

## Curriculum Vitae

### Personal Details

Name: Khosrow Aein Jamshid

Assistant professor in Inorganic Chemistry

Head of pollution division in National Shrimp Research Institute of Iran

Date and place of birth: 21/09/1973, Bushehr

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### Education:

**B. Sc.**, Chemistry, 1992-1996, Bu Ali Sina University (Hamedan).

**M. Sc.**, Inorganic Chemistry, Thermodynamic and spectroscopic properties of the triorganotin chloride adduct complexes, 1998-2000, Shiraz University.

**Ph.D.**, Inorganic Chemistry, Synthesis, spectroscopic and thermodynamic studies on the adduct formation of the transition metal Schiff base complexes with organotin chlorides, 2003-2007, Shiraz University.

### Professional Experiences:

-2000-2007: Head of Non-living research in Ecology Department of National Shrimp Research Institute of Iran.

-2007-2015: Head of National Shrimp Research Institute of Iran

-2015-continued: Head of pollution division in National Shrimp Research Institute of Iran

### Research Areas:

Synthesis, characterization and thermodynamic of polynuclear complexes of organotin compounds and transition metal Schiff bases.

Environmental Chemistry and Pollution,

Marine chemistry

Aquaculture research,

Strategic planning.

### **Membership in professional societies/Committees**

Member of Bushehr province working group on water, agriculture and natural resources, 2007– continued.

Member of research council of Iranian Fisheries Research Organization, 2007– 2015.

Member of research council of Bushehr province agriculture research, 2007– continued.

Member of organizing committee of Bushehr province shrimp culture, 2007– 2015.

Member of Bushehr province scientific roadmap committee, 2008– 2010.

Member of Bushehr province working group on research and technology, 2008– 2014.

Member of national committee of Iran red tide events, 2008– 2010.

Member of Bushehr province strategic planning committee, 2009– 2010.

Member of the technical committee for fisheries and aquaculture corresponding ISIRI / TC234, 2009– continued.

Scientific secretary of 3<sup>rd</sup> national shrimp conference of Iran, 2010.

Member of Editorial Board of Journal of aquatic sciences, Islamic Azad University, Branch of Bushehr, 2010– continued.

Member of Bushehr province working group on economic affairs, 2010– 2014.

Member of research council of Pars Special Economic Energy Zone, 2012– 2015.

Member of committee of Bushehr province biological marine threats, 2013– 2015.

Member of post graduate committee of Iranian Fisheries Research Organization, 2013– 2015.

Member of Bushehr province environmental assessment committee, 2014– continued.

Scientific secretary of national conference on early mortality syndrome of farmed shrimp, 2014.

Member of council policy and scientific committee of 4<sup>th</sup> national knowledge-based conference of the Persian Gulf, sea of opportunities, 2014– 2015.

Member of Bushehr province strategic planning committee, 2014– 2015.

Member of Bushehr province spatial planning committee, 2014– continued.

Member of scientific board of Environmental Monitoring and Assessment Journal, 2015– continued.

Chief Editor of Iranian Journal of Shrimp and Crustacean, 2016– continued.

### **Research Activities**

1. The effect of shrimp culture complexes on marine environment in Bushehr province, 1999-2003, Co-Conductor.
2. Hydrology and hydrobiology of the Persian gulf, 2000-2002, Co-Conductor.

3. Effects of Iraq-Kuwait war on the living environment and fisheries of the northern parts of the Persian gulf, 2001-2004, Co-Conductor.
  4. The monitoring of hydrology and hydrobiology of Persian gulf, 2003-2005, Co-Conductor.
  5. Environmental baseline study of the South Pars gas field of SPD6-SPD8 (Ceers Co.), 2004, Co-Conductor
  6. Environmental baseline study of the Reshadat-4 area in Lavan oil field, 2006, Co-Conductor.
  7. Iran shrimp strategic plan; Vision 2025, 2003-2005, Conductor.
  8. Study on the possibility of rehabilitation of aquatic communities in Nowruz, Soroush and Aboozar oil field areas, 2009-2011, Co-Conductor.
  9. Monitoring of red tide phenomenon in the Persian Gulf and Oman Sea, 2008-2011, Co-Conductor.
  10. The effect of *Cochlodinium*.sp bloom on shrimp culture complexes and hatcheries activities in Bushehr province, 2010-2011, Conductor.
  11. Mitigation of *Cochlodinium*.sp bloom by chemicals compounds and evaluation of their effect on *L. Vannamei* shrimp, 2010-2011, Spectator.
  12. Study on the effects of Pars Special Economic Energy Zone exploitation on marine biological resources, 2010-2011, Co-Conductor.
  13. Environmental impact assessment of Nile tilapia fish using brackish water in Bushehr province, 2010-2011, Co-Conductor.
  14. Ecological study of artificial reefs in Bushehr province waters, 2012-2013, Co-Conductor.
  15. Environmental management of Iranian coastal areas (Persian Gulf, Oman sea and Caspian Sea), 2012-2015, Co-Conductor.
  16. Environmental risk assessment of activity of specific pathogen free shrimp centers, 2012-2015, Conductor.
  17. Environmental impact assessment of national plan of specific pathogen free shrimp production on Bushehr coastal, 2013-2015, Co-Conductor.
  18. Evaluation of biological and physico-chemical parameters in coastal waters and their effects on the operation of the Bushehr nuclear power plant, 2013-2015, Conductor.
  19. Study on the thermal effluents of Bushehr nuclear power plant on the physico-chemical condition of Bushehr coastal waters and its cooling water intake, 2013-2015, Conductor.
  20. Identification and control of biofouling agents in water cooling system of Bushehr nuclear power plant, 2013-2016, Conductor.
- and 34 other projects.

