

# Curriculum Vita

## Ali Haghtalab (PhD)

- Professor of Chemical Engineering
- Department of Chemical Engineering
- Tarbiat Modares University, Tehran, Iran
- Tel: (09821) 82883313, Fax: (09821)82883381
- Birth: 15/05/1956 (Kashan, Iran)

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### Citations indices (Google Scholar):

- Citations : 1239
- h-index : 20
- i10-index : 42

### Education:

- BSc, Chemical Engineering, Shiraz University, Iran, 1982.
- M.Eng, Chemical Engineering, McGill University, Canada, 1985
- PhD, Chemical Engineering, McGill University, Canada. 1990

### Employment:

- Professor, Tarbiat Modares University, Tehran, Iran (2007).
- Associate Professor, Tarbiat Modares University, Tehran, Iran (1997-2006).
- Assistant Professor, Tarbiat Modares University, Tehran, Iran 1990-1997).
- Visiting Professor, University of Toronto, Toronto, Canada (2001- 2002).
- Visiting Professor, Qatar University, Doha, Qatar (2003-2006).

### Research interests:

- Thermodynamics
- Molecular Thermodynamics of Fluid Phase Equilibria
- Thermodynamics of Mixtures (Electrolyte, Polymer,...)
- Treatment of Natural Gas and Gas processing
- Phase behavior of reservoir fluids
- Scaling in petroleum reservoir and metal surfaces
- Fluid Mechanics and Rheology
- Gas to Liquid (GTL)
- Gas hydrate
- Nanocomposite polymer rheology
- Extraction of Biomolecules by Aqueous Two Phase Partitioning and Reverse micellar Extraction

### Research projects:

- Experiment and modeling of scaling in oil transportation pipes and on the metal surfaces
- Experiment and thermodynamic modeling of solubility of acid gases in chemical solvents

- Modeling and simulation of acid gas removal of natural gas with Alkanolamines using Aspen Plus and OLI system, Qatar University, Doha, Qatar
- Modeling of Dehydration process of Natural Gas with TEG
- Study of Gas to Liquid (GTL) using Fischer- Tropsch process.
- Extraction and purification of Proteins using Aqueous Two Phase Systems ,1996-2001, National Research Council of Iran
- Purification of Proteins using Reverse Micelles, 1996-2001
- Construction of a Parallel Plate rheometer for Molten Polymers, 1996-2001, National Research Council of Iran
- Optimization of Rubber Mixing using Banbury, 1996-1998, Kian Tire Rubber Industry
- The Chemo Rheological Study of Hydroxy Terminated Poly Butadiene with Solid Fillers, 1991-1993, the Research Center of National Defense

**Courses taught:**

- Advanced Thermodynamics (1990-2017)
- Advanced Fluid Mechanics (1990-2017)
- Prediction of Physical properties of Fluids (2000-2016)
- Phase behavior of Reservoir Fluids (2012-2017)
- Thermodynamic of Mixtures (1995-2017)
- Advanced Rheology (1991-2014)
- Transport Phenomena of Non-Newtonian Fluids (2007-2015)
- Gas Engineering ( 2004-2007)
- Treatment of Natural Gas ( 2004-2007)
- Petrochemical Processes (2004-2005).
- Advanced Topics in Aqueous Process Engineering (University of Toronto, Department of Chemical Engineering and Applied Chemistry - Graduate Course, 2001-2002).
- Industrial Rheology (1991-2000)
- Physical Chemistry (1992-1997)
- Fluid Mechanics (1991-2006)
- Chemical Engineering Thermodynamics I & II (1990-2006)
- Heat Transfer (2004-2005)

