CURRICULUM VITAE

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Deputy of Pesticide Research Department
Head of pesticide residue laboratory

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Academic qualifications

PhD: Phytochemistry, Medicinal Plants and Drugs Research Institute, Shahid Beheshti University, Tehran.

MSc: Analytical Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan

BSc: Applied Chemistry, Sharif University of Technology, Tehran.

Theses supervised:

- Prof. Alireza Ghassempour, Shahid Beheshti University

Research interests:

• Metabolomics (case study: food safety, environmental analysis, pesticide stress, foodomics)

• Determination of pesticides, their residues and metabolites in food, agricultural

products, water and environment.

• Development of multiresidue extraction methods.

• Separation and detection techniques based on chromatography and mass spectrometry

• Extraction techniques such as QuEChERS, SPME, SPE, SME, LLE.

• Chemometrics methods for multivariate analysis and bioinformatics.

• Reduction of pesticide residue in agricultural products such as cold plasma, ozone and ultrasonic.

• Nano adsorbents in pesticide extraction/removal

• Carcinogenic and non-carcinogenic risk assessment

Selected research projects:

- "Determination of pesticide residues in honey", Researcher, 2022-2023.
- "Investigating the residue levels of the new combined fungicide Ares (SC56%) (Trifloxystrobin 14%+ Boscalid 42%)on grape in the control of grapevine powdery mildew", Researcher, 2024-2025.
- Estimating the effectiveness of the research, educational and promotional activities of the plant pest Research Institute in the last decade (2011-2024)", Co-Worker, 2024-2025.
- "Investigation of dissipation kinetics, safety evaluation and pre-harvest interval of some fungicides used in green-house cucumber and tomato", main Researcher, 2024-2026.
- "Investigation the status of glyphosate residue and the main metabolite (AMPA) in canola treated for the control of the gall flower", Researcher, 2023-2025.
- "Chemical weeds control in black cumin (Nigella sativa) fields of Golestan province and pesticide residue assessment in optimized treatment", Researcher, 2023-2025.
- "Investigation on efficacy of Emamectin benzoate (Revive II, ME 9.5%) insecticide for damage prevention of the red palm weevil (Rhynchophorus ferrugineus Oliv.) and study its residue in fruit and tissue of date palm", Researcher, 2022-2024.

- “Evaluation of several new fungicides efficacy in the control of late blight in potato and determination of their residue levels in daughter tubers”, Researcher, 2022-2024.

- “Investigating pesticide residues in raisins and risk assessment hazard”, Researcher, 2022-2023.

- “Investigation on the effectiveness of fungicides and effect of the spraying times in controlling grape bunch rot”, Researcher, 2021-2023.

- “Investigation on the efficiency and spraying programs intervals with fungicides on the control of cucumber downy mildew disease, pesticide residue investigation and hazard risk assessment”, Researcher, 2021-2023.

- “Investigation on effectiveness of fungicides and spraying intervals schedule for the management of gray mold disease of cucumber and pre-harvest interval determination”, Researcher, 2021-2023.

- “Quality Monitoring in agricultural products”, Project Leader in National Master Plan. 2021-2023.

- “Measurement of Pesticide Residue in Apple, Orange and Pistachio”, Researcher, 2022-2023.

- “The use of Organophosphate Hydrolase in decreasing of Diazinon, Malathion and Chlorpyrifos Residues in Environment”, Researcher, 2020-2022.

- “Pesticides residue evaluation in some greenhouse cucumber samples of south areas of Tehran”, Researcher, 2020-2022.

- “Evaluation of imaidacloprid residue and main metabolite’s by drenching method in Mazafati date fruit in Bam region”, Researcher, 2019-2021.

- “Magnetic Mesoporous Nanoparticles - Graphen Hybrid as an Efficient Adsorbent for the Extraction of Pesticides; Case Study: Chloropyrifos, Cypermethrin, Imidacloprid, Difenoconazole, Metalaxyl and Tetradifon Pesticides from Cucumber Samples”, Researcher, 2019-2021.

- “Efficacy of Afidopyropen (Inscalis® DC10%) and Spiropidion (Elestal® SC300) against the pistachio common psylla”, Researcher, 2019-2021.

- “Study of effectiveness of acaricide oberon spid (24% SC) for control of Tetranychus urticae on cucumber in greenhouses”, Researcher, 2018-2020.

- “Pesticide Residue measurement in saffron using LC-MS/MS”, project leader, 2018-2020.

- “Investigation on efficacy of Sivanto (SL 200%) against Vine cicada, Psalmocharias alhageos and study its residue in grapes”, 2020-2021.

