

*In The Name of God*

**Mehrdad Manteghain**

*Professor, 2017*

E-mail: Manteghi@modares.ac.ir



<b>Education:PhD</b>	<b>Academic Experiences:23</b>	<b>Academic and scientific positions: professor</b>
<b>Area of Research interest and designed teaching: separation</b>	<b>Scientific Society Membership:</b>	<b>Journal editorial board member:</b>
<b>Referee for journal articles:20</b>	<b>Delegate:</b>	<b>List of paper presented in congresses &amp; seminars:</b>
<b>Journal papers:</b>	<b>Thesis Supervision:</b>	<b>Research Students Consultation:</b>
<b>Research project leader:</b>	<b>Books author:1</b>	<b>Book translation:</b>
<b>Given Lectures:</b>	<b>Participated workshops:</b>	<b>Work in progress:</b>
<b>Others:17</b>		

Name: Mehrdad Manteghain

Date & place of birth: 1957, Kermanshah, Iran

Marital Status: Married

Address: Department of Chemical Engineering  
Tarbiat Modares University  
P.O.Box. 14155-111 Tehran, Islamic Republic of Iran

Tel: +98(21) 82883527- 82883333

Fax: +98(21) 88006544

Academic status: Associate Professor

**Education:**

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Date</u>
B.Sc.	Amir Kabir	Chemical. Eng.	1982
M.Sc.	UMIST	Chemical. Eng.	1985
Ph.D.	UMIST	Chemical. Eng.	1989

**Academic Experiences:**

**Academic and scientific positions:**

- Associate Professor Tarbiat Modares University, Tehran (1989-2001)

**Area of Research interest and designed teaching:**

- Industrial Crystallization
- Mass Transfer

**Scientific Society Membership:**

**Journal editorial board member:**

**Referee for journal articles:**

- Iranian Journal of Science & Technology
- Amir Kabir

**Delegate:**

List of paper presented in congresses & seminars[Author(s), Name of Congress, City, Country, Year, Proceeding, Page(s)]:

1- M. Manteghian, N.S. Tavare, J. Garside, "Production of Boric Acid", 1991, 11th symposium on Industrial Crystallization, Germany.

2- M. Manteghian, A. Ebrahimi, "Solubility and Growth Kinetics of Silver Nitrate in Ethanol", International Conference on Mixing and Crystallization, 1998, Malaysia.

3- M. Manteghian, H. Mazaheri & O. Muhammad, "New Correlation Between the Aniline Point and the Kauri-Butanol Number", 9th Conf. on Oil, Gas & Petrochemistry, Tehran, Iran, 1997.

4- M. Manteghian, O. Muhammad, "Numbers Indicate Safety", 2nd INRESC Proceedings, Tehran, Iran, 1998.

5- M. Manteghian, A. Ebrahimi, "Crystallization of Silver Nitrate", 3rd Congress on Chemical Engineering, Tehran, Iran, 1997.

6- M. Manteghian, B. Mohammadi, H. Nazeri, "Determination of the Metastable Zone in Ammonium Perchlorate Crystallization from its Common Aqueous Solution With Sodium Chloride," 1st National Congress on Chemical Engineering, 1994, Tehran, Iran.

7- M. Manteghian, "An Introduction to the Fire and Explosion Index," A Conference on Production Processes and Application of Explosives, 1998, Tehran, Iran.

8- M. Manteghian, M.H. Parsa, "Determination of the Kinetics of Thickness Increase of Tappets in an Iron-Manganese Phosphating Process," 3rd Seminar on Surface Engineering, 1999, Tehran, Iran.

9- M.T. Hamidi, M. Manteghian, "Determination of Ion Exchange Isotherms of Calcium and Magnesium with Zeolites in Water Softening," 5th National Congress & 4th International Congress on Chemical Engineering, 2000, Shiraz, Iran.

10- A.H. Zamzamian & M. Manteghian, "Efficiency of Particle Separation in Cyclones," 4th National Congress on Chemical Engineering, 1998, Tehran, Iran.

11- N. Naser, M. Manteghian, "A mathematical model to predict supersaturation curve", 5th National & 4th International Chemical Engineering Congress, Shiraz, Iran, 2000.

