

CURRICULUM VITAE

Personal information

Name: Mehri Seyed Hashtroudi

Nationality: Iranian

Contact address: Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS), No.3, Etemadzade St., Fatemi Ave., Tehran-Iran

Tel.: +98-21-66944873

Fax: +98-21-66944869

e-mail: hashtroudi@inio.ac.ir

EDUCATION

2008-2012, PhD in Phytochemistry, Department of Medicinal plants, Shahid Beheshti University, Tehran- Iran. Thesis: Analysis of Major Auxins and Carotenoids in Cyanobacterial isolates- *Anabaena*, *Nostoc* and *Hapalosiphone*

1991-1993, MSc. in Organic Chemistry, Tehran University, Iran, Thesis: Photoisomerization of 4-alkyl phenyl thiopyrans

1985-1990, BSc. In Chemistry, Tehran University, Iran

PROFESSIONAL EXPERIENCE (Scientific activities)

2012- Present, Assistant Prof. of Phytochemistry, Iranian National Institute for Oceanography and Atmospheric Science (INIOAS)

Apr. 2015- Apr 2020, Head of Marine Chemistry Lab

Nov.2012-Nov. 2013, Head of Ocean Sciences Research Center

2008-2012, Research Associate, PhD student

Sep. 2005- 2008, Research Associate, Head of Marine Chemistry Lab, Dept. of Marine living Sciences department, Iranian National Institute for Oceanography (INIO)

1993-2005, Research Associate, Energy and Environment, Dept. of Energy, Material and Energy Research Center (MERC), Karaj, Iran

Research Interests:

Marine Natural Products, Marine chemistry, Application of analytical chemistry in the environmental measurements

Research Projects:

- Evaluation of total organic carbon (TOC) in water and cyclic aromatic hydrocarbons in surface sediment of Persian Gulf and Sea of Oman; Part of: coastal and offshore monitoring of Persian Gulf and Sea of Oman
- Determination and Source Identification of Polycyclic Aromatic Hydrocarbons (PAHs) in the Surface Sediments of Persian Gulf, Hormuz and Gulf of Oman (PGE1901)
- Pollution assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in the sediments of Chabahar region
- Investigation the effects of ecological parameters on coral reefs of eastern Persian Gulf
- Determination of major auxins in native Iranian Macroalga

- Determination of PAHs in the sediments of Hormoz Strait
- Determination of oil content in the algae from the Persian Gulf and detection of their major compounds.
- Considering the environmental impacts of algae bloom on Kish Island and Gorze by
- Determining the organic carbon and total organic matter in their sediments.
- The study of crude oil water soluble fractions on Frisian roach chemoreception
- Evaluating the potentiality of marine chemistry lab in determination of PAHs & PCBs in the sample of IAEA-MEL and sediments of Chabahar Gulf
- Coastal Habitat Mapping of Kish Island Using GIS, Persian Gulf
- Study on the sources of pollution and distribution mechanisms and their impacts on the marine environment of Indian ocean, phase I: The north-Western Indian ocean (Persian Gulf, Oman sea and Arabian sea)
- Identification of Marine Resources and Study on Chemical Ecology of Dominant Living Resources in Intertidal Regions of Chabahar Bay for Preliminarily Identification of Biomaterials
- Studies on Toxicity of Polycyclic Aromatic Hydrocarbons in Anzali Lagoon on Angel Fish
- Implementing of Quality Management System (ISO9001:2000)
- Removal of Surfactants from wastewaters by Rice Husk
- Determination of PAHs in the atmosphere of Tehran
- Use of Zeolites in organic synthesis
- Synthesis of Pulegone using Zubakhin method
- Electrochemical bromination-debromination of carbon-carbon double bond
- Novel one- pot multicomponent reactions for synthesis of heterocyclic compounds

Publications:

1. Aghadadashi, V., Mehdinia, A., Rezaei, M., Molaei, S., Hashtroudi, M.S., Ahmadian, F., Hamzhepour, A. and Rahnema, R., 2024. Basin scale monitoring of microplastics and phthalates in sediments from the Persian Gulf and the Gulf of Makran using GIS-based algorithms: Insights towards spatial variation and potential risk assessment. *Science of The Total Environment*, 927, p.171950.
2. Shariatmadari, Z., Zarezadeh, S., Riahi, H., Ghotbi-Ravandi, A.A., Seyed Hashtroudi, M. and Shahroudi, E., 2024. Cyanobacterial elicitor enhances the biomass of *Mentha piperita* L. and improves the production of high-value rosmarinic acid under in vitro culture of apical meristem. *BMC Plant Biology*, 24(1), p.190.
3. Fathi Vavsari, V., Seyed Hashtroudi, M. and Balalaie, S., 2023. Ru-Catalyzed One-Pot Synthesis of Heterocyclic Backbones. *Catalysts*, 13(1), p.87.
4. Hashtroudi, M.S., Aghadadashi, V., Mehdinia, A. and Fumani, N.S., 2023. Combining theoretical concepts and Geographic Information System (GIS) to highlight source, risk, and hotspots of sedimentary PAHs: A case study of Chabahar Bay. *Environmental Research*, 216, p.114540.
5. Hashtroudi, MS., Vavsari, F. and Balalaie, S., 2022. DABSO as a SO₂ gas surrogate in the synthesis of organic structures. *Organic & Biomolecular Chemistry*