- “Investigation on efficacy of Sivanto (SL 200%) insecticide for controling of the red palm weevil (Rhynchophorus ferrugineus Oliv.) and study its residue in date palm”, Researcher, 2020-2021.

- “Simultaneous liquid chromatographic for determination of chlorpyrifos and the major impurities, sulfotep and 3,5,6-trichloro-pyridinol, in technical formulations”, Researcher, 2019-2020.

- “Design of a colorimetric sensor array based on gold and silver nanoparticles with different surface coating for detection and discrimination of pesticides used in strawberry cultivation”, Co-Worker, 2020-2023.

- “National Maximum Residue Limits (MRLs) determination of pesticides in oil seeds and pome, stone and small fruits, and tree nuts”, Co-Worker, 2016-2018.

- “Hollow mesoporous silica nanoparticles based biodegradable delivery nanosystem for slow and pH Controlled release of deltametrin as a green cargo and enhancing its stability and efficiency”, Co-Worker, 2016-2018.

- “Exhibition of valid method for extraction and analysis of spirotetramate (movento) insecticide and the main metabolite spirotetramate-enol in pistachio”, Researcher, 2015-2017.

- “Study of effectiveness of acaricide abamechtin (Agrimac gold SC 8.4%) to control of Tetranychus urticae on cucumber in greenhouses”, Researcher, 2017-2018.

- “National Maximum Residue Limits (MRLs) determination of pesticides in cereals and tuber and root vegetables”, Researcher, 2017-2019.

- “National Maximum Residue Limits (MRLs) pesticide determination in tropical and semi-tropical fruits”, Co-Worker, 2017-2019.

- “Studying the efficacy of fipronil SC 20% (Fiprin ®) against grape cicada, Cicadatra alhageus Kol (Hemiptera: Cicadidae)”, Researcher, 2017-2018.

- “National Maximum Residue Limits (MRLs) determination of pesticides in beans, fruiting vegetables and leafy vegetables”, Co-Worker, 2017-2019.

- “National Maximum Residue Limits (MRLs) determination of pesticides in agricultural products for improving food safety “, Project Leader, 2017-2019.

- “Rapid detection of organophosphate and carbamate pesticides in vegetables by enzymatic method – RBPR”, Co-Worker, 2015-2018.

- “Introduction of valid method for extraction and analysis of non-analytic polar pesticide residue with conventional and common methods (Paraquate, Glyphosate, 2,4-D, Glufosinate, MCPA and Abamectin)” Project Leader, 2019.

- "Study of effectiveness of new acaricide cyflumetofen 20% SC to control of Tetranychus urticae on cucumber in greenhouses", Researcher, 2015-2016.
- "Determination of imidacloprid maximum residue levels (MRL) in pistachio in different regions of Iran", Co-Worker, 2015-2017.
- "Determination of acetamiprid maximum residue levels (MRL) in pistachio in different regions of Iran", Co-Worker, 2015-2017.
- "Effect of cold plasma in elimination of diazinon residue in cucumber", Researcher, 2015-2016.
- "Qualitative and quantitative study of pesticide residues in vegetables from central stores of vegetables and fruits in Tehran", Colleague, 2012-2013.
- "Strategic plan of pesticide residue in agricultural products and environment", Researcher, 2008-2010.
- "Revision and determination of pesticide maximum residue levels (MRLs) in vegetables,Fruits, oil seeds, grains, cereal for Iran", Researcher, 2007-2010.
- "Spectrophotometric determination of imidacloprid insecticide in potato samples by Rank Annihilation Factor Analysis (RAFA) method and compared with HPLC", Researcher, 2007-2010.
- "Investigation the carbaryl residue in lettuce of Iran", Researcher, 2007-2010.
- "Use of Solid Phase Micro Extraction(SPME) for extraction of endosulfan from cucumber samples", Researcher, 2006-2008.
- "Investigation on diazinon and oxydemeton-methyl residues in cucumbers and tomato grown in Kerman greenhouses", Researcher, 2004-2007.

Selected publications:

Journal papers:

1) Ghanati, K., Shafaroodi, H., Basaran, B., Moslemizadeh, A., **Mahdavi, V.,** Sadighara, M., ... & Sadighara, P. **(2024).** Strategies to reduce neurotoxic acrylamide in biscuits, a systematic review. *Toxicology Reports*, 101751.

2) Shahbazian, M., Zamani, A., Mehdinia, A., Khosravi, Y., & **Mahdavi, V. (2024).** Polychlorinated biphenyls (PCBs) in the Persian Gulf and Gulf of Oman: baseline report on occurrence, distribution, and ecological risk assessment. *Environmental Monitoring and Assessment*, *196*(11), 1003.