12- J. Ahmadpanah, M. Manteghian, "Determination of reaction kinetics in Production of Phosphoric Acid", 6th National Congress on Chemical Engineering, 2001, Isfahan, Iran.

13- M. Manteghian, A. Salehian, "Precipitation of Citric Acid with Calcium Carbonate", 6th National Congress on Chemical Engineering, 2001, Isfahan, Iran.

14- Manteghian, M. "Effect of independent internal research on a successful import of technology", Congress on the Research Means in Engineering, Tehran, 2002.

15- Manteghian, M., Z. Heydari, "Lab. Studies of production of mono and di sodium phosphate", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.

16- Manteghian, M., S. Heydari, "Determination of the kinetics of the reaction between iron and nitric acid", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.

17- Manteghian, M., M. Noroozi, "Crystallization of phosphoric acid through cooling with seeds' addition", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.

18- Manteghian, M., A. Tafvizi, F. Sotoodeh, "Determination of the reaction kinetics of calcium phosphate", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.

19- Manteghian, M., M. Moghtasedi, "Production of valuable salts from lake Urmia", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.

- 20- Manteghian, M., A. Toosi, "Effect of mixing on crystallization", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.
- 21- Manteghian, Yazdany, H. Afsahi., "Determination of the reaction kinetics of choline chloride", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.
- 22- Manteghian, M. , Sahaby, "Study of the reaction kinetics of ammonium phosphate", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.
- 23- Manteghian, M. , I. Naser, "The growth kinetics of strontium chloride in water", 7<sup>th</sup> congress on Chemical Engineering, Tehran, 2002.
- 24- Manteghian, M., M. Noroozi, "Purification of phosphoric acid for food purposes", 13<sup>th</sup> congress on Food Industries, Tehran, 2002.
- 25- Manteghian, M., "Technologies of utilization of sulfur in the industry", congress on Sulfur, Mashhad, 2003.
- 26- Babaluo, A., M. Kokabi, M. Manteghian, R. Sarraf, "A modified model for alumina membranes formation by gel-casting and dip-forming", PAC RIM, Oct. 2003, Japan.
- 27- Sarshar, A., M. Manteghian, I. Naser, "Determination of the growth kinetics of crystals using an intermediate model and its comparison with the Arrhenius model", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.
- 28- Moghtasedi Ghomi, M., M. Manteghian, "Determination of the reaction kinetics of borax with propionic acid and production of boric acid", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.
- 29- Naser, I., M. Tajdari, M. Manteghian, "The growth kinetics of ammonium iodide in water", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.
- 30- Manteghian, M., A. Toosi, "Determination of the growth and nucleation kinetics of dihydrate sodium citrate crystals", 8<sup>th</sup>

conference on chemical engineering, Mashhad, 2003

31- Kokabi, M., A. Babaluo, M. Manteghian, R. Sarraf, "Investigation of key parameters on thickness of upper layers of inorganic membranes", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.

32- Tafvizi, A., M. Manteghian, M. Omidkhan, "Investigation of the effect of mixed gypsums containing phosphogypsum on the produced cement qualities", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003

33- Tafvizi, A., M. Manteghian, M. Omidkhan, G. Moradi, "Effect of added triethanolamide on the Portland cement physical properties", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.

34- Manteghian, M., E. Ahmadvand, "Optimization and determination of leaching kinetics of phosphate mineral with sulfuric acid", 10<sup>th</sup> congress of Iranian crystallography and mineralogy, Sistan and Baluchestan University, 1382.

35- Ghader, Manteghian, Rahimpour, Fatehi, "Description of mass transport with chemical reaction in methanol synthesis catalyst using dusty gas model", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.

36- Manteghian, M., M. Golabchi, "Determination of the mass transfer coefficient in water-phosphoric acid-MIBK system and vice versa", 8<sup>th</sup> conference on chemical engineering, Mashhad, 2003.

37- Manteghian, M., Mirdamady, M., A Mathematical Model for the Kinetics of Mass Loss during Biodegradation of Polymers, 1<sup>st</sup> Regional Workshop on Environmentally Degradable Polymers, Tehran, 2004.

38- Dadvand Koochi, A., M. Manteghian, Study of the flow type and flux in column crystallization, 9<sup>th</sup> Congress on Chemical Engineering, Tehran, 2004.