**Publications:**

1. Thermodynamic of triorganotin compounds, *Can. J. Chem.*, Vol 79, 71-74, 2001.
2. Synthesis, characterization and equilibrium study of the dinuclear adducts formation between nickel (II) Salen-type complexes with diorganotin (IV) dichlorides in chloroform, *Inorganica Chimica Acta*, 2007, 360, 1725-1730.
3. Thermodynamic Studies of the Interaction of Nickel(II) Schiff Base Complexes with Diorganotin (IV) Dichlorides in Non Aqueous Solvents, *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, 2007, 37, 77-83.
4. Nickel (II) salophen-type complexes characterization and their thermodynamic studies with diorganotin (IV) dichlorides in chloroform, *Transition Metal Chemistry*, 2007, 32(6), 822-827.
5. Synthesis and the thermodynamic studies of the dinuclear adducts formation between dimethyltin(IV) dichloride with SalenH<sub>2</sub> and M<sup>II</sup>(Salen) complexes in chloroform, *Journal of Coordination Chemistry*, , 2008, 61 (7), 77-83.
6. The effects of probiotics (*Bacillus* sp.) on the growth and survival rate of White shrimp (*Litopenaeus vannamei*) in salinity 30ppt and 40ppt, *Iranian Scientific Fisheries Journal*, 2008, 2.
7. Synthesis and thermodynamic studies of the dinuclear adduct formation of diorganotin (IV) dichlorides with nickel(II) N<sub>2</sub>O<sub>2</sub> Schiff base complexes in chloroform, *Journal of Coordination Chemistry*, , 2009, 62 (7), 77-83.
8. Evaluation of water quality in Helle shrimp ponds, *Iranian Scientific Fisheries Journal*, 2009, 4.
9. Effects of Iraq-Kuwait war on the ecological condition and fisheries resources of Iranian parts of the Persian Gulf, *Journal of the Persian Gulf*, 2011, 2 (4).
10. Heavy Metals (Zn, Cu, Pb, Cd and Hg) contents and fatty acids ratios in two fish species (*Scomberomo ruscommerson* and *Otolithes ruber*) of the Persian Gulf, *Iranian Journal of Pharmaceutical Sciences*, 2011, 7 (3).
11. The effect of replacement of live food to formulated feed on growth and survival of shrimp larvae of *Litopenaeus vannamei*, *Iranian Scientific Fisheries Journal*, 2011, 3.
12. Growth, protein and carotenoids content of the microalgae, *Chaetoceros calcitrans* under different concentrations of salinity, *World Journal of Fish and Marine Sciences*, 2012, 4 (6).
13. Accumulation of heavy metals (Cd, Pb, Ni and V) in *L. Vannamei* shrimp based on size and gender in Bushehr shrimp complexes, *Journal of Animal Physiology and Development*, 2013, 22 (3).
14. Effect of algae powder of *Spirulina Arthrospira platensis* diet on growth and survival of western white shrimp (*Litopenaeus vannamei*), *Journal of Marine Science and Technology*, 2014, 12 (2).

15. Causes of harmful algal bloom outbreak of *Cochlodinium sp.* in Persian Gulf; problems, threats and control, *Journal of Aquatic Research*, under press.
16. The situation of microalgae bloomer around the shrimp farm complexes in Bushehr province in Persian Gulf, *International Journal of Advanced Technology and Engineering Research*, 2014, 4 (2).
17. Assessment level of heavy metals (Pb, Cd, Hg) in four fish species of Persian gulf (Bushehr-Iran), *International Journal of Advanced Technology and Engineering Research*, 2014, 4 (3).
18. The relation between physico-chemical factors and algal bloomer species in Bushehr province waters, in Persian Gulf, *Iranian Journal of Fisheries Sciences*, 2016, 2.
19. Ecological status assessment of Bidkhun mangrove swamp using macrofauna community structure, Bushehr province, Persian Gulf, *Aquaculture, Aquarium, Conservation & Legislation Bioflux*, 2016, 9(1).
20. Heavy metal concentration in the surface sediment of Bidkhun mangrove forest, Nayband bay, Iran, *Advances in Environmental Sciences Bioflux*, 2016, 8(2).
21. Effects of drought on aquatic stocks in Bushehr province, *The Quarterly Journal of Marine science and technology*, 2016, 77.
22. A Glance into the shrimp culture in the world and I.R Iran, *The Quarterly Journal of Shrimp and Crustacean*, 2016, 1.

