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**Prof., Faculty of Eng., Bu-Ali Sina University, Hamedan, Iran.**

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**Areas of Interest**

- ☐ *Geo-Environmental & Geotechnical Engineering*
- ☐ *Impact of Heat Treatment on Material (Soil/Stabilization/Solidification/Cement) Behaviour*
- ☐ *Soil-Contaminant Interaction*
- ☐ *Solidification of Contaminated Soils*
- ☐ *Soil Stabilization-Soil Mechanics*
- ☐ *Consolidation and Settlement of Clayey Soils*
- ☐ *Microstructural Behaviour of Soils*

**Education:**

1993-1997, **McGill University, Canada**, Geo-Environmental Eng., PhD

*Thesis: The Role of Marl Components and Ettringite on the Stability of Stabilized Marl.*

1989-1992, **University of Tehran, Iran**, Geotechnical Eng., Master

1984-1988, **University of Tehran, Iran**, Civil Eng., Bachelor

**Professional Association:**

Iranian Geotechnical Society, Iran, 2002-2023

Member of American Society of Civil Engineers, 2009-2011

Iranian Society for Rock Mechanics, IRSRM (National Group of ISRM), 2000-2023

Society of Clay Mineralogy, Iran, 1997-2023

British Geotechnical Society, UK, 1997-2002

Canadian Geotechnical Society, 1999-2003

Iranian Statistical Society, 2000-2023

**Work Experience:**

Assistant Prof.: 1997-2003; Associate Prof.: 2003-2006; Prof.: 2006 –onward

- 1- Date 2010-2023, Institution:** University of Tehran, Iran. School of Civil Engineering, Adjunct Prof.
- 2- Date: 1997-2023, Institution:** Bu-Ali Sina University, Iran, **Nature of Work:** Head of Geo-Environmental Research Centre of Faculty of Eng. of Bu-Ali Sina University
- 3- Date: 2001-2004, Institution:** Bu-Ali Sina University, Iran, **Nature of Work:** Geotechnical Study of Ghaleh Project, Geo-Environmental Study of Waste Disposal Site of Hamedan, Geotechnical Study of Azad University Building Project. Geotechnical Study of Toysircun Dam, Consolidation Settlement Evaluation of North Sector of Hamedan Province.
- 4- Date: 2001, Institution:** Bu-Ali Sina University, Iran, **Position held:** Director of the Research Laboratory of Geo-Environmental Engineering and Soil Mechanics.
- 5- Date: 1999-2001, Institution:** Bu-Ali Sina University, Iran, **Position held:** Director of Post-Graduate Studies of Bu-Ali Sina University. Director of International Office of University.

- 6- **Date:** 1994 -1997, **Institution:** McGill University, CANADA, Geotechnical Research Centre (GRC), **Nature of Work:** Interpretation of XRD analysis of soil samples for different geo-environmental projects. Physico-chemical analysis of soil behaviour, **Supervisor:** Prof. R.N. Yong, **Some Project Titles:** (a) Physico-Chemical and Geotechnical Study of Jakarta Landfill Project. (b) Oil Movement in Clay Soils without Gravity Effects. (c) Mineralogy and Geotechnical Characteristics of Pakistan Fine-Grained Soil. (d) Identification of Clay Soils by XRD Analysis.

### ***Award and Keynote Speaker at Conferences:***

- 1-Distinguished Researcher of Civil Engineering Department of Bu-Ali Sina University, Iran, Nov., 2022.
- 2-**Keynote Speaker**, 5<sup>th</sup> National and 1<sup>st</sup> International Conference on Cement Industry and Oncoming Horizon, Tehran/Iran, 10-11 November, 2019.
- 3-**Keynote Speaker** of National Conference on Geotechnical Engineering, November 2018, University of Tehran, Tehran, Iran.
- 4-**Keynote Speaker** of the 2<sup>nd</sup> Iranian Conference on Geotechnical Engineering, 2014. Geo-environmental Engineering, Challenges and New Horizons. Razi University, Kermanshah, Iran.
- 5- **Keynote Paper**, Yong, R.N., Ouhadi, V.R., 1997, "Reaction Factors Impacting on Instability of Bases on Natural and Lime-Stabilized Marls", Special Lecture, Keynote Paper, Proceeding of the International Conference on Foundation Failures, Singapore, Edited by T.W. Hulme and Y.S. Lau, pp. 87-97
- 6-Highest Research Grade of Engineering Faculty of Bu-Ali Sina University for the year 2013.
- 7-Distinguished Researcher, Award by Ministry of Ministry of Science, Research, and Technology, of Iran. 2010.
- 8-Distinguished Researcher, Award by Ministry of Ministry of Science, Research, and Technology, of Iran. 2008.
- 9-Highest Research Grade of Engineering Faculty of Bu-Ali Sina University for the year 2002-2008, Hamedan, Iran.
- 10-ISESCO and UNESCO Support to Attend the International Workshop on Geological Parameters for Environmental Protection, Sultan Qaboos University, Oman, 10-15-May 2003.
- 11-Highest Research Grade of Engineering Faculty of Bu-Ali Sina University for the year 2000-2001, April 2001, Hamedan, Iran.
- 12-Distinguished Researcher of Province of Hamedan, Iran, December 2000.
- 13-Scholarship for Graduate Studies from Ministry of Science, Research, and Technology, of Iran, 1993-1997.