39- Laali, M., Manteghian, M., A dynamic model for concentration dispersion in packed columns, , 9<sup>th</sup> Congress on Chemical Engineering, Tehran, 2004.

40- Ganji, H., M. Manteghian, Using gas hydrate, a method for gas storing and transportation, 9<sup>th</sup> Congress on Chemical

Engineering, Tehran, 2004.

41- Mehrdel, B., M. Manteghian, "Process of potato waste for animal consumption and determination of the ash content of the products", 1<sup>st</sup> National Seminar on Recycling and Waste Management on Process Industries, Tehran, 2004.

42- Mehrdel, B., M. Manteghian, "Study of various factors on the quality of the base oil manufactured in recycling factories", 1<sup>st</sup> National Seminar on Recycling and Waste Management on Process Industries, Tehran, 2004.

43-Soroosh, S., M. Manteghian, "Study of the effects of asphaltene precipitation and its effect in petroleum reservoirs", 3<sup>rd</sup> student oil congress, Amir Kabir University, 2004, Tehran, Iran.

44- Ghadrddan, M., M. Manteghian, "A comparison of different methods of nanotube synthesis" ", 3<sup>rd</sup> student oil congress, Amir Kabir University, 2004, Tehran, Iran

45- Nejadi, S., M. Manteghian, F. Tahaii, "Study of the effects of addition of external particles in the metastable zone of crystallization ", 3<sup>rd</sup> student oil congress, Amir Kabir University, 2004, Tehran, Iran

46- Tavallali, M. , M. Manteghian, A. Azimi, A., "Two new models for estimation of local Sherwood number inside pipes and in between parallel planes", 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

47- Moaiedi, M. , Manteghian, M., "Numerical simulation of mass transfer in cleansing waters contaminated with trichloroethen", 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

48- Soroosh, S., M. Manteghian, "Adsorption of asphaltene on reservoir bed", 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

49- Mahasen, M. , M. Mirdamadi, M. Manteghian, " Survey of potassium chlorate impurities in sodium sulfate crystals", 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

50- Dorosti, R., M. Manteghian, M. Mirdamadi, " Investigation of the effect of impeller speed on dissolution kinetics of borax

in water”, 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

51- Moghtasedi, M. Manteghian, “ Determination of the RTD of wheat malta in a rotary dryer”, 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

52- Davarnejad, R. M. Biglari, M. Manteghian, “ Studying mass transfer of phosphoric acid between aqueous and organic phases in a spray column”, 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

53- Ghadrddan M. , M. Manteghian, “Steady state modeling of an MSF desalination plant”, 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

54- Ghader, S. , M. Manteghian “Experimental study on effect of different schemes for production of Ag nanoparticles”, 2005, 10<sup>th</sup> National Congress on Chemical Engineering, Zahedan, Iran

55- Abedi, R. M. Manteghian, “A model for calculation of the material factor and its application in the fire safety considerations in distillation columns”, 2005, 1<sup>st</sup> National Congress on HSE, Tehran, Iran

56- Manteghian, M. S. Jamshidi, “Speeding up the HAZOP analysis and estimating the risk radius using the fire and explosion index”, 2005, 1<sup>st</sup> National Congress on HSE, Tehran, Iran

57- Manteghian, M., H. Ganji, K. Sadaghianizadeh, Torabizadeh, “ An experimental investigation on the hydrate crystallization ”, 2005, 5<sup>th</sup> international congress on gas hydrates, Trondheim, Norway

58- Ghader, S., Dehnamaki, A., M. Manteghian, “Determination of the growth and nucleation kinetics in HMX crystallization”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

59- Manteghian, M. S. Hatamiha, “ Introducing a model for advection through numerical and analytical methods”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

60- Azimi, A., M. Manteghian, “ Determination of the mass transfer coefficient in Cr<sub>2</sub>O<sub>3</sub> oxidation” 11<sup>th</sup> congress on Chemical



Engineering, 2006, Tehran, Iran

61- Manteghian, M. S. Ziaee “Thermal modeling of chromium oxide (6) decomposition in OCM”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

62- Azimi, A. S. Ziaee, M. Manteghian, “ Study of the reaction of Cr<sub>2</sub>O<sub>3</sub> with oxygen”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