**Service Activities:**

- Head of Reservoir Engineering Group (2014-2016)
- Head of Chemical Engineering Group (2011-2013)
- General Director of Continuing Educational Office, 1990-1993 (Ministry of Science, Technology and Research, Iran).
- Vice-President of National Research Council of Iran, 1996-2001.
- General Director of Graduate Programing Office, 1993-1996 (Tarbiat Modares University).
- Head of Thermodynamics Group, 1990-1992 (Tarbiat Modares University).
- Director of the Rheology Laboratory, 1998-2003 (Tarbiat Modares University).
- Member of the Board of Directors, 1997-2002 (The Iranian Association of Chemical Engineers).
- Member of special National Scientific Iranian research Council, 1376-1381.
- Member of strategic committee of Chemical Engineering Department, Qatar University.
- Member of Recruitment committee of Chemical Engineering, Qatar University.
- Member of curriculum committee of Chemical Engineering, Qatar University.
- Member of Scientific committee of National Iranian Chemical Engineering Congress, 1373-1383.

- Member of Editorial Chemical Engineering Board of Iranian Chemical Engineering Journal 1380-1383.
- Member of Iranian Rheology Association Founder, 2015

#### **Professional Developments:**

- Supervision and graduating of 80 Master Engineering Students
- Supervision and graduating of 21 PhD Students.
- Supervising 15 master and PhD students (in progress)

#### **Honors and Award:**

- The Iranian Association of Chemical Engineers for Secretary of the First National Chemical Engineering Congress, 1373.
- Tarbiat Modares University, Award for author of the book “Fluid Phase Equilibria of Molecular Thermodynamics of Fluid Mixtures”, Tarbiat Modares University Press, Tehran, Iran (2012).
- Tarbiat Modares University, Award for high rank qualified researcher and publication in 10 % JCR of periodicals indexed by citation of Thomson Reuters

#### **Professional Societies:**

- Secretary of the First National Chemical Engineering Congress, Tehran, Iran (1995).
- General Secretary of the International Second Non-Renewable Energy Congress, Tehran, Iran (1997).
- Member of the Editorial Board of Iranian Chemical Engineering Journal (2001-2003).
- Member of Iranian Chemical Engineering Society
- Member of Iranian Polymer Engineering Society
- Member of Iranian Rheology Association Board Institutes

#### **Book Publication:**

- “Fluid Phase Equilibria of Molecular Thermodynamics of Fluid Mixtures”, Tarbiat Modares University, Tehran, Iran (2012). Author: Ali Haghtalab and Collaborator: Abolfazl Shojaeian,

#### **Journal Publications:**

1. Haghtalab Ali, Mohammad Bagher Zare Talavaki, “Measurement of carbon dioxide solubility in aqueous diisopropanolamine solutions blended by N-(2-aminoethyl) ethanolamine + piperazine and density measurement of solutions”, Journal of Natural Gas Science and Engineering, 46, 242-250 (2017).
2. Yarveicy H. , Ali Haghtalab, “Effect of amphoteric surfactant on phase behavior of hydrocarbon-electrolyte-water system-an application in enhanced oil recovery”, Journal of Dispersion Science and Technology, in press <http://dx.doi.org/10.1080/01932691.2017.1332525> (2017).
3. Hoseini Maryam, Ali Haghtalab , Mohammad Hossein Navid Famili, “Rheology and morphology study of immiscible linear low-density polyethylene/poly(lactic acid) blends filled with nanosilica particles”, Journal of Applied Polymer Science, in press <http://doi.org/10.1002/app.45526> (2017).
4. Razavi Seyed Mohammad, Ali Haghtalab, Ali Reza Khanchi, “Solvent extraction and selective separation of vanadium (V) from an acidic sulfate solution using 2-Ethyl-1-Hexanol”, Separation and Purification Technology, 188, 358-366 (2017).
5. Afsharpour A., A. Haghtalab, “Simultaneous measurement absorption of CO<sub>2</sub> and H<sub>2</sub>S mixture into aqueous solutions containing Diisopropanolamine blended with 1-butyl-3-methylimidazolium acetate ionic liquid”, International Journal of Greenhouse gas Control, 58, 71-80 (2017).
6. Yousofi Seyf Jaber, Ali Haghtalab,” A Junction between Molecular Dynamic Simulation and