### ***Research Projects:***

- Ouhadi, V.R.** 2023-Geotechnical Investigation on the Settlement Behaviour of Sahab-Gharanieh Palace of Niavaran Cultural and Historical Complex.
- Ouhadi, V.R.** 2022-Collapsible Soil Behaviour in the Site of Mofateh Power Plan, Hamedan, Iran
- Ouhadi, V.R.** 2021- Soil Characteristics Determination and Geotechnical Properties Improvement of Maskan Melli Site, Hamedan, Iran.
- Ouhadi, V.R.** 2020- Evaluation of the Settlement in the Area of Masjed Jameh of Hamedan, Hamedan, Iran.
- Ouhadi, V.R.** 2020- Geotechnical Study of Asr Talaie Egmataneh Hyper Centre Site, Hamedan, Iran.
- Ouhadi, V.R.** 2019- Geotechnical and Geophysics Study of Ghasem Abad Tourism Centre, Hamedan
- Ouhadi, V.R.** 2019- Stability Evaluation and Geotechnical Investigation of Site of Hegmataneh Museum of Hamedan
- Ouhadi, V.R.** 2018- Geotechnical and Geophysical Investigation of Jame Mosque of Hamedan
- Ouhadi, V. R.** 2008-2010, Different Aspects of Excavations and Closures of Unauthorized Wells, Proposed Methods for Improvement, Research Project for Management Department of Water Resources of Hamedan Province.
- Ouhadi, V.R.,** 2006-2010 Impact of Carbonate and Heavy Metal Contaminants on the Microstructure of Clayey Soils, University Research Project.
- Ouhadi, V. R.,** 2003-2006, University Research Project, Effect of Microstructural of Clayey Soils of Landfills on their Adsorption Characteristics and Contaminant Retention.
- Ouhadi, V. R.,** 2003-2006, National Research Project, Article 102 "Study the Possibility of Subsidence at the Shahid Mofateh Power Plant and its Impact on the Structures Located in this Area and Proposing the Improvement Methods".
- Ouhadi, V. R.,** and Heidari, M., 2003-2005, National Research Project, "Evaluation of Collapsible Phenomenon Happened in the North Sector of Hamedan"
- Ouhadi, V.R.,** Kosha, B., 2003-2004, Between University Research Project, "The Main Criteria for the Selectivity of Landfill's Sites with an Specific Attention to the Effect of Soil-Contaminant Interaction on the Settlement Behaviour of Hamedan and Esfahan Landfills".

- Ouhadi, V.R.** and Shariatmadari, N., 2003-2004, Between University Research Projects, "The Ability of Electro Osmosis Method in Laboratory and Site Scales for Site Remediation of Waste Disposal Site of Hamedan".
- Ouhadi, V. R.**, 2001-2002, National Research Project, "The Soil Classification of Hamedan City from Civil Engineering Aspects"
- Ouhadi, V.R.**, 2000-2001, University Research Project, "The Process of Adsorption and Transformation of Contaminant in Marly Soils and the Role of Kaolinite Minerals on the Soil-Contaminant Interaction".

### ***Patent:***

- 1-**Ouhadi, V.R.**, and Sedighi, 2003. Special mold for preparation of artificial-undisturbed consolidated samples from soil slurries. Registered and Issued by the Iranian Centre for Industrial Rights.
- 2-**Ouhadi, V.R.**, and Goodarzi, 2004, A proposed instrumentation for three-dimensional evaluation of dispersivity of soils. Registered and Issued by the Iranian Centre for Industrial Rights.
- 3-**Ouhadi, V.R.**, Mohajery, P., and Amiri, M. 2013, A Proposed Method for the use of Silicate-Coating Polymeric Nanocapsules for Contaminant Adsorption. Registered and Issued by the Iranian Centre for Industrial Rights.
- 4- **Ouhadi, V.R.**, and Amiri, M., 2014. A proposed method for production of nano montmorillonite from bentonite with centrifuge method. Registered and Issued by the Iranian Centre for Industrial Rights.
- 5-**Ouhadi, V.R.**, and Aghaei, Z., 2017. The production of pre-hydrated bentonite for increasing organic contaminant adsorption, Registered and Issued by the Iranian Centre for Industrial Rights.