3) Hejazi, L., Mahboubi-Rabbani, M., **Mahdavi, V.,** Alemi, M., Khanniri, E., & Bayanati, M. **(2024).** A critical review on sodium benzoate from health effects to analytical methods. *Results in Chemistry*, 101798.

4) Rohani, F. G., **Mahdavi, V.,** & Assari, M. J. **(2024).** Pesticide residues in fresh Mazafati date fruit, soil, and water, and assessment of potential health risks to consumers. *Environmental Science and Pollution Research*, *31*(17), 25227-25237.

5) Abdali, M., Ghasemi, F., Hosseini, H. M. S., & **Mahdavi, V. (2024).** Different sized gold nanoparticles for array-based sensing of pesticides and its application for strawberry pollution monitoring. *Talanta*, *267*, 125121.

6) Behbahan, A. K., **Mahdavi, V.,** Gordan, H., & Bagheri, H. **(2024).** Fabrication of neem tree seed shell biochar polyamide composite for determination of pesticides in environmental water samples by GC-ECD: A comparison of various hard shell nuts' biochar in thin-film microextraction setup. *Journal of Food Composition and Analysis*, *125*, 105743.

7) Peivasteh-Roudsari, L., Karami, M., Barzegar-Bafrouei, R., Samiee, S., Karami, H., Tajdar-Oranj, B., **Mahdavi, V.,** & Mousavi Khaneghah, A. **(2024).** Toxicity, metabolism, and mitigation strategies of acrylamide: a comprehensive review. *International Journal of Environmental Health Research*, *34*(1), 1-29.

8) Fakhri, Y., **Mahdavi, V.,** Ranaei, V., Pilevar, Z., Sarafraz, M., Mahmudiono, T., & Khaneghah, A. M. **(2024).** Ochratoxin A in coffee and coffee-based products: a global systematic review, meta-analysis, and probabilistic risk assessment. *Reviews on Environmental Health*, *39*(2), 211-220.

9) **Mahdavi, V.,** Solhi Heris, M. E., Mehri, F., Atamaleki, A., Moridi Farimani, M., Mahmudiono, T., & Fakhri, Y. **(2024).** Concentration and non-dietary human health risk assessment of pesticide residues in soil of farms in Golestan province, Iran. *International Journal of Environmental Health Research*, *34*(2), 968-978.

10) **Mahdavi, V.,** Heidari, A., & Mousavi Khaneghah, A. **(2024).** Probabilistic risk assessment of endocrine disrupting pesticides in Iran. *International Journal of Environmental Health Research*, *34*(3), 1355-1369.

11) Azizsoltani, A., Hatami, B., Zali, M. R., **Mahdavi, V.,** Baghaei, K., & Alizadeh, E. **(2023).** Obeticholic acid-loaded exosomes attenuate liver fibrosis through dual targeting of the FXR signaling pathway and ECM remodeling. *Biomedicine & Pharmacotherapy*, *168*, 115777.

12) Sadighara, P., **Mahdavi, V.,** Tahmasebi, R., & Saatloo, N. V. **(2023).** Cell proliferation assay for determination of estrogenic components in food: a systematic review. *Reviews on Environmental Health*, *38*(4), 621-627.

13) Farhadi, S., Ma'mani, L., Kermani, M. J., Ghanbari, A., Naji, A. M., Zeinalabedini, M., & **Mahdavi, V. (2023).** Rice husk-derived biogenic silica nanoparticles and zinc oxide nanoparticles as nano-additives for improving in vitro quince rootstock propagation. *Plant Cell, Tissue and Organ Culture (PCTOC)*, *155*(2), 531-539.

14) Madadi, A., Hosseinpour, Z., Talebpour, Z., Abedi, G., & **Mahdavi, V. (2023).** A modified QuEChERS method for the extraction of imidacloprid insecticide from date fruit. *Research and Innovation in Food Science and Technology*, *12*(2), 155-168.

15) Aghayani, E., Shekoohiyan, S., Behnami, A., Abdolahnejad, A., Pourakbar, M., Haghnazar, H., **Mahdavi, V.** & Mohammadi, A. **(2023).** Health risk assessment due to the presence of heavy metals in drinking water resources of Maragheh city. *Iranian Journal of Health and Environment*, *16*(1), 31-52.

16) Behbahan, A. K., **Mahdavi, V.**, Radpour, S., Javanmardi, H., & Bagheri, H. **(2023).** From waste to health: Application of MOF modified walnut biochars for the determination of twenty pesticides in wheat flour by ultra-high performance liquid chromatography-tandem mass spectrometry. *Food Chemistry*, *405*, 134881.