- Local Composition Models for Computation of Solid-Liquid Equilibrium-A Pharmaceutical Solubility Application, *Fluid Phase Equilibria*, 437, 83-95(2017).
7. Haghtalab Ali, H. Hasannataj. H. Soltani Panah," Modified quadrupole Cubic Plus Association Equation of State (mqCPA EoS) for thermodynamic modeling of polymer-supercritical CO<sub>2</sub> systems". *Fluid Phase Equilibria*, 435, 27-36(2017).
  8. Afsharpour Ali, A. Haghtalab, "Modeling of CO<sub>2</sub> Solubility in aqueous N-methyldiethanolamine Solution Using Electrolyte modified HKM Plus Association Equation of State", *Fluid Phase Equilibria*, 433, 149-158(2017).
  9. Shahi P., A. H. Behraves, Ali Haghtalab, Ghaus Rizivi, F. Goharpei, " An experimental study on foaming of linear low-density polyethylene/high-density polyethylene blends", *Journal of Cellular Plastics*, V. 53, N.1, 83-105 (2017)
  10. Hoseini M., Ali Haghtalab, M. N. Famili,"Influence of Compounding Methods on Rheology and Morphology of Linear Low Density Polyethylene/Poly (Lactic Acid)", *Applied Rheology*, 26, 64746 (2016).
  11. Haghtalab Ali, A. Moghaddam, " Prediction of Minimum Miscibility Pressure using UNIFAC Group Contribution Activity Coefficient model and LCVM mixing rule", *Ind. Eng. Chem. Res.*, 55, 2840-2851 (2016).
  12. Haghtalab Ali, J. Yousofi, "Measurement and Thermodynamic Modeling the Solubility of Lamotrigine, Deferiprone, Cefixime Trihydrate, and Cephalexin Monohydrate in Different Pure Solvents from 283.1 to 323.1 K", *Journal of Chem. Eng. Data*, 61, 2170-2178 (2016)
  13. Haghtalab Ali, M. Mohammadi," Experimental study and thermodynamic modeling of CO<sub>2</sub> gas hydrate formation in presence of zinc oxide nanoparticles", *J. Chem. Thermodynamics*, 96, 24-33 (2016).
  14. Soltani Panah H.R., Ali Haghtalab, M. Abdollahi, A. H. Mohammadi, D.Ramjugernath, W.M. Nelson, A. Zarringhalam Moghaddam a, M.Hemmati, "Experimental measurements and thermodynamic modeling of the cloud point pressure for solubility of copolymers of vinyl acetate and dibutyl maleate in supercritical CO<sub>2</sub>", *Fluid Phase Equilib.*, 425, 136-142 (2016).