### ***Journal Papers, Indexed by ISI and Scopus***

- 1-**Ouhadi, V.R.** and Yong, R.N., 2003, "The Role of Clay Fractions of Marly Soils on their Post Stabilization Failure", Elsevier Journal of Engineering Geology, Vol. 70, Issue 3-4, pp. 365-375.
- 2-**Ouhadi, V.R.**, and Yong, R.N., 2003, "Impact of Clay Microstructure and Mass Absorption Coefficient on the Quantitative Mineral Evaluation by XRD Analysis, The Elsevier Applied Clay Science Journal, Vol. 23, Issue 1-4, pp. 141-148.
- 3-**Ouhadi, V.R.**, Yong, R. N., and Sedighi, M., 2006, "Influence of Heavy Metal Contaminants at Variable pH Regimes on Rheological Behaviour of Bentonite", Applied Clay Science Journal, Vol. 32, Issues 3-4, pp. 217-231. **(Considered as HOT paper by Elsevier).**
- 4-**Ouhadi, V.R.**, Yong, R. N., and Sedighi, M., 2006, "Desorption Response and Degradation of Buffering Capability of Bentonite, Subjected to Heavy Metal Contaminants", Engineering Geology Journal, Vol. 85, Issues 1-2, pp. 102-110.
- 5-**Ouhadi, V.R.** and Goodarzi, A.R., 2006, "Assessment of the Stability of a Dispersive Soil Treated by Alum", Engineering Geology Journal, Vol. 85, Issues 1-2, pp. 91-101.
- 6-**Ouhadi, V.R.**, Yong, R.N., Bayesteh, H., and Goodarzi, H., 2007, "Influence of Potential Determining Ions on the Microstructural Performance and Contaminant Adsorption of a Homoionic Illitic Clay", Springer Water, Air, and Soil Pollution Journal, Vol. 181-, No. 1-4, May, pp. 77-93.
- 7-Yong R.N., and **Ouhadi, V.R.**, 2007, "Experimental Study on Instability of Bases on Natural and Lime/Cement-Stabilized Clayey Soils", Applied Clay Science Journal, Vol. 35, Issue 3-4, pp. 238-249. **(Considered as HOT paper by Elsevier).**
- 8-**Ouhadi, V.R.** and Goodarzi, A.R., 2007, "Factors Impacting the Electro-Conductivity Variations of Clayey Soils". Iranian Journal of Science and Technology, Vol. 31, No. B2, pp. 109-121.
- 9-**Ouhadi, V.R.**, Yong, R. N., 2008, "Ettringite formation and behaviour in clayey soils", Applied Clay Science, Vol. 42, pp. 258-265.
- 10- Yong, R.N., **Ouhadi, V.R.**, and Goodarzi, A.R., 2009, "Effect of Cu<sup>2+</sup> Ions and Buffering capacity on Smectite Microstructure and Performance", Journal of Geotechnical and Geo-Environmental Engineering, ASCE, Vol. 135., No. 12, pp. 1981-1985.

11- **Ouhadi, V.R.**, Yong, R. N., Shariatmadari, N. and Saeidijam, S., 2010, "Impact of Carbonate on the Efficiency of Heavy Metal Removal from Kaolinite Soil by the Electrokinetic Soil Remediation Method", *Journal of Hazardous Materials*, Vol. 173, pp. 87-94.

12-**Ouhadi, V.R.**, Yong, R.N., Shariatmadari, N., Saeidijam, S., Goodarzi, A.R., and Safari-Zanjani, M., 2010, Impact of carbonate on the efficiency of heavy metal removal from kaolinite soil by the electrokinetics soil remediation method, *Journal of Hazardous Materials*, Vol. 173, pp. 87-94.

13- **Ouhadi, V.R.**, Yong, R.N., Goodarzi, A.R., and Safari-Zanjani, M., 2010, Effect of temperature on the re-structuring of the microstructure and geo-environmental behaviour of smectite, *Applied Clay Science*, Vol. 47, pp.2-9.

