

## CURRICULUM VITAE

### **PERSONAL DETAILS:**

- Full Name: Hossein Mohammadzadeh
- Date of birth: August 28, 1967
- Marital Status: Married
- Address:  
Dept. of Geology,  
Faculty of Science,  
Ferdowsi University of Mashhad,  
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### **EDUCATION:**

- PDF in Isotope Geochemistry, University of Ottawa, Canada (2007-2009).
- PhD in Earth Sciences (Water Resources and the Environment), University of Ottawa, Canada (2001-2007).
- Field Techniques in Hydrogeology, Waterloo University, Canada (2005).
- MSc in Hydrogeology, Shiraz University, Iran (1992-1995).
- BSc in Geology, Ferdowsi University of Mashhad, Iran (1987-1991).

### **CURRENT POSITION and PROFESSIONAL ACTIVITIES:**

- Associate Professor, Department of Geology, Ferdowsi University of Mashhad (2013-Present)
- Head of Groundwater Research Center (GRC), Ferdowsi University of Mashhad (2010-Present)
- Chair of the 1<sup>st</sup> National Conference on Application of Stable Isotopes (ASI2013) in Iran
- Assistant Professor, Department of Geology, Ferdowsi University of Mashhad (2009-2013)
- Lecturer of Department of Geology, Faculty of Science, Ferdowsi University of Mashhad (1994 – 2001)
- International Association of Hydrogeologists (IAH) 1996-Present.
- Iranian Association of Water Resources (IAWR) 1997-Present.
- Geological Society of Iran (GSI) 1997-Present.

### **AWARDS and SCHOLARSHIPS:**

- Postdoctoral Fellowship from University of Ottawa (2007–2009).
- Brian Rust Memorial Scholarship for the best student researcher from University of Ottawa (2005).
- Ottawa University Grant to attend Field Techniques in Hydrogeology, Waterloo University, Canada (2005).
- PhD. admission scholarship from Ministry of Science, Research and Technology of Iran (2001–2007).
- Teaching Achievement Award (Recognition of Excellence Lecturer), Ferdowsi Univ. of Mashhad (1999).
- Distinction M.Sc. Student, Dept. of Geology, Shiraz University (1994).
- M.Sc. admission scholarship from Ministry of Science, Research and Technology of Iran (1991–1994).
- Top B.Sc. Student and Distinction B.Sc. Student, Ferdowsi University of Mashhad (1991).
- B.A. admission scholarship from Ministry of Science, Research and Technology of Iran (1987–1991).
- Ferdowsi University of Mashhad, Ottawa University and UNESCO grants for attending to 10<sup>th</sup> Applied Isotope Geochemistry conference (in Hungary 2013), to International Goldschmidt conferences (in Italy, 2013; Montreal, 2012; Japan, 2003), Groundwater Quality conference (in Waterloo, Canada, 2004), to International workshop on the application of isotope techniques in hydrological and environmental studies (in Paris, France, 2004) and the second Environmental Science and Technology conference (in Houston, USA, 2006).

### **FIELD, LABORATORY and COMPUTER SKILLS:**

- Measuring field parameters (Eh, pH, EC, DO, and T) using appropriate meters and in-line flow-through cell.



- Measuring stable Oxygen/Hydrogen isotopes using CF-IRMS.
- Measuring concentrations and  $^{13}\text{C}$ -isotopic composition of DIC and DOC using a total inorganic/organic carbon analyzer (TCA) interfaced with a CF-IRMS.
- $\text{CH}_4$  concentrations and  $^{13}\text{C}$  isotope measurements of headspace gases using GC and CF-IRMS.
- Compound specific isotope analysis (CSIA) of carbon compounds using DAX-8 resin column separation, TCA and HPLC.
- Isotopic analysis of ammonium ( $\delta^{15}\text{N}$ ), nitrate ( $\delta^{18}\text{O}$  and  $\delta^{15}\text{N}$ ) and  $\text{N}_2$  ( $\delta^{15}\text{N}$ ) using “simultaneous distillation and titration method”, “denitrifier method”, “gas-diffusion samplers”, EA-IRMS.
- Microsoft Word, Excel, PowerPoint, Outlook, GIS, Dreamweaver, Windows.