  15. Haghtalab Ali, J. Yousofi, Y. Mansouri, " Flash Point Prediction of Binary and Ternary Mixtures Using Different Activity Coefficient Models", *Fluid Phase Equilib.*, 415, 58-63 (2016)
  16. Haghtalab Ali, J. Yousefi Seyf, "A new insight to validation of local composition models in binary mixtures using molecular dynamic simulation", *AIChE J.*, V. 62 (1), 275-286, (2016).
  17. Haghtalab Ali, M. H. Badizad, "Solubility of gypsum in aqueous NaCl+K<sub>2</sub>SO<sub>4</sub> solution using calcium ion selective electrode- investigation of ionic interactions", *Fluid Phase Equilib.*, 409, 341-353 (2016).
  18. Haghtalab Ali, J. Yousefi Seyf, " Vapor-Liquid and Solid-Liquid modeling with a UNiversal QUAsiChemical Segment-based Activity Coefficient model (UNIQUAC-SAC)", *Ind. Eng. Chem. Res.*, 54,8611-8623 (2015).
  19. Shahi P., A. H. Behraves, Ali Haghtalab, Ghaus Rizivi, R. Pop-Iliev, F. Goharpei," Effect of Mixing Intensity on Foaming Behavior of LLDPE/HDPE Blends in Thermal Induced Batch Process", *Polymer-Plastics Technology and Engineering*, V. 55, N.9, 949-964 (2016).
  20. Haghtalab Ali, A. Afshapour, "Solubility of CO<sub>2</sub>+ H<sub>2</sub>S gas mixture into different aqueous N-methyldiethanolamine solutions blended with 1-butyl-3-methylimidazolium acetate ionic liquid", *Fluid Phase Equilibria*, 406, 10-20 (2015).
  21. Haghtalab Ali, A. Izadi, "Solubility and thermodynamic modeling of hydrogen sulfide in aqueous diisopropanolamine + 2-amino-2-methyl-1-propanol + piperazine solution at high pressure", *J. Chem. Thermodynamics*, 90, 106-115 (2015).
  22. Haghtalab Ali, A. Kheiri, "High pressure measurement and CPA Equation of State for solubility of carbon dioxide and hydrogen sulfide in 1-butyl-3-methylimidazolium acetate",