14-**Ouhadi, V.R.**, Yong R.N., Rafiee, F., and Goodarzi, A.R., 2011. Impact of carbonate and heavy metals on micro-structural variations of clayey soils, *Applied Clay Science*, Vol. 52, pp. 228-234.

15-**Ouhadi, V.R.**, Bayesteh, H., and Pasdarpour, M., 2012. Analysis of Dispersivity Behaviour of Clay Minerals by Fuzzy Computational System and Experimental Methods, *Journal of Dispersion Science and Technology*. Vol. 33. pp. 420-428.

16- **Ouhadi, V.R.**, Yong, R.N., Amiri, M., and Ouhadi, M.H., 2014. Pozzolanic Consolidation of Soft Clays, *Applied Clay Science*, Vol. 95, pp. 111-118.

17-**Ouhadi, V.R.**, Choobchian, S.I. 2020, Geo-environmental and Micro-structural Behaviour of Calcareous Bentonite, Paper Submitted to the ASCE Journal.

18-**Ouhadi, V.R.**, Yong, R.N., Hejazifar, H., and Bahadorinezhad, O., 2020, Effect of temperature on buffering capacity of carbonated and decarbonated kaolinite in the absence and presence of heavy metal contaminants, *Environmental Engineering and Management Journal*. Vol. 19, No. 6, pp-1067-1077.

19-**Ouhadi, V.R.**, Yong, R.N., Deiranlou, M., 2021, Enhancement of Cement Based Solidification/Stabilization of a Lead-Contaminated Smectite Clay. *Journal of Hazardous Materials*, 403-123969.

20- **Ouhadi, V.R.**, Yong, R.N., Zareie, T., and Arefikhah, E., 2022, Role of polyacrylamide polymer in retention of Pb contaminants in smectite. *Bulletin of Engineering Geology and the Environment*, Springer, Issue 10, 81(404).

21- **Ouhadi, V.R.**, Mortazavi, A.H., 2023. Impact of Change in the Layers Order of Clay and Sand at Different Densities on the Collapse Index of Soil. Paper Under Submission to the *Journal of Construction and Building Materials* (Elsevier).

22- **Ouhadi, V. R.**, Yong, R. N., Lotfi, S., 2023. Impact of Heat Treatment on the Role of Different Phases of Contaminant Retention by Smectite. Paper Under Submission to the *Bulletin of Engineering Geology and the Environment*, Springer

23- **Ouhadi, V.R.**, Yong, R.N., Omid Naeeni, S.T., and Matin-Rouhani. H., 2023, Structural Changes in Bentonite Due to Interaction with Organic Contaminants and Freeze-Thaw Cycles, Paper Submitted for Publication in *Water and Environment Journal - Wiley Online Library*.

### ***Journal Papers, Indexed by Google Scholar***

1-**Ouhadi, V.R.**, 2000, The Soil Erosion Control with the Aim of an Agricultural Development, *Agriculture Economic Journal*, V. 8, No. 2(30), Sept., pp. 283-294.

2-**Ouhadi, V.R.** and Ghalandarzadeh, A., 2002, A Numerical Study of Deep Foundations under Lateral Loads, *Pakistan Journal of Applied Sciences*, Vol. 2, Number 2, pp.273-276.

3-**Ouhadi, V.R.**, 2002, Study of Transformation of Clay Minerals in the Interaction Process with Additives by use of Scanning Electron Microscope and XRD and its Relation to Mechanical Behaviour, *Iranian Journal of Crystallography and Mineralogy*, Vol. 10, No. 1, pp. 87-97.