#### **Presentation in Conferences:**

1. The environmental effects of organic tin compounds, *First National Conference of Iran Environmental Crisis*, Ahvaz, Iran, Dec. 2001.
2. Synthesis and adduct formation between Ni(II) Schiff base ..., *The 9<sup>th</sup> Iranian Inorganic Chemistry Conference*, Semnan, Iran, Feb. 2006
3. Synthesis and thermodynamic study of the novel di- and trinuclear adducts ..., *The 9<sup>th</sup> Iranian Inorganic Chemistry Conference*, Semnan, Iran, Feb. 2006
4. Thermodynamic study of the dinuclear adduct formation between phenyltin... , *The 9<sup>th</sup> Iranian Inorganic Chemistry Conference*, Semnan, Iran, Feb. 2006
5. Effects of Iraq-Kuwait War on the marine environment and fisheries resources ... by GIS, *Int. Conf. on Monitoring & of Marine Pollution*, Kish, Iran, Dec. 2008.
6. Distribution of red tide bloom of *Cochlodinium.sp* in Bushehr coastal waters, *The 8th International Conference on Marine Science and Technology*, Khoramshahr, Iran, Dec 2009.
7. Effects of effluents of South Pars on marine environment, *The 1<sup>st</sup> National Conference on Sustainable Development of Pars Energy Zone*, Asalouyeh, Iran, Feb. 2010.

8. The level of biosecurity in Bushehr shrimp culture complexes: prevention approaches and research activities, the 7<sup>th</sup> UNITAR Series on Sea and Human Security, Tokyo, Japan, Sep. 2010.
9. The policies and strategies of Iran shrimp industry, Vision 2025, *The 3rd National Conference of Shrimp, Bushehr*, Iran, Dec. 2010.
10. The effect of ecological conditions on the fluctuations of shrimp fishing in Bushehr province waters, *The 3rd National Conference of Shrimp*, Bushehr, Iran, Dec. 2010.
11. The environmental effects of pollution of the marine industry based on TPH and PAH NOAA-HD distribution in Iranian waters of Persian Gulf, *The Fifth International Conference on Environmental Engineering*, Tehran, Iran, Nov 2011.
12. Evaluation of farmed shrimp production in the Bushehr province, *The 1<sup>st</sup> National Conference on aquaculture*, Anzali, Iran, Nov. 2011.
13. The global trend of Shrimp production and strategic policies to achieve the objectives of Iran shrimp Vision 2025, *The 1<sup>st</sup> National Conference on aquaculture*, Anzali, Iran, Nov. 2011.
14. Roadmap of Iran shrimp aquaculture development, *The 1<sup>st</sup> National Conference on aquaculture*, Anzali, Iran, Nov. 2011.
15. The urgently need of integrate management for controlling of nutrient enrichment in coastal waters of Bushehr (Persian Gulf), *International Symposium on "Marine Ecosystem, Natural Products and their Bioactive Metabolites"*, Bogor, Indonesia, Oct 2011.
16. Effects of climate change on marine reserves in the province, *The 1<sup>st</sup> National Conference on Climate Change and its Impacts on Fisheries*, Tehran, Iran, Feb. 2012.
17. Effects of Ecological Condition on the Fluctuations of Shrimp Fishing, in the Persian Gulf and Strategic Approaches Towards Marine Food Security, *6th World Fisheries Congress*, Edinburgh, UK, May 2012.
18. Biological and Environmental Model for Prediction of Shrimp Catch in Bushehr Province Waters, in Persian Gulf, *6th World Fisheries Congress*, Edinburgh, UK, May 2012.
19. Interactions between Industrial Activity and Marine Environment in the northern part of the Persian Gulf. *Int. Conf. Land Sea Interaction in the Coastal Zone*, Jounieh, Lebanon, Nov. 2012.
20. The effects of dust storm on the phytoplankton community in Iranian waters of the Persian Gulf, *International Conference on Oceanography and Sustainable Marine Production*, Kuantan, Malaysia, Oct. 2013.
21. Study on the concentration of heavy metals in marine environments and aquatics, and evaluation of different methods for removal of heavy metals, *The 1st National Electronic Conference on New Achievement in Food Science*, Zabol, Iran, July 2014.

