# Fahkri Kermanpour

Associate Professor in Physical Chemistry, Faculty of Chemistry, Bu-Ali Sina University, Hamedan, Iran; Since **2000**.
**B. S.:** 1985-1989, Pure Chemistry, Isfahan University.
**M. S.:** 1989-1992, Physical Chemistry, Isfahan University of Technology.
**Ph. D.:** 1996-2000, Statistical Thermodynamics, Isfahan University of Technology.

## Research Areas:

· Modeling of Fluid and Fluid Mixture Properties
· Intermolecular Forces
· Transport Properties
· Nanothermodynamics

## Publications:

1. G.A. Parsafar, B. Najafi, and F. Kermanpour, "Prediction of the Temperature and Density Dependencies of the Parameters of the Average

Effective Pair Potential Using Only the LIR Equation of State", *J. Phys. Chem. B*, 103, 7287-92, **1999**.

2. G.A. Parsafar, and F. Kermanour, "Prediction of the Temperature and Density Dependencies of the Parameters of the Average Effective Binary Mixture Pair Potential Using Only the LIR Equation of State", *Int. J. Thermophys.*, 22, 1795-812, **2001**.

3. F. Kermanpour, G.A. Parsafar, and G.A. Mansoori, "Investigation of the Temperature and Density Dependencies of the Effective Pair Potential Parameters Using Variational Theory", *Int. J. Thermophys*, 25, 188-203, **2004**.

4. F. Kermanpour, "Deriving analytical expressions for the state dependencies of the effective pair potential parameters using VIM theory", *J. Mol. Liqs.*, 123, 124-9, **2006**.

5. F. Kermanpour, "A generalized correlation function for the viscosity of light hydrocarbons at high densities", *J. Mol. Liqs.*, 128 (1-3), 172-4, **2006**.

6. F. Kermanpour, "Derivation a simple coordination number model using a given equation of state and the effective pair potential function", *J. Mol. Liqs.*, 130, 38-41, **2007**.

7. N. Farzi, R. Safari, and F. Kermanpour, "Application LIR in prediction of surface tension and its temperature coefficient of liquid alkali metals", *J. Mol. Liqs*., 137, 159-64, **2008**.

8. F. Kermanpour, and N. Farzi, "A comparative study between the effective pair potential parameters obtained from different equation of states", *Ind. J. Chem. A*, 47A, 979-85, **2008**.

9. F. Kermanpour, H. Jahani, and H. Iloukhani, *"*Excess molar volume and derived thermodynamic properties of binary mixtures of 2-methyl-1-butanol and 2-ethyl-1-butanol + different ethers at the temperature range of 293.15 to 313.15 K*"*, *J. Mol. Liqs.*, 146, 29-34, **2009**.

10. F. Kermanpour, and M. Fatahi, "Prediction of the structural factor behavior of mono atomic fluids using the HNC approximation and the ISM equation of state ", *J. Mol. Liqs*., 148, 13-7, **2009**.

11. F. Kermanpour, *"*A Generalized Correlation Function for the Thermal Conductivity of Light Hydrocarbons at High Densities*"*, *Ind. Che. Eng*., 51, 281-6, **2009**.

12. Y. Liu, F. Kermanpour, H.L. Liu, Y. Hu, Y.Z. Shang, S.I. Sandler, J.W. Jiang, "Molecular Thermodynamic Model for DNA Melting in Ionic and Crowded Solutions", *J. Phys. Chem. B,* 114, 9905–11, **2010.**

13. F. Kermanpour, and T. Sharifi, "Thermodynamic study of binary mixture of $x_1$[$C_6$mim][$BF_4$] + $x_2$1-propanol: Measurements and molecular modeling", *Thermochim. Acta*, 527, 211–18, **2012**.

14. F. Kermanpour, and H. Zaheri, "Measurement and modeling the excess molar properties of binary mixtures of {[C6mim][BF4] + 3-amino-1-propanol} and {[C6mim][BF4] + isobutanol}: Application of Prigogine–Flory–Patterson theory", *J. Chem. Thermodyn.*, 48, 129–39, **2012**.

15. F. Kermanpour, "The excess molar properties of {$x_1$[$C_6$min][BF4] + $x_2$2-propanol}: Application of ERAS model", *J. Mol. Liqs*., 169, 156–62, **2012**.