63- Ganji, H., M. Manteghian, K. Sadaghianizadeh, M. Omidkhah, “ Promotion effect of anionic, cationic and non-ionic surfactants on methane hydrate” 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

64- Ganji, H., M. Manteghian, K. Sadaghianizadeh, H. Brijanian, “ stability of methane hydrate formed in presence of surfactants” 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

65- Eltejaee, H., M. Manteghian, “ Study of methane diffusion in gas hydrate pores”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

66- Noori, P., M. Manteghian, S. Soroosh, “Separation of sulfur compounds in petrol using catalysts on carbon nanotubes”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

67- Keshavarzi, P., M. Manteghian, R. Maanijoo, “Synthesis of silver nanoparticles through reduction on copper”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

68- Manteghian M., F. Safavi, M. Mirdamadi, “Enhancing pumping and purification methods using surfactants”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

69- Ahmadvand E., M. Manteghian, M. Akbarnejad, M. Mirdamadi, M. Omidkhah, “Synthesis of single-wall nanotubes with specific purity through CVD in fluidized bed”, 11<sup>th</sup> congress on Chemical Engineering, 2006, Tehran, Iran

70- Manteghian M., M. Ghadrnan, “Water desalination using multistage flash distillation”, Congress on New Technologies in

Water Desalination, 2006, Tehran, Iran

71- Akbari A., M. Manteghian, “Improvement of non-thermal plasma systems’ efficiency in reducing NOX from exhausts”, 2<sup>nd</sup> Seminar on Air Pollution, 2007, Tehran, Iran

72- Noori P., M. Manteghian, H. Pahlavanzadeh, R. Maanijoo, “Separation of sulfur compounds from petrol using nickel oxide catalysts on carbon nanotubes”, 2006, Nanonaft85, Tehran, Iran

73- Mandegari M. H. Pahlavanzadeh, M. Manteghian,, “Comparison of desiccant cooling systems with steam compression cooling”, The 6<sup>th</sup> National Seminar on Energy, 2007, Tehran, Iran

74- Moosavi E. , M. Manteghian, “Study of water absorption phenomena in water thermal rocks with modeling the net for porous materials”, The 6<sup>th</sup> National Seminar on Energy, 2007, Tehran, Iran

75- Manteghian M., Shokari, Azimi, Ghiasi, Ansari, “wavelength effect on Kelvin-Helmholtz instability in oil-gas two-phase stratified flow using CFD modeling”, 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

76- Manteghian M., Ghader, S., “induction time of reaction crystallization of silver nanoparticles”, 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

77- Manteghian M., H. Ganji, K. Sadaghianizadeh, H. Brijanian, “using gas hydrates for natural gas storage and transportation”, 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

78- Manteghian M., Shokari, Azimi, Ghiasi, Ansari, “wavelength effect on Kelvin-Helmholtz instability in oil-gas two-phase stratified flow using CFD modeling”, 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

79- Hojaji E., M. Manteghiani, “production of sulfur nanocrystal through dilution crystallization”, 5<sup>th</sup> International

chemical engineering congress and exhibition, Iran, 2008

80- Hatamiha S., M. Manteghian, "synthesis of silver nanowires with adjustable diameters", 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

81- Hojaji E., M. Manteghiani, "growth kinetics of sulfur in dilution crystallization from a (sulfur-ethanol-toluene-water) solution", 5<sup>th</sup> International chemical engineering congress and exhibition, Iran, 2008

82- Mohammadi A., M. Manteghian, M. Mirdamadi, M. Motavalian, M. Abdolkarimi, "Modeling water-methane interface in a hydrate reactor", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

83- Abdolkarimi M., M. Manteghian, H. Pahlavanzadeh, A. Mohammadi, "Induction time in reaction crystallization of copper nanoparticles", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

84- Mohammadi A., M. Manteghian, A. Mohammadi, "A numerical solution for 1-D advection with harmonic application of time-space weights", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

85- Abdolkarimi M., M. Manteghian, A. Mohammadi, "Modification of the paraffin precipitation model in crude oil using the cold finger concept", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

86- Mohammadi A., M. Manteghian, M. Mirdamadi, M. Motavalian, M. Abdolkarimi, "Enhancement of methane absorption in water using cyclodextrine", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