### **TEACHING ACTIVITIES:**

- Teaching at Department of Geology, Faculty of Science, Ferdowsi University of Mashhad (2009 – Present)
  - UNDERGRADUATE COURSES: Groundwater Geochemistry, Hydrogeology, Hydrology and Physical Geology.
  - GRADUATE COURSES: Advanced Hydrogeology, Contamination of Water Resources, Tracers and Environmental Isotopes, Waste Materials and the Environments.
- Teaching Assistance at Department of Earth Sciences, University of Ottawa (2001 – 2007)
  - UNDERGRADUATE COURSES: Introduction to Hydrogeology (GEO 3342), Groundwater Geochemistry (GEO 4342), Geological Data Analysis (GEO 3152), Introduction to Earth Systems (GEO 1111),
  - Working as TA at Ottawa G.G. Hatch Isotopes laboratory.

### **SUPERVISION OF GRADUATE WORK:**

**MSc → Completed: 18, in progress: 6**

1. Davodi, F. (Jan. 2014). Determination of Quality Protection Area of Bojnourd aquifer using DRASTIC, AHP and Fuzzy-AHP Models, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
2. Ghaffarian Sayeli, A. (Jan. 2014). Simulation of groundwater level fluctuations using MODFLOW code and prediction of landsubside in Kashmar, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and G.R. Lashkaripour).
3. Shirnezhad, Z. (Feb. 2014). Factors Effecting on DIC and DOC Concentrations in Water Resources and their Isotopic Composition ( $^{13}\text{C}$ -DIC,  $^{13}\text{C}$ -DOC), unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
4. Shojaei. S.M. (Jan. 2014). Comparison of qualitative and quantitative characterization of Andarokh, Mazar & Cheshme Gilas springs (North and North West of Mashhad), unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
5. ParsaSadr, H. (Jan. 2014). Prediction of influences of constructing Sabzevar’s Roudab dam on downstream groundwater resources using MODFLOW code, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and H.R., Nassery).
6. Vaez Abaie, S.H. (Sep. 2013). Genesis and water quality of Garow springs water, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
7. Yasamani. S. (Feb. 2013). Evaluation of the effects of drought and groundwater discharge on Torbatjam-Fariman Aquifer, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and A. Mosaedi).
8. Khalgh\_e\_Zekrabad. Z. (Jan. 2013). Groundwaterflow simulationusingGMScodefor WaterResources Management (Study area: Torbat\_e\_Hydariye – zave aquifer), unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and H.R., Nassery).
9. Abdollahi Mansorkhani, M. (Nov. 2012). Mapping groundwater quality and quantity parameters of Shahrkord aquifer using Geostatistical methods, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).

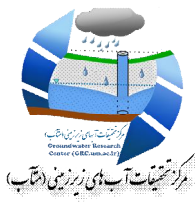
10. Afrooz, M. (Apr. 2012). Determination of the Farsan-Junghan aquifer quality protection using the DRASTIC model and comparison with AHP, FUZZY-AHP and SINTACS models based on nitrate concentration, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
11. Altafi Dadgar, M. (Jul. 2012). Prediction and the effect of exploitation development on the Bojnourd plain aquifer using GMS code, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and H.R., Nassery).
12. Azizi, F. (May 2012). Evaluation of aquifer vulnerability using GIS technique and DRASTIC model (Case study: Emamzadeh Jaafar-ghachsaran Aquifer), unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
13. Ebrahimpoor, S. (May 2012). Investigation the Hydrogeochemistry and Environmental Stable Isotopes ( $^{18}\text{O}$ ,  $^2\text{H}$ ) of Wetland Lake Zarivar – Marivan, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
14. Heydarizad, M. (Jul. 2012). Investigation on Hydrogeochemistry of Karde Dam's Lake water and its Hydraulic Connection with Downstream Groundwater Resources, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).
15. Khaledi, Z. (Sep. 2012). The Cr concentration in groundwater resources and its renal damages (proteinuria) in Birjand, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and M. Abedini).
16. Sayyad, H. (Sep. 2012). Groundwater Quantity and Quality Evaluation of Dargaz Plain, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and S. Velayati).
17. Seif, M. (May 2012). Evaluation of drought effects on Fasa groundwater resources in Fars Province, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisors H. Mohammadzadeh and A. Mosaedi).
18. Yousefi Sangani, K. (Sep. 2012). Evaluation of groundwater potential zones of Hezarmasjed Mountain - area of Kalate Naderi and Zangelanloo- using GIS/RS technologies, unpublished MSc thesis, Groundwater Research Center (GRC), Department of Geology, Ferdowsi University of Mashhad (Supervisor H. Mohammadzadeh).