- J. Chem. Thermodynamics, 89, 41-50 (2015).
23. Haghtalab Ali, E. Ghahremani, "The solubility measurement and modeling of CO<sub>2</sub> in aqueous solution of N-methyldiethanolamine+ 2-amino-2-methyl-1-propanol+piperazine at high pressure", Fluid Phase Equilibria, 400, 62-75 (2015).
  24. Haghtalab Ali, M. Mohammadi, Zahra Fakhroueian, " Absorption and solubility measurement of CO<sub>2</sub> in water-based ZnO and SiO<sub>2</sub> nanofluids", Fluid Phase Equilibria. 392, 33-42 (2015).
  25. Haghtalab Ali, Hamidreza Soltani Panah , "Modeling cloud point of soluble polymers in supercritical carbon dioxide fluid using PCP-SAFT equation of state- An application in enhanced oil recovery", The J. of Supercritical Fluids, 97, 45-50 (2015).
  26. Haghtalab Ali, Abolfazl Shojaeian, "High pressure measurement and thermodynamic modelling of the solubility of carbon dioxide in N-methyldiethanolamine and 1-butyl-3-methylimidazolium acetate mixture", J. Chem. Thermodynamics,81,237-244 (2015).
  27. Amir Mosayebi, Ali Haghtalab, "The comprehensive kinetic modeling of the Fischer–Tropsch synthesis over Co@Ru/c-Al<sub>2</sub>O<sub>3</sub> core–shell structure catalyst", Chemical Engineering Journal, 259, 191-204 (2015).
  28. Reza Gharibshahi, Arezou Jafari, Ali Haghtalab, Mohammad Saber Karambeigi," Application of CFD to evaluate the pore morphology effect on nanofluid flooding for enhanced oil recovery", RSC Adv., 2015, 5, 28938–28949 (2015).
  29. Amir Mosayebi, Ali Haghtalab, "Co@Ru nanoparticle with core-shell structure supported over  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> for Fischer-Tropsch synthesis", The International Journal of Hydrogen Energy", 391, 8882-18893 (2014).
  30. Somayeh Farzad, Alimorad Rashidi, Ali Haghtalab, Mohsen Ali Mandegari, "Study of effective parameters in the Fischer Tropsch synthesis using monolithic CNT supported cobalt catalysts", Fuel, 132, 27-35 (2014).
  31. Aliakbar Paraj , Ali Haghtalab, Babak Mokhtarani, "[1-Ethyl-2,3-dimethyl-imidazolium][ethylsulfate]-based aqueous two phase systems: New experimental data and modeling", Fluid Phase Equilibria, 382, 212-218 (2014).
  32. Rahmat Sotudeh-Gharebagh, Hamed Bashiri, Amin Sarvar-Amini, Ali Haghtalab, Navid Mostoufi, "Comparative simulation of a fluidised bed reformer using industrial process simulators", International Journal of Sustainable Energy  
" ,<http://dx.doi.org/10.1080/14786451.2014.932280>, Comparative ( 2014)
  33. Haghtalab Ali, M. J. Kamali, A. Shahrabadi, H. Golghanddashti, "Investigation of the Precipitation of Calcium Sulfate in Porous Media: Experimental and Mathematical Modeling", Chemical Engineering Communications,202, 1221-1230 (2014)
  34. Zahra Kiaei, Ali Haghtalab, " Experimental study of using Ca-DTPMP nanoparticles in inhibition of CaCO<sub>3</sub> scaling in a bulk water process", Desalination, 338, 84-92 (2014)
  35. Haghtalab Ali, Mohamad Javad Kamali, Abbas Shahrabadi, "Prediction mineral scale formation in oil reservoirs during water injection", Fluid Phase Equilibria, 373, 43-54 (2014).
  36. Haghtalab Ali., Amin Izadi, "Simultaneous measurement solubility of carbon dioxide + hydrogensulfide into aqueous blends of alkanolamines at high pressure", Fluid Phase Equilibria, 375, 181-190 (2014).
  37. Haghtalab Ali, Amin Izadi, Abolfazl Shojaeian, "High pressure measurement and thermodynamic modeling the solubility of H<sub>2</sub>S in the aqueous N-methyldiethanolamine+ 2-amino-2-methyl-1-propanol + piperazine systems", Fluid Phase Equilibria, 363, 263-275 (2014).
  38. Haghtalab Ali, H. Eghbali, A. Shojaeian, "Experiment and modeling solubility of CO<sub>2</sub> in aqueous solutions of Diisopropanolamine + 2-amino-2-methyl-1-propanol + Piperazine at high pressures", The Journal of Chemical Thermodynamics, 71 , 71-83(2014).
  39. Haghtalab Ali, A. Shojaeian, A. E. Ebrahimiqaqa, "A new segmental local composition