17) **Mahdavi, V.,** Gordan, H., & Heidari, A. **(2023).** Human health risk assessment of spiropidion and the main metabolites SYN547305 (spiropidion-enol), SYN 547435, and SYN 548430 in pistachio with UHPLC-MS/MS. *Journal of Food Composition and Analysis*, *121*, 105353.

18) Hasnaki, R., Ziaee, M., & **Mahdavi, V. (2023).** Pesticide residues in corn and soil of corn fields of Khuzestan, Iran, and potential health risk assessment. *Journal of Food Composition and Analysis*, *115*, 104972.

19) **Mahdavi, V.,** Heidari, A., & Mousavi Khaneghah, A. **(2023).** Probabilistic risk assessment of endocrine disrupting pesticides in Iran. *International Journal of Environmental Health Research*, 1-15.

20) **Mahdavi, V.,** Omar, S. S., Zeinali, T., Sadighara, P., & Fakhri, Y. **(2023).** Carcinogenic and non-carcinogenic risk assessment induced by pesticide residues in fresh pistachio in Iran based on Monte Carlo simulation. *Environmental Science and Pollution Research*, *30*(14), 40942-40951.

21) **Mahdavi, V.,** Solhi Heris, M. E., Mehri, F., Atamaleki, A., Moridi Farimani, M., Mahmudiono, T., & Fakhri, Y. **(2023)**. Concentration and non-dietary human health risk assessment of pesticide residues in soil of farms in Golestan province, Iran. *International Journal of Environmental Health Research*, 1-11.

22) Peivasteh-Roudsari, L., Karami, M., Barzegar-Bafrouei, R., Samiee, S., Karami, H., Tajdar-Oranj, B., **Mahdavi, V.** & Mousavi Khaneghah, A. **(2022).** Toxicity, metabolism, and mitigation strategies of acrylamide: a comprehensive review. *International Journal of Environmental Health Research*, 1-29.

23) Fakhri, Y., **Mahdavi, V.,** Ranaei, V., Pilevar, Z., Sarafraz, M., Mahmudiono, T., & Khaneghah, A. M. **(2022).** Ochratoxin A in coffee and coffee-based products: a global systematic review, meta-analysis, and probabilistic risk assessment. *Reviews on Environmental Health*.

24) Khoshnam, F., Ziaee, M., Daei, M., **Mahdavi, V.,** & Mousavi Khaneghah, A. **(2022).** Investigation and probabilistic health risk assessment of pesticide residues in cucumber, tomato, and okra fruits from Khuzestan, Iran. *Environmental Science and Pollution Research*, *29*(17), 25953-25964.

25) **Mahdavi, V.,** Gordan, H., Ramezani, S., & Mousavi Khaneghah, A. **(2022).** National probabilistic risk assessment of newly registered pesticides in agricultural products to propose maximum residue limit (MRL). *Environmental Science and Pollution Research*, 1-10.

26) Eslami, Z., **Mahdavi, V.,** & Mofrad, A. A. **(2022).** Simultaneous multi-determination of pesticide residues in barberry: A risk assessment study. *Journal of Food Composition and Analysis*, *110*, 104576.

27) **Mahdavi, V.,** Eslami, Z., Omidvari, Z., Rezadoost, H., & Fakhri, Y. **(2022).** Carcinogenic and non-carcinogenic risk assessment induced by pesticide residues in honey of Iran based on Monte Carlo simulation. *Journal of Food Composition and Analysis*, *109*, 104521.

28) Aryan, S., Mortazavian, A. M., Mohammadi, F., **Mahdavi, V.,** Moazami, N., & Jazaeri, S. **(2022).** Physicochemical properties of saponin containing Acanthophyllum laxiusculum extract: example application in foam stability and qualitative parameters for malt beverage industry. *Journal of Food Science and Technology*, *59*(4), 1577-1587.

29) Ramezani, S., **Mahdavi, V**., Gordan, H., Rezadoost, H., Conti, G. O., & Khaneghah, A. M. **(2022).** Determination of multi-class pesticides residues of cow and

human milk samples from Iran using UHPLC-MS/MS and GC-ECD: A probabilistic health risk assessment. *Environmental Research*, *208*, 112730.

30) **Mahdavi, V.,** Eslami, Z., Gordan, H., Ramezani, S., Peivasteh-Roudsari, L., Maʿmani, L., & Khaneghah, A. M. **(2022).** Pesticide residues in green-house cucumber, cantaloupe, and melon samples from Iran: A risk assessment by Monte Carlo Simulation. *Environmental Research*, *206*, 112563.