**PhD → Completed: 1, in progress: 1**

1. Zarei, H. (Oct. 2012). Baseflow separation using isotopic techniques and hydrochemical tracers, karstic basin in semiarid regions, unpublished PhD dissertation, Department of Hydrology & Water Resources, Faculty of Water Sciences Engineering, Shahid Chamran University (co-sup with AkhondAli A.M.).

**SIGNIFICANT CONTRIBUTIONS TO RESEARCH:**

1. "Technical Concepts of Studying, Identifying and Organizing the Shared (Trasboundary) Aquifers (TBAs)", Water Resources Management Company, Ministry of Energy, Iran (2014).
2. "Source and Water Quality Investigation of Ayüb Peighambar Hot Spring by Hydrogeochemistry, Environmental Stable Isotopes, and Structural Geology Studies", Northern Khorasan Regional Water Company, Ministry of Energy, Iran (2014).
3. "Comparison of qualitative and quantitative characterization of Andarokh, Mazar & Cheshme Gilas springs (North and North West of Mashhad)", Razavi Khorasan Regional Water Company, Ministry of Energy, Iran (2014).
4. "Porewater and Gases (CH<sub>4</sub> and CO<sub>2</sub>) Analyses in DGR project", University of Ottawa, Canada (2007-2009). Principal investigator: Dr. I.D. Clark, Department of Earth Sciences, University of Ottawa.
5. "Evolution and degradation pathways of landfill leachate contamination using compound specific isotope analysis", University of Ottawa, Canada (2001-2007). PhD dissertation.
6. "Nitrogen analysis of Trail Road Landfill (TRL) site using environmental isotopes", (2005) Principal investigators: Dr. R. Aravena, Department of Earth Sciences. University of Waterloo and Department of Earth Sciences, University of Ottawa.
7. "Identification & evaluation of suitable sites for Mashhad waste disposal, A preliminary study", Ferdowsi University of Mashhad (1999). Co-researcher with M. Gafouri.



8. "Hydrogeological and hydrogeochemical studies of Baharieh plain, in Khorasan state, NE of Iran", Natural Resources and Livestock Research Center, Ministry of Agriculture (1996).
9. "Pumping test of wells and groundwater study of Bakan plain, in Fars State, SE of Iran", Ministry of Agriculture (1992).

### **BOOK PUBLICATIONS:**

- Author of the conference proceeding (the 1<sup>st</sup> Iranian Conference on Application of Stable Isotopes)
- Author of the "Guide to Writing and Presenting Thesis: Sciences & Engineering" book.