6. Bateni, F., Mehdinia, A., Lundin, L. and Hashtroudi, M.S., 2022. Distribution, source and ecological risk assessment of polycyclic aromatic hydrocarbons in the sediments of northern part of the Persian Gulf. *Chemosphere*, p.133859.
7. Moradi, B., Zare Maivan, H., Seyed Hashtroudi, M., Sorahinobar, M. and Rohloff, J., 2021. Physiological responses and phytoremediation capability of *Avicennia marina* to oil contamination. *Acta Physiologiae Plantarum*, 43(2), pp.1-12.
8. Moradi, B., Kissen, R., Maivan, H.Z., Hashtroudi, M.S., Sorahinobar, M., Sparstad, T. and Bones, A.M., 2020. Assessment of oxidative stress response genes in *Avicennia marina* exposed to oil contamination– Polyphenol oxidase (PPOA) as a biomarker. *Biotechnology Reports*, 28, p.e00565.
9. Maghsoudlou, A., Momtazi, F. and Hashtroudi, M.S., 2020. Ecological Quality Status (EcoQs) of Chabahar sub-tropical bay based on multimetric macrobenthos-indexes approach: Response of bio-indexes to sediment structural/pollutant variables. *Regional Studies in Marine Science*, 40, p.101524.
10. Karkhaneh Yousefi, M., Seyed Hashtroudi, M., Mashinchian Moradi, A. and Ghasempour, A., 2020. Seasonal variation of fucoxanthin content in four species of brown seaweeds from Qeshm Island, Persian Gulf and evaluation of their antibacterial and antioxidant activities. *Iranian Journal of Fisheries Sciences*, 19(5), pp.2394-2408.
11. Chookalaini, H., Riahi, H., Shariatmadari, Z., Mazarei, Z. and Seyed Hashtroudi, M., 2020. Enhancement of total flavonoid and phenolic contents in *Plantago major* L. with plant growth promoting cyanobacteria. *Journal of Agricultural Science and Technology*, 22(2), pp.505-518.
12. Saleh, A., Samiei, J.V., Amini-Yekta, F., Hashtroudi, M.S., Chen, C.T.A. and Fumani, N.S., 2020. The carbonate system on the coral patches and rocky intertidal habitats of the northern Persian Gulf: Implications for ocean acidification studies. *Marine Pollution Bulletin*, 151, p.110834.
13. Bateni, F., Mehdinia, A. and Seyed Hashtroudi, M., 2019. Ecological risk assessment of polycyclic aromatic hydrocarbons in the Persian Gulf surface sediments, Bushehr. *Iranian Journal of Health and Environment*, 11(4), pp.563-574.
14. Moradi, B., Zare Maivan, H., Sorahinobar, M. and Hashtroudi, M.S., 2019. Determination of suitable housekeeping genes for normalization of quantitative real time PCR analysis of *Avicennia marina* under crude oil treatment. *Journal of Marine Science and Technology*, 17(4), pp.58-69.
15. Bateni, F., Mehdinia, A. and Seyed Hashtroudi, M., Polycyclic Aromatic Hydrocarbons In Offshore Surface Sediments Of The Northern Persian Gulf, Bushehr Province, *Journal of Oceanography*, 2019, 10 (37), 65-73
16. Moradi, B., Zare Maivan, H., Seyed Hashtroudi, M. and Sorahinobar, M., 2018. Effect of crude oil contamination on biomass and chlorophyll biosynthetic pathway pigments and elements content of *Avicennia marina* seedling. *Journal of Aquatic Ecology*, 7(4), pp.146-158.
17. Hashtroudi, M.S. and Aghadadashi, V., 2018. Sediment-associated polycyclic aromatic hydrocarbons and potential eco-hazards in Chabahar Bay, Iran. *Marine pollution bulletin*, 129(2), pp.875-883.
18. Karkhaneh Yousefi, M., Seyed Hashtroudi, M., Mashinchian Moradi, A. and Ghasempour, A.R., 2018. In vitro investigating of anticancer activity of fucoxanthin from marine brown seaweed species. *Global Journal of Environmental Science and Management*, 4(1), pp.81-90.
19. Riahi, H., Shariatmadari, Z., Khangir, M. and Seyed Hashtroudi, M., 2017. Cyanobacterial culture as a liquid supplement for white button mushroom (*Agaricus bisporus*). *Journal of Phycological Research*, 1(1), pp.38-46.