- model for calculation of thermodynamic properties of binary polymer solutions”, *Scientia Iranica. Transaction C, Chemistry, Chemical Engineering* 21.6, 2087-2097, (2014).
40. Mohammadi Abolfazl, Mehrdad Manteghian, Ali Haghtalab, Amir H. Mohammadi, Mahboubeh Rahmati-Abkenar,” Kinetic study of carbon dioxide hydrate formation in presence of silver nanoparticles and SDS”, *The Chemical Engineering Journal*”, 237, 387-395 (2013).
  41. Haghtalab Ali, A. Shojaeian, “Solubility and density of carbon dioxide in different aqueous alkanolamine solutions blended with 1-butyl-3-methylimidazolium acetate ionic liquid at high pressure”. *Journal of Molecular Liquids*, 187, 218-225 (2013).
  42. Haghtalab Ali, A. Shojaeian, “Volumetric and viscometric behavior of the binary systems of N-methyldiethanolamine and Diethanolamine with 1-butyl-3-methylimidazolium acetate at various temperatures”, *The Journal of Chemical Thermodynamics*”,68, 128-137 (2013).
  43. Haghtalab Ali, A. A. Paraj, " [1-Ethyl-3-Methyl-Imidazolium][EthylSulfate]-based aqueous two phase systems: New experimental data and new modeling", *Journal of Chemical Thermodynamics*, 65, 83-90 (2013)
  44. Moradi Sara, Ali Haghtalab, Alireza Fazlali, Prediction of hydrate formation conditions in the solutions containing electrolyte and alcohol inhibitors and their mixtures using UNIQUAC-NRF models", *Fluid Phase Equilibria*,349, 61-66 (2013)
  45. Zare Marziyeh, Ali Haghtalab, Amir Naser Ahmadi, Khodadad Nazari, " Experiment and thermodynamic modeling of methane hydrate equilibria in the presence of aqueous imidazolium-based ionic liquid solutions using electrolyte cubic square well equation of state", *Fluid Phase Equilibria*, 341, 61-69 (2013)
  46. Nabipoor Hassankiadek Mojtaba, Ali Haghtalab, “Product Distribution of Fischer-Tropsch Synthesis in a Slurry Bubble Column Reactor Based on Langmuir-Freundlich Isotherm”, *Chem. Eng. Comm.*, 200:1170–1186 (2013).
  47. Haghtalab Ali, A. A. Paraj, Computation of liquid–liquid equilibrium of organic-ionic liquid systems using NRTL, UNIQUAC and NRTL-NRF models", *Journal of Molecular Liquids*, 171, 43-49 (2012).
  48. Soury E., A. H. Behraves, N. Jafarian Jam and A. Haghtalab, “An experimental investigation on surface quality and water absorption of extruded wood–plastic composite”, *Journal of Thermoplastic Composite Materials*, 1–19 (2012).
  49. Zare Marziyeh, Ali Haghtalab, Amir Naser Ahmadi, Khodadad Nazari, " Experiment and thermodynamic modeling of methane hydrate equilibria in the presence of aqueous imidazolium-based ionic liquid solutions using electrolyte cubic square well equation of state", *Fluid Phase Equilibria*, 341, 61-69 (2013)
  50. Mazloumi S. H., A. Haghtalab, A. H. Jalili, M. Shokouhi, "Solubility of H<sub>2</sub>S in Aqueous Diisopropanolamine + Piperazine Solutions: New Experimental Data and Modeling with the Electrolyte Cubic Square-Well Equation of State", *Journal of Chemical & Engineering data*, 57, 2625-2631 (2012)
  51. Haghtalab Ali, Zahra Kiaei," Evaluation of the effective parameters in synthesis of the nano-structured scaling inhibitors applicable in oil fields with sea water injection process", *J Nanopart Res*,14:1210(2012)
  52. Haghtalab Ali , M. Zare, A.N. Ahmadi, K. Nazari,"Prediction of hydrate equilibrium conditions using Electrolyte Cubic Square-Well Equation of State", *Fluid Phase Equilibria*, 333, 74-86 (2012)
  53. Peyvandi Kiana, Ali Haghtalab, Mohamad Reza Omidkhah, "Using an electrochemical technique to study the effective variables on morphology and deposition of CaCO<sub>3</sub> and BaSO<sub>4</sub> at the metal surface", *Journal of Crystal Growth*,354, 109-118 (2012)
  54. Haghtalab, Ali,M. Nabipoor, S. Farzad, "Kinetic modeling of the Fischer–Tropsch synthesis in a slurry phase bubble column reactor using Langmuir–Freundlich isotherm, *Fuel*