22. Community structure of bloomer phytoplanktons around the shrimp culture sites in Bushehr province coastal, in Persian Gulf, *International Congress On Estuaries & Coastal Protected Areas*, Izmir, Turkey, Oct. 2014.
  23. Objectives, policies and strategies of I.R. Iran shrimp industry, *4th national knowledge-based conference of the Persian Gulf, sea of opportunities*, Bushehr, Iran, April 2015.
  24. Risk assessment of production of *Litopenaeus vannamei* in the first SPF shrimp research pilots in Iran, *International Conference of Middle East and Central Asia Aquaculture 2015*, Tehran, Iran, Dec. 2015.
  25. Iran shrimp industry strategic planning, Vision 2025, *3rd International Conference on Aquaculture & Fisheries*, UK, London, Sep. 2016.
- and 30 other conference papers.

### **Innovations:**

The process of using chitosan solution for removal of cadmium, lead and nickel from fish tissue, Iranian Center for Intellectual Property, 2014.

Production of experimental vaccine for White Spot shrimp disease by gamma irradiation, Iranian Center for Intellectual Property, 2014.

### **Honors and Awards:**

Distinguished researcher of Iran shrimp research institute, 2002.

Distinguished researcher in Bushehr province, Donated by governor of Bushehr state, 2009.

Distinguished research manager in Bushehr province, Donated by governor of Bushehr state, 2010.

Scientific activities in the province, Donated by planning affairs vice governor of Bushehr state, 2010.

Evaluation of environmental challenges and crisis in Iran, Vice president of Iran environmental protection organization, 2012.

Distinguished researcher of Bushehr province, Donated by governor of Bushehr state, 2013.

Establishment of Persian Gulf SPF shrimp national research center, Donated by vice president of agriculture ministry and head of agricultural research, education and extension organization, 2014.

### **Courses Taught:**

General chemistry laboratory 1 and 2, Shiraz University, 1998.

Inorganic chemistry laboratory 1 and 2, Shiraz University, 1999.

Application of computer in chemistry, Al-Zahra collage, 2000-2002.

The principal of industrial chemistry, Persian Gulf University, 2004.

The principal of water treatment, Islamic Azad University, science and research branch of Bushehr, 2011-2014.

Water chemistry, General chemistry, Organic chemistry, Inorganic chemistry, Analytical chemistry and Food analytical chemistry, Bushehr province agricultural education center, 2007-2016.

### **Supervision and advising of postgraduate students:**

#### **M. Sc students:**

1. Assessment of heavy metals in sediment and aquatic phase in the Soltani estuary; Bushehr, Supervisor, 2008-2009.
  2. Effect of heavy metals (Lead, Mercury, Cadmium, Copper and Zinc) on fatty acids ratio in fish tissue in Bushehr hunting grounds, Advisor, 2009-2010.
  3. Study on the effect of salinity on growth, density and chemical composition of *Chaetoceros* algae in culture media of Conway, Advisor, 2010-2010.
  4. Accumulation of Heavy Metals (Cd, Pb, Ni and V) in *L. vannamei* Shrimp (*Litopenaeus Vannamei*) based on Size and Gender in Bushehr Shrimp Complexes, Supervisor, 2012-2013.
  5. Investigate on the effect of organic matter (TOM and TOC) on distribution pattern and diversity of benthic communities in Bushehr coastal, Supervisor, 2012-2013.
  6. Study on the efficacy and toxicity in the marine dispersants and their effects on wild and farmed shrimps, Supervisor, 2013-2014.
  7. Investigation on the corrosion and chemical deposition in drinking water distribution networks of Ahvaz, Supervisor, 2013-2014.
  8. The use of Chitosan for removal of heavy metals in fish tissue and stability of the fish meat during its refrigerated storage, Advisor, 2013-2014.
  9. Thermal effect Bushehr nuclear power plant outflow on water temperature and salinity of its influenced area, Advisor, 2013-2014.
  10. Determination of heavy metal (Pb, Cd & Hg) accumulation in *Nemipterus japonicus* (in Bushehr waters) and reveal health risks, Advisor, 2015.
  11. The quality control of shrimp tissue and food ration by using essential amino acids indicators, Supervisor, 2015-2016.
- and 5 other M. Sc thesis.

#### **Ph. D. student:**



1. Evaluation of ecological conditions of macrofoula communities and environmental conditions in mangrove forests of Nayband bay in the influence area of the South Pars Special Economic Energy Zone, Supervisor, 2012-2016.
2. Marine Biofoulings as Bioremediators: Possibility of Using *Amphibalanus reticulatus* and *Saccostrea cucullata* to Prevent Aquaculture-induced Coastal Eutrophication, Advisor, 2015-2016.
3. Study on the physical and chemical effects of shrimp hatchery effluents on coastal ecosystems, and some aquatic targets, Supervisor, 2014-2016.