20. Vajed Samiei, J., Saleh, A., Shirvani, A., Sheijooni Fumani, N., Hashtroudi, M. and Pratchett, M.S., 2016. Variation in calcification rate of *Acropora downingi* relative to seasonal changes in environmental conditions in the northeastern Persian Gulf. *Coral Reefs*, 35(4), pp.1371-1382.
21. Lari, E., Abtahi, B. and Hashtroudi, M.S., 2016. The effect of the water soluble fraction of crude oil on survival, physiology and behaviour of Caspian roach, *Rutilus caspicus* (Yakovlev, 1870). *Aquatic Toxicology*, 170, pp.330-334.
22. Lari, E., Abtahi, B., Hashtroudi, M.S., Mohaddes, E. and Døving, K.B., 2015. The effect of sublethal concentrations of the water-soluble fraction of crude oil on the chemosensory function of Caspian roach, *Rutilus caspicus* (Yakovlev, 1870). *Environmental toxicology and chemistry*, 34(8), pp.1826-1832.
23. Shariatmadari, Z., Riahi, H., Abdi, M., Hashtroudi, M.S. and Ghassempour, A.R., 2015. Impact of cyanobacterial extracts on the growth and oil content of the medicinal plant *Mentha piperita* L. *Journal of Applied Phycology*, 27(6), pp.2279-2287.
24. Farrokhfall, K., Hashtroudi, M.S., Ghasemi, A. and Mehrani, H., 2015. Comparison of inducible nitric oxide synthase activity in pancreatic islets of young and aged rats. *Iranian journal of basic medical sciences*, 18(2), p.115.
25. Rahmanpoor S., Ghafourian H., Seyed Hashtroudi, M., Darvish Bastami K., 2013. Distribution and sources of polycyclic aromatic hydrocarbons in surface sediments of the Hormuz strait, Persian Gulf. *Marine Pollution Bulletin*, [http://dx.doi.org/10.1016/j.marpolbul.78\(1\),224-229](http://dx.doi.org/10.1016/j.marpolbul.78(1),224-229).
26. Moghadam, M. S., Ebrahimipour, G., Abtahi, B., Ghassempour, A., Seyed Hashtroudi, M., 2014. Biodegradation of polycyclic aromatic hydrocarbons by a bacterial consortium enriched from mangrove sediments. *Journal of Environmental Health Science and Engineering*, 12(1), 114.
27. Seyed Hashtroudi M., Shariatmadari Z, Riahi H., Ghassempour A., 2013. *Anabaena Vaginicola* and *Nostoc Calcicola* from northern Iran, as rich sources of major carotenoids, *Food Chemistry*, 136: 1148-1153.
28. Shariatmadari Z, Riahi H., Seyed Hashtroudi M, Ghassempour A., Aghashariatmadari Z., 2013. Plant growth promoting cyanobacteria and their distribution in terrestrial habitats of Iran. *Soil Science and Plant Nutrition* 59, 535–547
29. Seyed Hashtroudi M., Ghassempour A., Riahi H., Shariatmadari Z, Khanjir M, 2012. Endogenous Auxins in Plant Growth Promoting Cyanobacteria- *Anabaena vaginicola* and *Nostoc calcicola*, *Journal of Applied Phycology*, DOI: 10.1007/s10811-012-9872-7.
30. Mehdinia A., Ahmadifar M., Aziz-Zanjani M. S., Jabbari A., Seyed Hashtroudi M. (2012) Selective adsorption of 2,4-dinitrophenol on molecularly imprinted nanocomposites of mesoporous silica SBA-15/ polyaniline, *Analyst*, 137(18):4368-7.
31. Agah H., Fatemi M. R., Seyed Hashtroudi M. Baeyens W., 2012. A survey on the accumulation of trace metals in local fishermen hair from the northern Persian Gulf, along the Iranian coastline *The journal of Persian Gulf* 3(8), 1-12.
32. Rahmanpoor S, Ghafourian H, Seyed Hashtroudi M. Rabani M, Mehdinia A, Darvish Bastami K. Azimi A., 2012. The Study of Polycyclic Aromatic Hydrocarbons (PAHs) Contamination in Sediments of Hormoz Straight. *Journal of Oceanography* 3 (10) :37-44
33. Agah, H., Hashtroudi, M.S. and Baeyens, W., 2012. Trace metals and major elements in sediments of the northern Persian Gulf. *Journal of the Persian Gulf*, 3(7), pp.45-58.