- Processing Technology, 104,73-79 (2012)
55. Haghtalab Ali, S. Rahimi, Study of Viscoelastic Properties of Nanocomposites of SiO<sub>2</sub>-Acrylonitrile-Butadiene-Styrene", Journal of Applied Polymer Science, DOI:10.1002/APP.38041 (2012)
  56. Haghtalab A., Abolfazl Shojaeian, " Extension of the segmental-NRTL-NRF model for calculation of excess molar enthalpy of polymer solution", Polymer Research Journal, 6, N. 2,1-9 (2012)
  57. Haghtalab Ali, P. Mahmoodi, S. H. Mazloumi, "A modified Peng-Robinson equation of state for phase equilibrium calculation of liquefied, synthetic natural gas and gas condensate mixtures" The Canadian Journal of Chemical Engineering, 9999 (2011).
  58. Haghtalab, Ali, R. Marzban, "Viscoelastic properties of nano-silica filled polypropylene in the molten state: Effect of particle size, Advances in Polymer Technology,30, 3 (2011).
  59. Haghtalab, Ali, A. Shojaeian, S. H. Mazloumi, " Nonelectrolyte NRTL-NRF model to study thermodynamics of strong and weak electrolyte solutions", J. of Chem. Thermodynamics, 43, 354-363 (2011).
  60. Haghtalab Ali, S.H. Mazloumi, " Electrolyte Cubic Square-Well Equation of State for Computation of the Solubility CO<sub>2</sub> and H<sub>2</sub>S in Aqueous MDEA Solutions", Ind. Eng. Chem. Res., 49,6221-6230 (2010).
  61. Haghtalab Ali, M.J. Kamali, S.H. Mazloumi " A new three-parameter cubic equation of state for calculation physical properties and vapor-liquid equilibria", Fluid Phase Equilibria,293, 209-218(2010).
  62. Haghtalab Ali, Somayeh Farzad, " A New Gas Adsorption Isotherm using the Vacancy Solution Theory and NRTL Activity Coefficient Model", Fluid Phase Equilibria, in press (2010).
  63. Haghtalab Ali, Peyman Mahmoodi, "Vapor-liquid equilibria of asymmetrical systems using UNIFAC-NRF group contribution activity coefficient model", Fluid Phase Equilibria,289, 61-71(2010).
  64. Haghtalab Ali, S.H. Mazloumi, "A Square-well Equation of State for Strong Aqueous Electrolyte Solutions", Fluid Phase Equilibria, 285, 96-114 (2009)
  65. Haghtalab Ali, A. Shojaeian, " Modeling Solubility of Acid Gases in Alkanolamines using the Nonelectrolyte Wilson Nonrandom Factor Model", Fluid Phase Equilibria, 289,6-14 (2010).
  66. Haghtalab A., K. Peyvandi, " Electrolyte UNIQUAC-NRF Model for the Correlation of the Mean Activity Coefficient of Electrolyte Solutions", Fluid Phase Equilibria, 281, 163-171 (2009).
  67. Haghtalab Ali, S.H. Mazloumi, "A New Coordination Number Model for Development of the Square-well Equation of State ", Fluid Phase Equilibria, 280, 1-8 (2009).
  68. Haghtalab Ali, Marzieh Joda , " Modification of NRTL-NRF Model for Computation of Liquid-Liquid Equilibria in Aqueous Two-Phase Polymer-Salt Systems", Fluid Phase Equilibria, 278,20-26 (2009).
  69. Sanjari S. , M. Nosrati, Ali Haghtalab, " Osmotic coefficient data and an excess Gibbs energy function for single phase complex system of glucose+alcohol+water", Fluid Phase Equilibria, 277, 107-113 (2009).
  70. Haghtalab Ali, S.H. Mazloumi, " A nonelectrolyte local composition model and its application in the correlation of the mean activity coefficient of aqueous electrolyte solutions", Fluid Phase Equilibria, 275, 70-77 (2009).
  71. Haghtalab Ali, A. Irankhah, "Fischer-Tropsch Synthesis Over Co-Ru/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> Catalyst in Supercritical Media", Chemical Engineering Technology, No. 4, 525-536(2008).
  72. Haghtalab Ali, M. Dehghani Tafti, "Electrolyte UNIQUAC-NRF model to study the solubility of acid gases in alkanolamines", Ind. Eng. Chem. Res., 46, 6053-6060(2007).