31) **Mahdavi, V.,** Gordan, H., Peivasteh-Roudsari, L., & Fakhri, Y. **(2022).** Carcinogenic and non-carcinogenic risk assessment induced by pesticide residues in commercially available ready-to-eat raisins of Iran based on Monte Carlo Simulation. *Environmental Research*, *206*, 112253.

32) **Mahdavi, V.,** Eslami, Z., Molaee-Aghaee, E., Peivasteh-Roudsari, L., Sadighara, P., Fakhri, Y., & Ravanlou, A. A. **(2022).** Evaluation of pesticide residues and risk assessment in apple and grape from western Azerbaijan Province of Iran. *Environmental Research*, *203*, 111882.

33) Sadighara, P., Mahdavi, V., Tahmasebi, R., & Saatloo, N. V. **(2022).** Cell proliferation assay for determination of estrogenic components in food: a systematic review. *Reviews on Environmental Health*.

34) **Mahdavi, V.,** Eslami, Z., Golmohammadi, G., Tajdar-oranj, B., Behbahan, A. K., & Khaneghah, A. M. **(2021).** Simultaneous determination of multiple pesticide residues in Iranian saffron: A probabilistic health risk assessment. *Journal of Food Composition and Analysis*, *100*, 103915.

35) Eslami, Z., **Mahdavi, V.,** & Tajdar-Oranj, B. **(2021).** Probabilistic health risk assessment based on Monte Carlo simulation for pesticide residues in date fruits of Iran. *Environmental Science and Pollution Research*, *28*(31), 42037-42050.

36) **Mahdavi, V.,** Heris, M. E. S., Dastranj, M., Farimani, M. M., Eslami, Z., & Aboul-Enein, H. Y. **(2021).** Assessment of Pesticide Residues in Soils Using a QuEChERS Extraction Procedure and LC-MS/MS. *Water, Air, & Soil Pollution*, *232*(4), 1-10.

37) Koushkestani, M., Abbasi-Moayed, S., Ghasemi, F., **Mahdavi, V.,** & Hormozi-Nezhad, M. R. **(2021).** Simultaneous detection and identification of thiometon, phosalone, and prothioconazole pesticides using a nanoplasmonic sensor array. *Food and Chemical Toxicology*, *151*, 112109.

38) Behbahan, A. K., **Mahdavi, V.,** Roustaei, Z., & Bagheri, H. **(2021).** Preparation and evaluation of various banana-based biochars together with ultra-high performance

liquid chromatography-tandem mass spectrometry for determination of diverse pesticides in fruiting vegetables. *Food Chemistry*, *360*, 130085.

39) **Mahdavi, V.,** Behbahan, A. K., Moradi, F., & Aboul-Enein, H. Y. **(2021).** Analysis of alternative new pesticide (Fluopyram, Flupyradifurone, and Indaziflam) residues in pistachio, date, and soil by liquid chromatography triple quadrupole tandem mass spectrometry. *Soil and Sediment Contamination: An International Journal*, *30*(4), 373-383.

40) **Mahdavi, V.,** Taghadosi, F., Dashtestani, F., Bahadorikhalili, S., Farimani, M. M., Ma'mani, L., & Khaneghah, A. M. **(2021).** Aminoguanidine modified magnetic graphene oxide as a robust nanoadsorbent for efficient removal and extraction of chlorpyrifos residue from water. *Journal of Environmental Chemical Engineering*, *9*(5), 106117.

41) Tajdar-oranj, B., Peivasteh-roudsari, L., **Mahdavi, V.,** Behbahan, A. K., & Khaneghah, A. M. **(2021).** Simultaneous multi-determination of pesticide residues in pistachio from Iran's market: A probabilistic health risk assessment study. *Journal of Food Composition and Analysis*, *103*, 104085.

42) **Mahdavi, V.,** Garshasbi, Z., Farimani, M. M., Farhadpour, M., & Aboul-Enein, H. Y. **(2020).** Health risk assessment of neonicotinoid insecticide residues in pistachio using a QuEChERS-based method in combination with HPLC-UV. *Biomedical Chromatography*, *34*(3), e4747.

43) **Mahdavi, V.,** Ghorbani-Paji, F., Ramezani, M. K., Ghassempour, A., & Aboul-Enein, H. Y. **(2019).** Dissipation of carbendazim and its metabolites in cucumber using liquid chromatography tandem mass spectrometry. *International Journal of Environmental Analytical Chemistry*, *99*(10), 968-976.