16. F. Kermanpour, and H. Zaheri, "Experimental excess molar properties of binary mixtures of (3-amino-1-propanol + isobutanol, 2-propanol) at *T*= (293.15 to 333.15) K and modelling the excess molar volume by Prigogine–Flory–Patterson theory", *J. Chem. Thermodyn.*, 54, 10–19, **2012**.

17. F. Kermanpour, H. Zaheri, and T. Sharifi, "Measurement the density and viscosity of binary mixtures of alkanols at different temperatures and ambient pressure", *J. Chem. & Eng. Data*, 58, 1086–1091, **2013**.

18. F. Kermanpour, H. Iloukhani, and M. Javanshad, "Measurement and modeling the excess properties of binary and ternary mixtures containing [Hmim][$BF_4$], 2-methyl-2-propanol, and propylamin compounds at 298.15 K using PFP theory, *J. Mol. Liqs*., 188, 22-27, **2013**.

19. F. Kermanpour, and T. Sharifi, "Measurement and Correlation of the Excess Properties of Ternary Mixture of {$x_1$[Hmim][$BF_4$] + $x_2$1-propanol + $x_3$2-propanol} at Different Temperatures", *J. Chem. & Eng. Data*, 59, 1922-29, **2014**.

20. F. Kermanpour, H. Iloukhani, and T.S. Ettefagh, "Measurement and calculation the excess molar properties of binary mixtures containing isobutanol, 1- amino-2-propanol, and 1-propanol at temperatures of (293.15 to 333.15) K" *J. Sol. Chem.*, 46, 446-460, **2017**.

## Books:

· Kermanpour, Translation of "Thermodynamics of Small Systems", Parts I & II, T.L. Hill, Dover Publications, New York, **1994**, Bu-Ali Sina University Press, **2004**.
· F. Kermanpour, Selected Problems in Physical Chemistry, Bu-Ali Sina University Press, **2008**.
· F. Kermanpour, Translation of "The Liquid State, Applications of Molecular Simulations", David M. Heyes, John Wiley & Sons, **1998**, Bu-Ali Sina University Press, **2015**.

## Seminars:

1. Poster presentation in the 13th Seminar of Chemistry, Sep. **2000**, University of Tarbiat Modarres, Tehran, Iran.
2. Oral presentation in the 6th Seminar of Physical Chemistry, Sep. **2002**, University of Urmia.
3. Poster presentation in the Thermodynamics **2003**, 9-11 April, University of Cambridge.
4. Oral presentation in the 8th Seminar of Physical Chemistry, 22-24 Nov. **2005**, University of Ferdowsi, Mashhad.
5. Oral presentation in the 9th Seminar of Physical Chemistry, May **2006**, University of Gilan.
6. Oral presentation in the 10th Seminar of Physical Chemistry, 23-26 April **2007**, University of Isfahan.
7. Oral presentation in the 11th Seminar of Physical Chemistry, 22-24 July **2008**, University of Ardebil.
8. Oral presentation in the 14th Seminar of Physical Chemistry, 25-28 Feb. **2011**, University of Tehran, Kish.

## Educational Activities:

1. General Chemistry I and II
2. Practical General Chemistry I and II
3. Physical Chemistry I & II
4. Practical Physical Chemistry I & II
5. Quantum Chemistry
6. Physical and Chemical Methods of Separation
7. Advanced Physical Chemistry
8. Statistical Thermodynamics I & II
9. New Topics in Physical Chemistry
10. Nanothrmodynamics

**Other Experiences:**

**1)** Visiting Scholar at the University of Delaware, USA, Under Supervision of Professor S. I. Sandler, 3/11/2009 to 12/11/2009.

**2) Reviewer of Journals:**

· Journal of Physical Chemistry B,
· Journal of Molecular Liquids,
· Journal of Chemical and Engineering Data,
· Journal of Industrial and Engineering Chemistry,
· Chemical Industry & Chemical Engineering Quarterly
Journal of Chemical Thermodynamics

**Present Address:**
Faculty of Chemistry, Bu-Ali Sina University, Hamedan, Iran.
Phone: +98-811-828-2807 (223), Fax: +98-811-825-7404, E-Mail:
fakhri.kermanpour@gmail.com, kermanpour@basu.ac.ir