87- Tafvizi A., M. Manteghian, M. Omidkhah, M. Noroozi Rad, "The effects of addition of refined phosphogypsum on the properties of cement", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

88- Kolbadinejad, S., M. Manteghian, M. Poorhassani, "Separation of naphthalene from CFD fuel oil through crystallization", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

89- Kolbadinejad, S., M. Manteghian, M. Poorhassani, "Determination of naphthalene growth and nucleation kinetics during crystallization from CFD fuel oil", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

90- Ganji H., M. Manteghian, M. Ahmadi, M. Ayazi, S. Shokri, "Determination of the metastable zone during THF hydrate crystallization", 12<sup>th</sup> chemical engineering congress, Tabriz, 2008

91- Davarnejad R., M. Manteghian, A. Moghaddasi, "Mass transfer study on phosphoric acid transfer between aqueous and organic phases in a spray column", 2<sup>nd</sup> Penang ICYC, Malaysia, 2008

92- Bornae A., M. Manteghian, H. Fatoorechi, "Study and determination of numerical solution of mass transfer in lagoons and hot pools", 1<sup>st</sup> Engineering Conference on Separation Processes, Kerman, 2008

93- Alianee M., M. Manteghian, "Study of kinetics of scorodite reaction kinetics", 1<sup>st</sup> Engineering Conference on Separation Processes, Kerman, 2008

94- Rostamizadeh M., M. Manteghian, "Kinetics of borax decahydrate crystallization", 1<sup>st</sup> Engineering Conference on Separation Processes, Kerman, 2008

95- Ghader S., M. Manteghian, "Chemical synthesis and characterization of truncated silver nanoparticles by a simple and rapid method in aqueous solution", Proc. of the 2<sup>nd</sup> conf. on nanostructures, Kish, 2008

96- Mohammadi A., M. Manteghian, "Effect of cyclodextrine on dissolution of methane in water in 3 bars at 1 to 15°C", 1<sup>st</sup> National Conf. on Production, Storage and Distribution of Petroleum Products, Tehran, 2009

97-Ahmadi H., M. Manteghian, "induction time of methane hydrate formation in the presence of electrolyte solutions of sodium chloride and sodium sulfate", 2<sup>nd</sup> national iranian conference on gas hydrate, Semnan, 2013

## **Journal papers**

- 1-B. Zarenzhad, M. Manteghian, N. S. Tavare, "On the Confluence of Dissolution, Reaction and Precipitation", 1996, Chem. Eng. Sci, Vol 51.
- 2- A. Lashanizadegan, N. S. Tavare, M. Manteghian, M.T. Newsham, Ternary Phase Equilibrium Diagrams for O- and P-Chlorobenzoic Acids and Their Complexes with Piperazine in Methanol, J. Chem. Ing. Data, 2000, 45, 1189-1194.
- 3- M. Manteghian, A. Ebrahimi, "Solubility and growth kinetics of silver nitrate in ethanol", Iranian Journal of Science and Technology, 26 (B2), 2002.
- 4- M. Manteghian, D. Bastani, I. Naser, M. Mohammadzadeh, "A comprehensive empirical correlation to predict the supersolubility and width of the metastable zone in crystallization", Iranian Journal of Chemistry and Chemical Engineering, 22, 2003
- 5- M. Manteghian, "The Fuel Problem in Submarines," Pajooheshiar, 4, 1996.
- 6- M. Manteghian, "Birth of Life in Stars," Pajooheshiar, 10, 1997.
- 7- M. Manteghian, "Nanotechnology, new revolution in science and industry", Jostar, Vol. 12, 2001
- 8- M. Manteghian, "Nanotechnology", Pajoheshyar, Vol. 14, 2001
- 9-M. Manteghian, J. Ahmadpanah, "Determination of the reaction kinetics of production of phosphoric acid", Iranian Journal of Chemical Engineering, Vol. 3, 2002
- 10- Kokabi, M., F. Arabgol, M. Manteghian, "Permanent polymeric composite NdFeB-PEG magnet", Journal of Polymer Science and Technology, Vol. 65 No. 3, 2003
- 11- Manteghian, M., M. Tajdari, "The single stage particle-classifying instruments", Iranian Journal of Chemical Engineering, Vol. 6, 2003, p. 11.
- 12-Manteghian, M., A.. Dehnamaki, "Growth and nucleation kinetics of HMX", Modarres, 10, 2003, 61-69
- 13- Babaluo, A. A., M. Kokabi, M. Manteghian, R.S. Mamoory, "A modified model for alumina membranes formed by gel-casting followed by dip-coating", Journal of the European Ceramic Society, Vol. 24 ,2004, 3779-3787.
- 14- Manteghian, M. Babaluo, A. A, "Determination of equilibrium moisture values and the molecular diffusivity of moisture in porous ammonium nitrate particles", Modares Journal of Engineering, 18, 2004, 1-7
- 15- Manteghian, M. B. Mehrdal, S. Bagherifam, "Investigation of the variations in the properties of the used oil during regeneration", Tahghigh in Petroleum Engineering and Science, 50, 2003, 59-70
- 16- Ganji, H., M. Manteghian, Sadaghiani, " Determination of growth and nucleation kinetics of THF hydrate", Journal of Chemical Engineering of Japan, 39-3, 2006, pp 1-8
- 17-Omidkhah, M., K. Poorabdollah, M. Manteghian, M. Chegini, "Investigation of MTBE concentration and its