### **JOURNAL PUBLICATIONS: more than 14 Journal publication including following**

#### **In English**

1. **Mohammadzadeh, H.**, Altafi, M., & Nasser, H. (under review). "Prediction of the effect of water supplying from Shirindare dam on the Bojnourd aquifer using MODFLOW2000", Geopersia Journal.
2. Zarei, H., Akhondali, A.M., **Mohammadzadeh, H.**, Radmanesh, F., & Laudon H. (2014). "Runoff generation processes during the wet-up phase in a semi-arid basin in Iran", Hydrology and Earth System Sciences, doi:10.5194/HESD-11-3783-3810.
3. **Mohammadzadeh, H.**, Clark, I. (2011). "Bioattenuation in a groundwater impacted by landfill leachate traced with  $\delta^{13}\text{C}$ ", Ground Water, Vol. 49, Issue 6, pp. 880-890.
4. Mirnejad, H., Sisakht, V., **Mohammadzadeh, H.**, Amini, A.H., Rostron, B.J., & Haghparast, G. (2011). "Source history and economic evaluation of the Marun oil-field brines, SW Iran: Evidence from trace element contents and oxygen and hydrogen isotopic compositions", Geological Journal, Vol. 46, pp.1-9.
5. **Mohammadzadeh, H.** & Clark, I. (2008). "Degradation Pathways of Dissolved Carbon in Landfill Leachate traced with compound-specific  $^{13}\text{C}$  analysis of DOC", Journal of Isotopes in Environmental and Health Studies, Vol. 44, No. 3, pp 1-28.
6. **Mohammadzadeh, H.**, Clark, I., Marschner, M., & St-Jean, G. (2005). "Compound Specific Isotopic Analysis (CSIA) of Landfill Leachate DOC Components", Chemical Geology, Vol. 218, pp 3-13.

#### **In Persian**

7. **Mohammadzadeh, H.**, & Ebrahimpoor, S. (under review). "Evaluation of Dissolved Inorganic and Organic Carbon Concentrations (DIC, DOC) and Their Isotopic Composition ( $\delta^{13}\text{C}\text{-DOC}$ ,  $\delta^{13}\text{C}\text{-DIC}$ ) in Water Resources of Karde Catchment area (North of Mashhad)", Journal of Water and Wastewater.
8. Shojaei, S.M., & **Mohammadzadeh, H.** (under review). "Investigation of the origin and factors affecting on Andarokh, Mazar & Gilas karstic springs, (North of Mashhad) water quality using hydrogeochemical, PCA and isotopic ( $^{18}\text{O}$  &  $^2\text{H}$ ) methods", Journal of Water and Soil Conservation.
9. Afrooz, M., & **Mohammadzadeh, H.** (2013). "Evaluation of Brujen-Faradonbeh aquifer vulnerability using DRASTIC method and nitrate concentration", Iranian water research journal, No. 12, pp. 213-218.
10. Akhondali, A.M., Zarei, H., **Mohammadzadeh, H.**, & Radmanesh, F. (2013). "Baseflow separation using  $^{18}\text{O}$  Stable isotope in Abolabas karstic basin, Khozestan province", Journal of Irrigation Science and Engineering, Vol. 36, No. 2, pp. 109-120.
11. Dadgar, M.A., **Mohammadzadeh, H.**, & Bahrami R. (2012). Estimation of Bojnourd aquifer hydraulic parameters using Vertical Electrical Sounding (VES) data", Journal of Environmental Geology, Vol. 6, No. 20, pp. 75-85.
12. Azizi, F., & **Mohammadzadeh, H.** (2012). "Aquifer vulnerability zoning and spatially groundwater quality evaluation of Ghachsaran Emamzadeh Jaafar plain using DRASTIC model and GWQI index", Water Engineering Journal, No. 5, pp. 1-14.
13. **Mohammadzadeh, H.**, & Ebrahimpoor, S. (2012). "Application of Stable Isotope and Hydrogeochemistry to Investigate the Origin and Water Resources' Quality Variations in Zarivar Lake Catchment Area, Journal of Water and Soil, Vol. 26, No. 4, pp. 1018-1031.
14. Ebrahimpoor, S., & **Mohammadzadeh, H.** (2013). "Water quality assessment/zonation of Zarivar Lake using NSFQI, OWQI and CWQI indexes, Journal of Environmental Researches, Vol. 4, No. 7, pp. 137-146.