44) **Mahdavi, V.,** Gholami, R., & Masdarolomoor, F. **(2019).** Simultaneous Determination of Spirotetramate and its Main Metabolite in Pistachio Using an Optimized QuEChERS Method and High Performance Liquid Chromatography. *Journal Pesticides in Plant Protection Sciences*, *5*(1), 1-20.

45) Sefidi, Z., Talebpour, Z., Abedi, G., **Mahdavi, V.,** & Aboul-Enein, H. Y. **(2018).** Modified QuEChERS-HPLC method for determination of sodium benzoate and potassium sorbate preservatives in dairy products. *Current Analytical Chemistry*, *14*(6), 571-582.

46) Mohammadnejad, M., Gudarzi, Z., Geranmayeh, S., & **Mahdavi, V. (2018).** HKUST-1 metal-organic framework for dispersive solid phase extraction of 2-methyl-4-chlorophenoxyacetic acid (MCPA) prior to its determination by ion mobility spectrometry. *Microchimica Acta*, *185*(10), 1-8.

47) **Mahdavi, V.,** Hamidi, H., Es-haghi, A., & Ghassempour, A. **(2018).** Elucidation of diazinon metabolites in rice plants by liquid chromatography ion-trap mass spectrometry. *International Journal of Environmental Analytical Chemistry*, *98*(14), 1342-1351.

48) Ganjeizadeh Rohani, F., **Mahdavi, V**., & Aminaee, M. M. **(2018).** Evaluation of Diazinon and Oxydemeton-methyl Residues by GC/NPD in Tomatoes Grown in Kerman Greenhouses.

49) Mohammadnejad, M., Farhadpour, M., **Mahdavi, V.,** & Tabrizchi, M. **(2017).** Rapid monitoring and sensitive determination of DDT and its metabolites in water sample using solid-phase extraction followed by ion mobility spectrometry. *International Journal for Ion Mobility Spectrometry*, *20*(1), 23-30.

50) Fahimi-Kashani, N., Rashti, A., Hormozi-Nezhad, M. R., & **Mahdavi, V. (2017).** MoS 2 quantum-dots as a label-free fluorescent nanoprobe for the highly selective detection of methyl parathion pesticide. *Analytical Methods*, *9*(4), 716-723.

51) Dorraki, N., **Mahdavi, V.,** Ghomi, H., & Ghasempour, A. **(2016).** Elimination of diazinon insecticide from cucumber surface by atmospheric pressure air-dielectric barrier discharge plasma. *Biointerphases*, *11*(4), 041007.

52) **Mahdavi, V.,** Ghanati, F., & Ghassempour, A. **(2016).** Integrated pathway-based and network-based analysis of GC-MS rice metabolomics data under diazinon stress to infer affected biological pathways. *Analytical biochemistry*, *494*, 31-36.

53) **Mahdavi, V.,** Farimani, M. M., Fathi, F., & Ghassempour, A. **(2015).** A targeted metabolomics approach toward understanding metabolic variations in rice under pesticide stress. *Analytical biochemistry*, *478*, 65-72.

54) Ganjeizadeh Rohani, F., **Mahdavi, V.,** & Aminaei, M. M. **(2014)**. Investigation on diazinon and oxydemeton-methyl residues in cucumbers grown in Kerman greenhouses. *Environmental monitoring and assessment*, *186*(7), 3995-3999.

55) Khodadady, M., Ramezani, M. K., **Mahdavi, V.,** Ghassempour, A., & Aboul-Enein, H. Y. **(2014).** Enantioseparation and enantioselective phytotoxicity of glufosinate ammonium on catechin biosynthesis in wheat. *Food analytical methods*, *7*(4), 747-753.

56) Abdollahi, H., & **Mahdavi, V. (2007).** Tautomerization equilibria in aqueous micellar solutions: a spectrophotometric and factor-analytical study. *Langmuir*, *23*(5), 2362-2368.

Other Papers:

- Spectrophotometric Measurement of Carbendazim Residue Levels in Cucumber and its Comparison with HPLC, **Vahideh Mahdavi**, Entomology and Phytopathology, 77(1), 2009: 59-77.
- Fast and Simple Extraction of Pesticide Residues in Medical Plants, **Vahideh Mahdavi**, Iranian Journal of Pharmaceutical Research, 12(2), 2013:1439.
- Risk Assessment Challenges and Bioethics in Nanobiotechnology, Leila Faravardeh, **Vahideh Mahdavi**, Journal of Biotechnology, 1, 2011.
- Analysis of flavor volatiles of some Iranian rice cultivars by SPME-GC-MS, Mohammad H. Fatemi, Hanieh Malekzadeh, Alireza Ghassempour, **Vahideh Mahdavi**, Caspian J. Chem. 3,2014: 35-43.