- 4- **Ouhadi, V.R.**, and Goodarzi, A.R., 2004, The Effect of Variations of Pore Fluid Properties on the Physical and Micro-Structural Characteristics of Bentonite, Iranian Journal of Crystallography and Mineralogy, Vol. 12, No. 1, pp. 52-64.
- 5-**Ouhadi, V.R.**, and Saeidijam, S., N. Shariatmadari, 2005, Effect of Carbonate on the Removal of Heavy Metals from Kaolinite Soil by the Use of Electrokinetics Remediation Method, Amirkabir Journal of Science and Technology, Vol. 63, pp. 19-29.
- 6-**Ouhadi, V.R.**, and Saeidijam, S., 2006, Micro-Structural and Geo-Environmental Influence of Carbonate Minerals on the Heavy Metal Attenuation of Kaolinite, Engineering Journal of Tabriz University, Vol. 33, No. 3, pp. 1-10.
- 7-**Ouhadi, V.R.**, and Shafiei, H., 2006, Study of different sample preparation methods for SEM micrographs from heavy metal-contaminated illite and kaolinite, Iranian Journal of Crystallography and Mineralogy, No. 2, pp. 305-324.
- 8-**Ouhadi, V.R.** and Goodarzi, A.R., 2007, Dispersive Behaviour of Bentonite from Micro-Structural and Macro-Structural Point of Views, Modares Technical and Engineering Scientific Research Journal, Vol. 29, Fall, pp. 51-60.
- 9-**Ouhadi, V.R.** and Haghayegh, A., and Bayesteh, H., 2008, Effect of Heavy Metal Contaminants on the Performance of Sand –Bentonite (SEB) in Engineering Waste Disposal Sites, Modares Technical and Engineering Scientific Research Journal, No. 33, pp. 71-82.
- 10-**Ouhadi, V.R.**, and Goodarzi, A.R., 2007, Impact of Solubility of Carbonate or Sulfate Salts and Collapsible Potential on the Enhancement of Formation of Sink-holes, Engineering Journal of Tabriz University, Vol. 34, No. 3, pp. 1-10.
- 11- Shariatmadari, N, Saeidijam, S., and **Ouhadi, V.R.**, 2008, "Impact of Carbonate on the Efficiency of Electrokinetics Method for Zinc Removal from Clayey Soils, a Pilot Scale", Modares Technical and Engineering Scientific Research Journal, No. 33, pp. 45-59.
- 12-**Ouhadi, V.R.**, and Rafiee, F., 2009, "Impact of Heavy Metal Contaminants of Lead and Zinc on the Physical and Microstructure of Kaolinite", Iranian Journal of Crystallography and Mineralogy, Vol. 17, No. 1, pp. 55-64.
- 13- **Ouhadi, V.R.**, and Choobchian, S.I., 2010. Geo-environmental Behaviour of Treated Montmorillonite with Cations in Retention of Pb, Modares Civil Engineering Journal, Vol. 10, No. 2, Summer 2010, pp.17-26,
- 14-**Ouhadi, V.R.**, and Amiri, M., 2011. Geo-environmental behaviour of nano clays in interaction with heavy metal contaminants. Amirkabir Journal of Civil Engineering, Vol. 42, No. 3, pp. 29-36.
- 15- **Ouhadi, V.R.**, and Choobchian, S.I., 2011, Influence of cation valence and concentration on the results of X-ray analysis for smectite clay mineral, Iranian Journal of Crystallography and Mineralogy, Vol. 19, No. 2, pp-271-280.
- 16- **Ouhadi, V.R.**, Omid, A.H., Goodarzi, A.R., 2012. Application of EDTA for Remediation of Pb Contaminated Bentonite by the Use of Soil Washing Method, Modares Technical and Engineering Scientific Research Journal, Vol 12, No. 2, pp. 1-9.
- 17-**Ouhadi, V.R.**, and Amiri, M., and Goodarzi, A.R., 2012. The Special Potential of Nano-Clays for Heavy Metal Contaminant Retention in Geo-Environmental Projects, Civil Engineering Infrastructural Journal, CEIJ, University of Tehran, Vol. 45, No. 6, pp. 631-642. (THE SECOND MOST VISIED PEPAER OF JOURNAL ACCORDING TO THE JOURNAL HOME PAGE ANNOUNCEMENT).
- 18-**Ouhadi, V.R.**, and Amiri, M., 2013, Segregation of bentonite components in order to achieve nano montmorillonite, Iranian Journal of Crystallography and Mineralogy, Vol. 20, No. 4, pp. 677-684.
- 19- **Ouhadi, V.R.**, Pourzafarani, M., 2014, Influence of temperature on the Unconfined Compression Strength and Water Absorption of Sand-Bentonite Mixture in the Presence of Carbonate, Modares Journal, Vol. 14, No. 1, pp. 147-157.

20- **Ouhadi, V.R.**, Amiri, M., and Hamidi, S., 2014. Dispersive Soil Improvement with Lime, Special Attention to the Rate of Peak Solubility of Clay Minerals in XRD, a Case Study of Dispersive Soil of Qazvin, *Modares Civil Engineering Journal*, Vol. 14, No. 2, pp. 13-26.

21-**Ouhadi, V.R.**, and Safari-Zanjani, 2013. Buffering Capacity Variations in Calcareous Soils and the Use of EDTA for Remediation of Pb-Contaminated Calcareous Kaolinite, *Sharif Journal of Civil Engineering*, Issue 30.2, No. 1.2, pp. 3-11.