73. Irankhah A., A. Haghtalab, E. V. Farahani and K. Sadaghianizadeh, " Fischer-Tropsch Reaction of cobalt catalyst in supercritical phase", *Journal of Natural Gas Chemistry*, 16, 115-120 (2007).
74. Haghtalab Ali, M. Joda, " Gex-Model Using Local Area Fraction for Binary Electrolyte Systems", *International Journal of Thermophysics*, V. 3, N.28, 876-890(2007).
75. Amini S., Sotoudeh R., Mostoufi B, Haghtalab A., "Sequential Simulation of a Fluidized Bed Membrane, Reactor for the Stream Methane Reforming using ASPEN Plus", *Energy and Fuel*, V. 70, 9 (2007).
76. Ansari M., Ali Haghtalab , M. Semsarzadeh, "Effects of compatibilization on rheological properties of PS/PB blends and investigation of Doi–Ohta scaling relationship in double start-up of shear experiments", *Rheologica Acta* , 45, 983-993(2006).
77. Haghtalab Ali, B. Mokhtarani, "The UNIFAC-NRF activity coefficient model based on group contribution for partitioning of proteins in aqueous two phase (polymer + salt) systems", *J. of Chemical Thermodynamics*, V. 37/3, 289-295 (2005).
78. Haghtalab Ali., Shahriar Osfouri," A Simple Complexation model and the experimental data for protein extraction using reverse micellar systems", *Iranian Journal of Biotechnology*, Vol 2, No.2,106-112 (2004).
79. Haghtalab Ali, R. Espenani, "A New model and extension of Wong-Sandler Mixing Rule for Calculation of Vapor-Liquid equilibrium of Polymer Solutions using EOS/GE", *J. of Chemical Thermodynamics*, V. 36/10, 901-910(2004).
80. Haghtalab Ali, G. Sodeifian," Discrete Relaxation Spectrum and K-BKZ Constitutive Equation for PVC, NBR and Their Blends", *Journal of Applied Rheology*, 14:4, 180-189 (2004).
81. Haghtalab Ali, B. Mokhtarani, "The new experimental data and a new thermodynamic model based on group contribution for correlation liquid-liquid equilibria in aqueous two-phase systems of PEG and (K<sub>2</sub>HPO<sub>4</sub> or Na<sub>2</sub>SO<sub>4</sub>)", *Fluid Phase Equilibria*, 215, 151-161 (2004).
82. Haghtalab Ali, Vladimiro Papangelakis and Xuetao Zhu, "The Local Composition Electrolyte NRTL model and speciation approach as applied to multicomponent aqueous solutions of H<sub>2</sub>SO<sub>4</sub>, Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> , MgSO<sub>4</sub> and Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> at 230 - 270 oC", *Fluid Phase Equilibria*, 220, 2, 199-209 (2004).
83. Haghtalab Ali, B. Mokhtarani, and G. Maurer, "Experimental Results and Thermodynamic Modeling of the Partitioning of Lysozyme, Bovine Serum Albumin, and  $\alpha$ -Amylase in Aqueous Two-Phase Systems of PEG and (K<sub>2</sub>HPO<sub>4</sub> or Na<sub>2</sub>SO<sub>4</sub>)", *Journal of Chemical and Engineering Data*, 48 (5), 1170 -1177 (2003).
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85. Haghtalab Ali, G. Sodeifian, "Determination of the Discrete Relaxation spectrum for Polybutadiene and Polystyrene by a Non-linear regression Method", *Iranian Polymer Journal*, V. 11, No.2 (2002).
86. Haghtalab Ali, B. Mokhtarani, "On extension of UNIQUAC-NRF model to study the phase behavior of aqueous two-phase polymer - salt systems", *Fluid Phase Equilibria*, 180 ,139-149 (2001).
87. Haghtalab Ali, M. Hemmati and J. Allaie, "Rheological study of polyethylene/ Polypropylene Blends", *J. of Polymer and Technology*, V. 13, 4, (2000).
88. Haghtalab Ali, M. A. Asadollahi, "An excess Gibbs Energy model to study the phase behavior of aqueous Two - Phase systems of polyethene glycol + dextran", *Fluid Phase Equilibria*,17 (1-2), 77-79 (2000).
89. Haghtalab Ali, M. Nosrati, "Nonrandom factor model for the excess Gibbs free energy of weak electrolytes including phosphoric acid", *Fluid Phase Equilibria*, 152(1), 43-55 (1998).
90. Haghtalab Ali, H. Mirza Seiedi, "Prediction of viscoelastic properties of epoxy composite



- with unidirectional of glass fibers”, Iranian polymer journal, V. 1, (1998).
91. Haghtalab Ali, SH. Osfouri, “The application of NRTL-NRF model for excess Gibbs free energy of aqueous multi electrolyte solutions”, Iranian Journal of Science & Technology, 22B, (1998).
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