Conference papers:

• "Spectrophotometric Study of Microscopic Acidic Dissociation by Soft Modeling Multivariate Curve Resolution Methods", 7th Seminar of Chemistry, (2002), Tabriz University.

• "Spectrophotometric Study of Microscopic Acidic Dissociation by Iterative Target Transformation Factor Analysis", 12th Iranian Seminar of Analytical Chemistry, (2003), Mazandaran University.

• "Application of Multivariate Soft-Modeling Methods in Spectrophotometric Study of Tautomerization Equilibria in Micellar Solutions", 13th Iranian Seminar of Analytical Chemistry, Ferdowsi University, (2004), Mashhad.

• "Exogenous applications of salicylic acid abd bacillus subtilis for inducing resistance against cucumber root and stem rot disease caused cucumerinum", 28th International horticultural congress, (2010), Lisboa Congress Centre.

• "The effect of salicylicacid as a plant defence elicitor and bacillus subtilis asa biocontrol agent, on cucumber root and stem rot caused by fusarium oxysporum F.SP Radicis Cucumerinum", 62th International Symposium on Crop Protection, (2010), Gent, Belgium.

• “Biosensors as Useful and Diagnostic Tools for Environmental and Food Monitoring and Analysis”, the first seminar of the role of basic science in increasing health, (2010), shahid beheshti university.

• “Analysis of Metabolomic Data Using Tree Diagrams: Case study On Rice (Oryza Sativa) -Pesticide Stress”, 4th Iranian Biennial Chemometrics seminar, (2013), Department of Chemistry, Faculty of Sciences, Shiraz University, Shiraz, Iran.

• “Spectrophotometric Determination of Imidacloprid Insecticide in Potato samples by Rank Annihilation Factor Analysis (RAFA) Method and Comparison with HPLC”, 20nd Iranian Seminar of Analytical Chemistry, (2014), Isfahan University of Technology.

• “Determination of sodium benzoate and potassium sorbate preservatives in dairy products using quick, easy, cheap, effective, rugged and safe (QuEChERS)extraction followed by high performance liquid chromatography analysis”, 20nd Iranian Seminar of Analytical Chemistry, (2014), Isfahan University of Technology.

• “A targeted metabolomics approach to understand metabolites variations in Rice under diazinon stress”, 20nd Iranian Seminar of Analytical Chemistry, (2014), Isfahan University of Technology.

• “Investigation the carbaryl residue in lettuce of Iran”, 23rd National Congress of Food Science and Technology, (2014), Ghoochan Islamic Azad University.

• “Determination of imidacloprid in date palms employing quick, easy, cheap, effective, rugged and safe (QuEChERS) extraction technique followed by high performance liquid chromatography”, 2nd National Conference and Festival of Iran's date, (2015), Bam, Kerman.

• “A survey of metabolite identification of carbendazim in cucumber based on a modified QuEChERS extraction procedure combined with liquid chromatography ion trap mass spectroscopy ”, 4th National Congress on Medicinal Plants, (2015), Shahid Beheshti University.

• “Elucidation of diazinon metabolites in rice plants by liquid-chromatography ion-trap mass spectrometery”, 3rd International Congress of Chemistry and Chemical Engineering, (2016), Shahid Beheshti University.

• “Use of Solid Phase Micro Extraction(SPME) for extraction of endosulfan from cucumber samples”, 3rd International Congress of Chemistry and Chemical Engineering, (2016), Shahid Beheshti University.

• “Simultaneous determination of neonicotinoid insecticides and their metabolites in pistachio using a modified Quick, Easy, Cheap, Effective, Rugged, and Safe (QuEChERS) method”, 5th National Congress on Medicinal Plants, (2016), Isfahan University of Medical Science.

• “*Measurement of glyfosate in rice*”, 5th National Congress on Medicinal Plants, (2016), Isfahan University of Medical Science.

• “Pesticide Residue in determination of bioterrorism and food safety”, 3rd National Congress on Passive Defense, (2018), Karaj.

• “Determination and Estimation of MRLs in food safety ”, 3rd National Congress on Passive Defense, (2018), Karaj.

• “HKUST-1 metal-organic framework for dispersive solid phase extraction of 2-methyl-4-chlorophenoxyacetic acid (MCPA Herbicide) in Agricultural Products”, 8th National Congress on Medicinal Plants, 24-25 th April (2019), Tarbiat Modarres University, Tehran, Iran.