22-**Ouhadi, V.R.**, and. Noori, A., 2013, Impact of Nano-Clay on Consolidation and Permeability Behaviour of Bentonite in the Presence of Heavy Metal Contaminant. *Modares Civil Engineering Journal*, Vol. 13, No. 4, pp. 1-10.

23- **Ouhadi, V.R.**, Ahooghalandari, B., 2013, Stable Microstructure of Marly Soils in Interaction with Heavy Metal Contaminants and the Process of Contaminant Retention by Palygorskite Clay Mineral, Paper Submitted to *Iranian Journal of Crystallography and Mineralogy*.

24- **Ouhadi, V.R.**, Bahadori Nezhad, O. R., and Amiri, M., 2014. Lead Retention of Carbonated Kaolinite in the Adsorption and Electrokinetics Processes. *Modares Civil Engineering Journal*, No. 14, Vol. 3, pp. 17-30.

25- **Ouhadi, V.R.**, Pourzafarani, M., 2014. Characteristics change of Kaolinite and Bentonite Due to the Heat Treatment from Micro-Structural Aspects, *Sharif Journal of Civil Engineering*, Issue 30.2, No. 4.2, pp. 65-72.

26-**Ouhadi, V. R.**, Amiri, M., and Hamidi, S., 2014. Dispersive Soil Improvement with Lime, Special Attention to the Reduction of Peak Intensity of Clay Minerals in XRD Analysis. *Modares Civil Engineering Journal*, Vol. 14, No. 2, pp. 13-22.

27-**Ouhadi, V. R.**, and Amiri, M., 2014, Interaction of Nano-Clays and Cu contaminant in Geo-Environmental Projects, *Journal of Environmental Science and Technology*, Vol. 16, Issue 1, pp. 78-87. (THE SECOND MOST VISIED PEPAER OF JOURNAL ACCORDING TO THE JOURNAL HOME PAGE ANNOUNCEMENT).

28-**Ouhadi, V.R.**, Amiri, M., and Ouhadi, M.H., 2015. Micro-Structural Evaluation of Heavy Metal Retention in Stabilization and Solidification with Bentonite and Cement. *Journal of Engineering Geology*, Kharazmi University, Vol. 6, No. 1, pp. 2575-2592.

29-**Ouhadi, V.R.**, and Goodarzi, A.R., 2014, Effect of Pore Fluid Properties and Increase of Temperature on the Geotechnical and Geo-Environmental Parameters of Smectite, *Journal of Civil and Environmental Engineering*, University of Tabriz, Vol. 44, Issue, 3, pp. 17-25.

30-**Ouhadi, V.R.**, Hamidi, S., and Amiri, M., 2016. Impact of Heavy Metal Contaminants on Coefficient of Variations of Compression Index, Expansion index and Permeability Coefficient of Bentonite from Micro-Structural Point of View, *Journal of Civil and Environmental Engineering*, University of Tabriz, Vol. 45, No. 4, pp. 7-17.

31-**Ouhadi, V.R.**, and Hamidi, S., 2016. Influence of Properties of Pore-Fluid Rich in Heavy Metal on Error Associated with Consolidation and Atterberg Limits Experiments, *Sharif Journal of Civil Engineering*. Issue 32.2, No. 3.2, pp. 33-42

32-**Ouhadi, V.R.**, Amiri, M., and Zangene, M, 2016. Microstructural Assessment of Lime Consumption Rate and Pozzolanic Reaction Progress of a Lime-Stabilized Dispersive Soil, *Modares Civil Engineering Journal*, Vol. 16, No. 1, pp-11-22.

33-**Ouhadi, V.R.**, Safari-Zanjani, M., 2016. Buffering Capacity Variations in Calcareous Soils and the Use of EDTA for Remediation of Pb-Contaminated Calcareous Kaolinite. Paper Submitted to the *Amirkabir Journal of Science and Technology*.

34- **Ouhadi, V.R.**, Amiri. M., and Bagher, H., 2017., Microstructural Evaluation of Progress of Lime Pozzolanic Reactions in Stabilization and Solidification of Zn Contaminant, *Journal of Environmental Science and Technology*, Vol. 18, No. 1, pp. 93-106.

35- **Ouhadi, V.R.**, Fakhimjoo, Omid Naeeni, S.T., 2017. The Comparison of Plastic and Permeability Behavior of Bentonite in the Presence of Organic and Heavy Metal Contaminants. *Journal of Civil and Environmental Engineering*, (Published by Tabriz University), Vol. 46, No. 85, Issue 4, pp. 25-36.