34. Agah, H.; Seyed Hashtroudi M. Baeyens, W., 2011 Trace metals analysis in the sediments of the Southern Caspian Sea
35. Hadjebi M., Seyed Hashtroudi M., Bijanzadeh H.R, Balalaie S., 2011. Novel Four-Component Approach for the Synthesis of Polyfunctionalized 1,4-Dihydropyridines in Aqueous Media, *Helvetica Chimica Acta.*, 94(3): 382-388
36. Sajjadi N., Eghtesadi-Araghi P., Jamili S., Seyed Hashtroudi M. Farzadnia S., Mashinchian A., 2009. Seasonal Variations of n-6: n-3 Ratios and Fatty Acid Compositions in Foot and Tissue of Chiton lamyi in a High Primary Productivity Area, *American Journal of Environmental Sciences* 5(3): 278-284
37. Sajjadi N., Eghtesadi-Araghi P., Mashinchian A., Jamili S., Seyed Hashtroudi M. Farzadnia S., Seyed Hashtroudi M., 2009. Seasonal Variations of Fatty Acid Contents of *Saccostrea cucullata* at Intertidal Zone of Chabahar Bay. *Research Journal of Environmental Sciences* 3(3), 376-383.
38. Mohammadnejad M.; Seyed Hashtroudi M., Balalaie S. 2008, Efficient Synthesis of 2-Amino-6-aryl-5,6-dihydro-3H-pyrimidin-4-one Building Blocks via Domino Reaction , *Heterocyclic Communications*, 15 (6): 459
39. Ramezan pour S., Seyed Hashtroudi M., Bijanzadeh H.R., Balalaie S., 2008. A novel and efficient domino reaction for the one-pot synthesis of spiro-2-aminopyrimidinones, *Tetrahedron letters*, 49 (25): 3980-3982
40. Halek F., Nabi Bidhendi G.R., Seyed Hashtroudi M., Kavousi A., 2007. Distribution of Polycyclic Aromatic Hydrocarbons in Gas Phase in Urban Atmosphere, *International J. Environ. Res.*, 2(1): 97-102
41. Hossen Nia A., Seyed Hashtroudi M., Pazoki M., Banifatemi M., 2006. Removal of Surfactants from wastewaters by Rice Husk, , *Iranian Journal of Chemical Engineering*, 3(3): 44-50
42. Kazemzad M., Seyed Hashtroudi M., Balalaie S., 2004. Solvent-Free Protection of Carbonyl Groups Over “ Zeolite X” Under Microwave Irradiation *Chemistry: An Indian Journal* 1: 416-418
43. Balalalie S., Kowsari E ., Seyed Hashtroudi M., 2003. An efficient Method for the synthesis of 3-Cyao-6-hydroxy-2-(1H) pyridinones under microwave irradiation and solvent-free conditions, *Monatshefte fur chemie (Chemical Monthly)*, 134: 453-456
44. Balalaie S., M.Golizeh, Seyed Hashtroudi M., 2000. An efficient Method for the synthesis of 3-Cyao-6-hydroxy-2-(1H) pyridinones under microwave irradiation and solvent-free conditions, *Green Chemistry* , 2: 277-278
45. Balalaie S., A.Arabian, Seyed Hashtroudi M. , 2000. Zeolite HY and silica gel as new and efficient heterogenous catalysts for the synthesis of triarylimidazoles under microwave irradiation, *Monatshefte fur chemie (Chemical Monthly)*, 131: 945-948
46. Seyed Hashtroudi M., Saeb Nia S., Asadollahi H., Balalaie S., 2000. Microwave promoted synthesis of benzimidazole drivatives in solvent free in solvent free condition, *Indian Journal of Heterocyclic Chemistry*, 9: 307-308
47. Balalaie S., Seyed Hashtroudi M., A.Sharifi, 1999. Microwave assisted synthesis of triazones and 2-oxooxadiazinane in dry media, *J. Chem. Research*, 392-393
48. Pirelahi H., Seyed Hashtroudi M. M.S.Abaii, Y.R.Shariati, 1994. Novel photo-isomerization of some 2,4,4,6-tetrasubstituted 4H- thiopyrans to isomeric 2H- thiopyrans, *J. Photochemistry & Photobiology, A: Chem.*, 81: 21-25

49. Pirelahi H., Seyed Hashtroudi M.,1994. Selective photoisomerization of some 2,4,4,6-tetrasubstituted 4H-thiopyrans,*Phosphorous, Sulfur and Silicon*, 95-96: 475-476