• “Residue Levels and Risk Assessment of Pesticides in Pistachio of Iran”, 8th National Congress on Medicinal Plants, 24-25 th April (2019), Tarbiat Modarres University, Tehran, Iran.

• “Exhibition of Valid Method for Extraction and Analysis of Spirotetramate Insecticide and the Main Metabolite Spirotetramate-Enol in Pistachio”, 8th National Congress on Medicinal Plants, 24-25 th April (2019), Tarbiat Modarres University, Tehran, Iran.

- **“**Residues of Multi-Class Pesticides from Cow and Human Milk samples from Iran using UHPLC-MS/MS and GC-ECD: A Probabilistic Health Risks study”, 27th Iranian Seminar of Analytical Chemistry (ISAC), 23-25 August 2022, University of Zanjan, Zanjan, Iran.

- “Carcinogenic and Non-carcinogenic Risk Assessment Induced by Pesticide Residues in Commercially Available Ready-To-Eat Raisins of Iran Based on Monte Carlo Simulation”, 27th Iranian Seminar of Analytical Chemistry (ISAC), 23-25 August 2022, University of Zanjan, Zanjan, Iran.

- “Probabilistic Risk Assessment of Endocrine Disrupting Pesticides in Iran”, International Conference on Tayyeb Food, 9-10 November 2022, Mashhad, Iran.

- “Evaluation of Honey Health from the Perspective of Pesticide Residues”, International Conference on Tayyeb Food, 9-10 November 2022, Mashhad, Iran.

- “Investigating the effect of soapwort extract (Saponaria officinalis) on the reduction of chlorpyrifos pesticide residues in pistachio product”, 22nd International Chemistry Congress of the Iranian Chemical Society, 2024, Tehran, Iran.

- “Enhancing Pesticide Residue Quantification in Honey through Integrated Chemo-physical and Chemometric Separation using LC-MS Spectrometry: Comparison with Multiple Reaction Monitoring”, The 9th Biennial Chemometrics Seminar of the Iranian Chemical Society, 2023, Ghazvin.

Books:

- Strategic plan in pesticide research, IRIPP, 2008
- Pesticide Residue in Agricultural Products, IRIPP, 2018

Thesis Supervisor:

- "Simultaneous determination of neonicotinoid insecticides and their metabolites in pistachio using a modified Quick, Easy, Cheap, Effective, Rugged, and Safe (QuEChERS) method", Shahid Beheshti University, 2016.

- "Exhibition of valid method for extraction and analysis of spirotetramate (movento) insecticide and the main metabolite Spirotetramate-Enol in pistachio", Shahrood University of Technology, 2018.

- "Quantification of pesticide residues in soil of Golestan Province", Shahid Beheshti University, 2019.

- " Determination of pesticide residues in cucumber using a magnetic solid phase extraction technique", Shahid Beheshti University, 2019.

- "Investigating the possibility of using an optimized QuEChERS method for extraction and measurement of cypermethrin, chloropyrifos and trifluralin residues in saffron", Faculty of Food Engineering-Department of Food and Technology Science, Science and Research Branch, Islamic Azad University, 2019.

- " Using herbal biomass as an extractive phase for the determination of trace amounts of pesticides", Sharif University of Technology, 2019.

- "pesticide residue determination in honey samples in Iran", Shahid Beheshti University, 2021.

- "pesticide residue determination in milk (row, mother breast, pasteurized and dry) in Iran" , Shahid Beheshti University, 2021.

- "Investigation the status of glyphosate residue in canola treated for the control of the gall flower", Shahid Beheshti University, 2023.

- "Using plant extracts to reduce pesticide residues", Shahid Beheshti University, 2023.

Thesis Advisor:

- Determination of MCPA in water and food samples using Ion mobility spectrometry, Alzahra University, 2018.

- Extraction and Measurement of Imidacloprid Pesticide in Dates with QuEChERS Extraction Method, Alzahra University, 2015.

- Chloropyrifos Measurement in Rice and Water of Rice Field in Mazandaran Sorkhrood Wetland, Islamic Azad University, 2016.

Software and E-publications:

- SPSS
- SAS
- MATLAB
- Experimental Design
- Design Expert
- Crystal Ball
- Monte Carlo Simulation

Other achievements:

• ***Extraction*** of pesticides residue in agricultural products, food and environmental samples (LLE, SPE, SPME, QuEChERS, Biomass, nano-magnetic absorbents).

• ***Analysis*** of pesticides residue by GC-ECD, NPD, MS and HPLC and LC-MS/MS.

• ***Good experienced*** with GC, GC-MS, LC-MS/MS, HPLC and RBPR (Rapid Bioassay of pesticide Residue).