36- **Ouhadi, V.R.**, and Choobchian, S.I, 2016, Impact of the Type and Concentration of Double Layer Cation on the Retention of Pb Ions by Montmorillonite, Paper Accepted for Publication by Modares Technical and Engineering Scientific Research Journal.

37-**Ouhadi, V.R.**, Amiri, M., and Deiranlou, M., 2017. Morphological and Microstructural Study of Heavy Metal Contaminant Retention in Dispersive Soils. Journal of Environmental Science and Technology, Vol. 19, No. 4, pp. 101-113.

38-**Ouhadi, V.R.**, and Bahadori Nezhad, O. ., 2017. Impact of Carbonate and Carbonate Elimination on the Efficiency of Pb Removal from Carbonated Kaolinite in Electrokinetics Process with Special Attention to the XRD Analysis. Paper Submitted to Journal of Civil and Environmental Engineering, University of Tabriz.

39-**Ouhadi, V.R.**, and Deiranlou, M., 2017. Development and Validation of the Modified Barium Chloride Method for CEC Measurement and Determination of Accurate Exchangeable Calcium Cation Concentration in Carbonated Clayey Soils, Modares Civil Engineering Journal, Vol. 17, No. 3, pp. 21-34.

40- **Ouhadi, V.R.**, Mohajeri, P., an Amiri, M., 2018. Solidification of Heavy Metal Contaminant by the Use of Silicate-Coating Polymeric Nano-capsules. Journal of Civil and Environmental Engineering, (Published by Tabriz University), Vol. 48, No. 92, Issue 3, pp.1-11.

41-**Ouhadi, V.R.**, and Amiri, M., 2018. Using Tailings of NanoClay Production Process in Environmental Geotechnique Projects to Retain Heavy Metal Contaminants, Modares Civil Engineering Journal, Vol. 17, No. 6. pp. 17-28.

42- Amiri, M., and **Ouhadi, V. R.**, 2018. Evaluation of Micro and Nano-Structure of Cement Hydration Process in Solidification and Stabilization of Zn Heavy Metal Contaminant at the Presence of Clayey Soil, Modares Civil Engineering Journal, Vol. 18, No. 1. pp. 1-15.

43-**Ouhadi, V.R.**, and Deiranlou, M., and Rasouli, P., 2019. Evaluation of Interaction Process of Fly Ash and Clayey Soils with High Plasticity Index from Micro-Structural Point of View. Journal of Civil and Environmental Engineering, (Tabriz University). Issue 49.4, Vol. 97, pp. 1-14.

44-**Ouhadi, V.R.**, Mohamadi, A., 2019. Impact of Enhancement with Calcium Chloride Solution on the Electrolysis and Electro-Osmosis Mechanisms of Clayey Solis in Electrokinetics Process. Paper Submitted to the Modares Civil Engineering Journal.

45- **Ouhadi, V.R.**, and Amiri, M., 2019. Microstructural Study and Permeability Variations of Clayey Soils at the Presence of Phosphate Fertilizers. Paper Accepted for Publication at Modares Civil Engineering Journal.

46- **Ouhadi, V.R.** and Shahriari, E., 2019. Effect of bentonite initial pH on selectivity of heavy metals in single and composite systems. Paper accepted for Publication by Modares Civil Engineering Journal.

47- **Ouhadi, V.R.**; Aghaei, Z. and Behnia, C. 2020. Influence of Initial Hydration of Bentonite on Its Plasticity Properties Changes in Interaction with Organic Contaminant. Paper Accepted for Publication in Journal of Environmental Science and Technology., Vol. 22, Issue 3, pp. 1-12.

48-**Ouhadi, V.R.**, and Bahadorinezhad, O.R., 2020. mpact of Carbonate and Carbonate Elimination on the Efficiency of Pb Removal from Carbonated Kaolinite in Electrokinetics Process with Special Attention to the XRD Analysis. Journal of Civil and Environmental Engineering, Issue 50.2, Vol. 99, pp. 1-11.

49- Amiri, M. and **Ouhadi, V.R.**, 2020. Microstructural Evaluation of Stabilization and Solidification of Heavy Metals by Cement at the Presence of Nano Montmorillonite. Amirkabir Journal of Civil Engineering, Vol. 52, No. 1, pp. 107-122.

50-**Ouhadi, V.R.**, Qarelou, Z., and Naderi, F., 2021, Impact of pH Variations of Kaolinite upon Some of its Geotechnical and Geo-Environmental Properties, Journal of Civil and Environmental Engineering, (Published by Tabriz University), No. 104, 51.3, pp-11-17.