15. **Mohammadzadeh, H.**, & Heydarizad, M. (2011). "Hydrochemistry and stable isotopes ( $\delta^{18}\text{O}$  and  $\delta^2\text{H}$ ) studies of surface/ground water resources of Andarokh karstic area (NW of Mashhad)", Journal of Earth Sciences Researches, Vol. 2, No. 5, pp. 56-69.
16. Heydarizad, M., & **Mohammadzadeh, H.** (2012). "Investigation of seasonal and spatial variation of hydrochemical parameters in Karde River (North of Mashhad)", Journal of Water and Soil, Vol. 26, No. 5, pp. 1161-1170.
17. Khaledi, Z., & **Mohammadzadeh, H.** (2012). "The Cr concentration in Ophiolite units and groundwater resources in SE Birjand and its environmental contamination potential", Journal of Economic Geology, Vol. 2, No. 4, pp. 335-350.
18. Seif, M., **Mohammadzadeh, H.**, Mosaedi, A. (2012). "Evaluating the impacts of drought on groundwater resources in Fasa aquifer using SPI, GRI and SECI", Water Engineering Journal, No. 5, pp. 45-59.
19. **Mohammadzadeh, H.**, & Gohari Moghaddam, M., (2001). "Evaluation and Management of Groundwater Resources by Mathematical Models", Journal of Science, Ferdowsi University of Mashhad, Iran, Vol. 3, No. 2, pp. 59-72.
20. **Mohammadzadeh, H.**, (2000). "Groundwater of Baharieh – Kashmar plain", Journal of Sciences, Ferdowsi University of Mashhad, Iran.
21. Adabi, M.H., **Mohammadzadeh, H.**, (1997). "Study of origin and hydrogeology of Bazangan lake, in Eastern Kopet – Dagh Basin ", The International Journal of Research in Geography, No. 47, pp. 31-43.

#### **PRESENTED PAPERS in NATIONAL/ INTERNATIONAL CONFERENCES:**

1. **Mohammadzadeh, H.** & Zeraatkar, A.K. (2013). "The Geochemistry and Isotopic Composition of the Ayub-Peighambar Hot Spring, Bojnourd, NE Iran", AIG10, Budapest, Hungary, P. 246
2. **Mohammadzadeh, H.** (2013). "Comparing MSW landfill sites of Ottawa (capital of Canada) and Mashhad (the 2ed biggest city of Iran)", Goldschmidt2013, Florence, Italy, p. 1776.
3. **Mohammadzadeh, H.**, Heydarizad, M. (2012). "Investigating geochemistry and the stable isotope ( $\delta^{18}\text{O}$  &  $\delta^2\text{H}$ ) composition of Karde Carbonate lake water (NE Iran)", Goldschmidt2012, Montreal, Canada, p. 2123.
4. Ilin, D., **Mohammadzadeh, H.**, Poulain, A., & Clark I. (2012). "Biogenic methane and bacterial community structure in Ordovician shales, Michigan Basin, Ontario", Goldschmidt2012, Montreal, Canada, p. 1879.
5. **Mohammadzadeh, H.**, (May 2010). "The Meteoric Relationship for  $^{18}\text{O}$  and  $^2\text{H}$  in Precipitations and Isotopic Compositions of water resources in Mashhad Area (NE Iran)", 1<sup>st</sup> International Applied Geological Congress, Mashhad, Iran.
6. **Mohammadzadeh, H.**, (may, 2010). "Spatial Statistical Analysis of Groundwater using Geopack and ArcGIS", 1<sup>st</sup> International Applied Geological Congress, Mashhad, Iran.
7. **Mohammadzadeh, H.**, (October 2009). "Environmental Stable Isotope Measurements Techniques: Sampling, Sample preparation, Standards and Measurements tools" 1<sup>st</sup> Natinal Conference on Hydrogeology, Behbahan, Iran.
8. **Mohammadzadeh, H.**, (June 2009). "The quality and isotope geochemistry of the Garow saline water springs, Mashhad –Iran", Goldschmidt2009, Davos, Switzerland, p. A891.
9. **Mohammadzadeh, H.**, Clark, I. (May 2009). "Application of  $^{13}\text{C}$  isotope and carbon geochemistry to identify impact from landfill on surrounding groundwater", The 8th Internationa Congress of Civil Engineering, Shiraz, Iran.
10. **Mohammadzadeh, H.**, (September 2008). " $^{18}\text{O}$ ,  $^2\text{H}$  and  $^{13}\text{C}$  Isotopic Compositions of Water in Torogh and Kardeh Dams, Mashhad – NE Iran", Joint European Stable Isotope User Meeting, Giens Peninsula, France.
11. **Mohammadzadeh, H.**, Robin, M.J.L., Khanehbad M. (July 2008). "An investigation of the origin and the groundwater discharge to Bazangan Lake, Eastern Kopet-Dagh Basin-Iran, using geochemistry and stable isotopes", Goldschmidt2008, Vancouver, Canada, p. A641.
12. **Mohammadzadeh, H.**, Clark, I. (May 2008). "Assessment of dissolved organic carbon degradation in landfill leachate using hydrogen and carbon isotopes", The 2nd Conference and Exhibition on Environmental Engineering, Tehran, Iran, p.

