2015.
75. M. Hosseinnezhad , S. Moradian , K. Gharanjig,Fruit extract dyes as photosensitizers in solar cells,Current Science,Vol. 109,pp. 953,2015.
76. M. Hosseinnezhad , S. Moradian , K. Gharanjig,Synthesis and Characterization of Two New Organic Dyes for Dye-Sensitized Solar Cells,Synthetic Communications,Vol. 44,pp. 1,2014.
77. S. Rouhani , K. Gharanjig , M. Hosseinnezhad,Facile synthesis of 4-nitro-N-substituted-1,8-naphthalimide derivatives using ultrasound in aqueous media,Green Chemistry Letters and Reviews,Vol. 7,pp. 174,2014.
78. M. Hosseinnezhad , S. Moradian , K. Gharanjig , F. Afshar Taromi,Synthesis and Characterization of

- Eight Organic Dyes for Dye-Sensitized Solar Cells, *Materials Technology*, Vol. 29, pp. 112, 2014.
79. M. Hosseinnezhad , A. Khosravi , K. Gharanjig , S. Moradian, Synthesis of some monoazo acid dyes based on naphthalimides, *Asian Journal of Chemistry*, Vol. 21, pp. 4812, 2009.
80. Investigation of the effect of rGo/TiO₂ on photovoltaic performance of DSSCs devices, *Prog. Color Colorants Coat.*, Vol. 15, pp. 121, 2021.
81. M. Hosseinnezhad , M. Ghahari , H. Shaki , J. Movahedi, Investigation of DSSCs performance: the effect of 1,8-naphthalimide dyes and Na-doped TiO₂, *Prog. Color Colorants Coat.*, Vol. 13, pp. 177-185, 2020.