51-**Ouhadi, V.R.**, and Deiranlou, M. 2021. Impact of fly ash on the process of cement based solidification of heavy metal contaminated bentonite. Journal of Civil Engineering of Sharif University. Vol. 37-2, No. 1, pp. 85-94.

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## **Academic Experiences:**

### **Referee for Journal Articles Submitted to:**

- 1-Elsevier Journal of Engineering Geology
- 2-Elsevier Journal of Hazardous Materials
- 3-Engineering Journal of Tabriz University
- 4-Engineerig Journal of Mazandaran University
- 5-Science Journal of Tarbiat Moalem University
- 6-Appiled Clay Science

## **Director of Dissertations**

### **MSc. Supervisor:**

1-The Effect of Soil Composition on the Efficiency of Electro-Kinetic Remediation of Soils. S. Saeidijam, 2004.

2-Impactof Adsorption Characteristics and Pore Fluid Properties of Kaolinite, Illite, and Marl on the Electro-Conductivity Variations of Soil-Water-Contaminant System. H. Shafiee, 2004.

3-Enhancement of Electrokinetics Remediation of Contaminated Kaolinite. M.R. Shahbaz. Winter 2005.

4- Osmosis Consolidation Properties of Kaolinite Due to Interaction with Heavy Metal Contaminants, Rafiee, F., 2007.

5- Effect of Silt and Pore Water Characteristics on Dispersivity and Swelling Potential of Bentonite, Shahbazi, M, 2007.

6-X-ray Diffraction Sensitivity of Chlorite and Kaolinite Clay Minerals to Different Treatments in the Presence of Calcium Carbonate, Zangene, M., 2012.

7-Influence of Temprature on the Interaction Process of Clay and Carbonate from Micro-Structural Point of View, Pourzafarani, M., 2012.

8-Effect of Quantity and Method of Carbonate Removal on Contaminant Remediation of Carbonated Kaolinite in the Process of Electrokinetic, Bahadori Nezhad, O.R., 2012.

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10- Effect of temperature variations rate on the kaolinite peak intensity changes in clayey soils and contaminated clayey soils. Hejazi-Far, H., 2016.

11- Impact of Temperature and Cation Type of Double Layer on the Adsorption of Heavy Metal Contaminants in High Plasticity Index Clays, Vejdani Vahid, Alireza, 2019.

12- Impact of Temperature on Heavy Metal Retention of Carbonated and Decarbonated Clayey Soils, Lotfi, S., 2021.

13- Influence of Heat Treatment on Lead Retention by Solidified Cement-Based Bentonite at the Presence of Blast Furnace Slag and Carbonate, Mohammadi, M., 2023.

14- Impact of Heat Improvement Treatment on Heavy Metal Retention by Carbonate-Fly Ash-Cement-Based Solidified Bentonite, Gohari, S., 2023.

### **Director of Dissertations / Thesis**

#### **PhD. Supervisor:**

1-Impact of Temperature and Pore Fluid Properties on the geotechnical and geo-environmental behaviour of smectite, Goodarzi, A.R., 2010.

2- Micro-Structural and Geotechnical Study of Soft Clayey Soil Stabilization and Heavy Metal Retention in Stabilization/Solidification in the Presence of Micro and Nano-Clay Particles, Amiri, M., 2015.

3-The long term behaviour of Heavy Heavy Metal Retention in Stabilization/Solidification, Deiranlou, M, 2020.

4-Impact of Freeze and Thawing on the Behaviour of Cement Based Solidified Contaminated Bentonite, Yousefi, B., 2023, (In Progress).

5- Impact of Electrokinetics Process on the Contaminant Removal from Different Fractions of Clayey Soils. Farahpour, A., 2023, (In Progress).

6- Use of Additive for Enhancement of Zeolite in PRB, Mirzazadeh, Z. 2023 (In Progress).

#### **Course Taught:**

##### *A- Undergraduate Course*

- 1 Geo-Environmental Engineering
- 2-Foundation Engineering
- 3-Pavement Design
- 4-Soil Mechanics
- 5-Soil Mechanics Laboratory

##### *B- Graduate Course*

- 1-Advanced Geo-Environmental Engineering
- 2-Fundamental of Soil Behaviour
- 3-Design of Landfills
- 4-Contaminant Transport in Clayey Soils
- 5-Soil Remediation
- 6-Advance Soil Mechanics
- 7-Treatment of Soils for Engineering and Geo-Environmental Engineering Purposes
- 8-Advanced Geo-Environmental Engineering.
- 9-Advanced Foundation Engineering

#### **References**

Available on Request