13. **Mohammadzadeh, H.**, Clark, I. (Nov. 2007). "Characterization of CH<sub>4</sub> production pathways and estimating the rate of CH<sub>4</sub> production using stable isotopes", stable isotope tools for the assessment of chemical and microbial transformation reactions in complex natural and contaminated environment, Monte Verita, Switzerland, p. 46.
14. **Mohammadzadeh, H.**, Clark, I., Aravena, R., Bourbonnais, A., Lue, I., Middlestead, P. (Aug. 2006). "Isotopic Analysis of Ammonium ( $\delta^{15}\text{N}$ ), Nitrate ( $\delta^{18}\text{O}$  &  $\delta^{15}\text{N}$ ) and Dissolved Carbon ( $\delta^{13}\text{C}$ ) in Landfill Leachate Plum", 2ed International Conference on Environmental Science and Technology, Houston, Texas, USA, pp. 145-150.
15. **Mohammadzadeh, H.**, Clark, I., Middlestead, P. (Sep. 2004). "Carbon Geochemistry and Environmental Stable Isotopes of Landfill Leachate-Impacted Groundwater", 3<sup>ed</sup> Meeting of the France Stable Isotope Society (FSIS), UNESCO, Paris, France.
16. Clark, I., Marschner, M., **Mohammadzadeh, H.**, St-Jean, G., Middlestead, P. (July 2004). "Compound-specific  $\delta^{13}\text{C}$  analysis of DOC in groundwater by LC-TIC.TOC – continuous flow (IAEA-CN-104/P-139)", International Symposium on Isotope Hydrology and Integrated Water Resources Management, IAEA, Vienna, Austria.
17. **Mohammadzadeh, H.**, Clark, I., (Sep. 2004). "Evaluation of Groundwater pollution in Trail Road Landfill site, Canada, Using a Geochemical and Isotopic Approach", 8<sup>th</sup> Symposium of Geological Society of Iran, Shahrood, Iran.
18. **Mohammadzadeh, H.**, Clark, I., St-Jean, G., Middlestead, P. (July 2004). "Tracing Landfill Leachate Impacts on Groundwater Using DOC Geochemistry and d13C", 4<sup>th</sup> International Conference on Groundwater Quality, GQ-2004, Waterloo, Canada.
19. **Mohammadzadeh, H.**, Marshner, M., Clark, I., St-Jean, G., Middlestead, P. (Sep. 2003). "Compound-Specific Isotope Analysis of DOC in Landfill Leachate", 13<sup>ed</sup> annual Goldschmidt Conference, Kurashiki, Japan.
20. **Mohammadzadeh, H.**, Clark, I., St-Jean, G., Middlestead, P. (2003). "Trail Road Landfill Leachate Compound Specific Isotopic Analysis (CSIA) Using HPLC, TIC/TOC and IRMS", Graduate students conference, University of Ottawa, Ottawa, Canada.
21. **Mohammadzadeh, H.**, (2000). "Effects of natural factors on groundwater quality, Case study: Korbal, Birjand & Kashmar plains", 5<sup>th</sup> International Conference on Civil Engineering, Mashhad, Iran.
22. **Mohammadzadeh, H.**, Adabi, M.H., (2000). "Water balance and touristic attractions of the biggest natural lake of Khorasan state 'Bzangan' ", 5<sup>th</sup> International Conference on Civil Engineering, Mashhad, Iran.
23. **Mohammadzadeh, H.**, Sadeghi, A., (2000). "Study on Cr+6 and hydrochemistry of groundwater in Aliabad plain - Birjand"(Abstract), 7<sup>th</sup> Iranian Seminar of Pharmaceutical Sciences (ISPS), Mashhad, Iran.
24. **Mohammadzadeh, H.**, Kazemi, R., (1999). "Groundwater and hydrogeochemical studies of Shirvan and its role on development of the Shirvan city", Proceeding of the 3<sup>rd</sup> Symposium of the Geological Society of Iran, Shiraz, Iran, pp. 593 – 597.
25. **Mohammadzadeh, H.**, Zare, M., (1998). "Hydrogeological Techniques for identification of karstic and alluvial groundwater mixing: A case study of Rahmat anticline, Perspolice", The 2<sup>nd</sup> International Symposium on Karstic Water Resources, Tehran – Kermanshah, Iran.
26. **Mohammadzadeh, H.**, Amini, A., Ghafourian, R., (1998). "The role of geological and hydrogeochemical studies in Baharieh floodwater spreading project", Proceeding of the 2<sup>nd</sup> Symposium of the Geological Society of Iran, Mashhad, Iran, pp. 431 - 436.
27. **Mohammadzadeh, H.**, Ghohari Moghaddam, M., (1998). "Evaluation and management of groundwater resources by mathematical models", The First Conference on Optimization and its Applications, Mashhad, Iran.
28. **Mohammadzadeh, H.**, Ghafouri, M., (1998). "The role of groundwater in landslide", Proceeding of the 2<sup>nd</sup> Symposium on Landslide, Sanandaj, Iran, pp. 1 - 14.
29. **Mohammadzadeh, H.**, (1997). "Water quality and it's role in agricultural development", Proceeding of the First Symposium on Industrial Role in Agricultural Development, Isfahan, Iran, pp. 233 – 246.
30. Adabi, M.H., **Mohammadzadeh, H.**, (1997). "Study of origin and hydrogeology of Bazangan lake, in Eastern Kopet – Dagh Basin ", The International Journal of Research in Geography, no. 47, pp. 31-43.



31. **Mohammadzadeh, H.**, Ghafourian, R., (1997). "Importance of hydrogeological and hydrogeochemical studies in floodwater spreading projects", 8th International Conference on Rainwater Cathment System, Tehran, Iran, pp. 1523 - 1524.
32. **Mohammadzadeh, H.**, (1995). " Investigation on the causes of salinity in the Karstic springs of Rahmat mountain, Zagros, Iran" Proceeding of the 3<sup>rd</sup> Symposium on the Study of Water Resources, Tehran, Iran, pp. 430 – 452.
33. **Mohammadzadeh, H.**, (1994). "The harmful effects arising out of irregular extractoin of groundwater resources", Second Conference of Civil Engineering Students, Tehran, Iran.

#### **RESEARCH INTEREST:**

- Application of Geochemical Techniques and Stable Isotope in Environmental Geosciences
- Landfill Impacts Assessment using Geochemical Techniques and Stable Isotopes
- Evaluating Landfill Methane Production Rate Using Isotope Mass Balance
- Hydrogeology and Groundwater Contaminant Transport in Porous Media
- Microbial Activities for Remediation of Groundwater Contamination
- Application of GIS/GMS in Groundwater Hydrology
- Groundwater Hydrology in Semi-arid and arid zone
- Topics of Medical Geology related to contaminated water resources
- Geothermal Energy and the Application of Geochemical Techniques to Geothermal Studies

#### **LANGUAGES:** English, Persian, Torkish

#### **REFERENCES:**

- Dr. Ian Clark (my PhD thesis supervisor), full professor at University of Ottawa ( [iclark@uottawa.ca](mailto:iclark@uottawa.ca))
- Gilles St-Jean, Research Scientist, University of Ottawa ([gstjean@uOttawa.ca](mailto:gstjean@uOttawa.ca))
- Dr. Michel Robin, Associate professor at University of Ottawa ( [mrobin@uottawa.ca](mailto:mrobin@uottawa.ca))
- Dr. Ramon Aravena, Research professor at University of Waterloo ([roaravena@science.uwaterloo.ca](mailto:roaravena@science.uwaterloo.ca))
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