diffusion”, Iranian Journal of Chemistry and Chemical Engineering, 2-26, 2007, 35-41

18-Ganji, H., M. Manteghian, H. Sadaghianizadeh, M.R. Omidkhah and H. Rahimi Mofrad, “Effect of different surfactants on methane hydrate formation rate, stability and storage capacity”, Fuel, 86, 2007, 434-441

19-Ghader, S., M. Manteghian, M. Kokabi, R. Sarraf Mamoory “Preparation of Truncated Triangular Silver Nanoparticles by a Simple and Rapid Method in Aqueous Solution”, *Polish J. Chem.*, 81, (2007)

20- Ghader S., M. Manteghian, M. Kokabi, R. Sarraf Mamoory “Induction time of reaction crystallization of silver nanoparticles”, Chem Eng Technol, 2007, 30-8, 1-6

21- Ganji H. , M. Manteghian, H. Rahimi Mofrad, “Effect of mixed compounds on methane hydrate formation and dissociation rates and storage capacity”, Fuel Processing Technology 88 (2007) 891–895

22- Manteghian, M. , P. Noori, H. Pahlavanzadeh, S. Soroosh, “Separation of sulfur compounds in gasoline using carbon nanotubes”, Iranian Journal of Chemistry and Chemical Engineering, 27(1), 2009, 75-82

23- Pahlavanzadeh H., F. Ghaemmaghami, M. Manteghian, “Determination of heat and mass transfer coefficients as functions of the moisture in fluidized bed dryers”, to be published in the Iranian Journal of Chemistry and Chemical Engineering

24- Eltejaee H., M. Manteghian, “ Modeling of methane hydrate decomposition”, Iranian Journal of Chemistry and Chemical Engineering, 28-2, 2010, page 31

25- Shidpour R., M. Manteghian, “The creation of the magnetic and metallic characteristics in low-width MoS<sub>2</sub> nanoribbon (1-D MoS<sub>2</sub>): A DFT study”, Chemical Physics, 360, 2009, 97-105

26- Abdolkarimi M., M. Manteghian, “Induction time in formation of copper nanoparticles”, Jurnal of Nanosains & Nanoteknologi, 2009, 32-37

27- Hojaji H., M. Manteghian, “Production of sulfur nanocrystal through dilution crystallization”, Jurnal of Nanosains & Nanoteknologi, 2009, 19-21

28- Manteghian M., S. Ghader, “Kinetics of primary nanoparticle agglomeration in precipitation of silver”, Chemical Engineering Technology, 5, 2009, 1-6

29- Manteghian M., S. Ghader, “Experimental and modeling study on precipitation kinetics of silver in nano and micron scale”, Polish Journal of Chemistry”, 83, 2009, 625-639

30- Kokabi M., F. Arabgol, M. Manteghian, “Nd<sub>2</sub>Fe<sub>14</sub>B permanent polymeric composite magnets”, Iranian Polymer Journal, 1-14, 2005, 71-79

31- Shidpour, R., M. Manteghian, " A density functional study of strong local magnetism creation on MoS<sub>2</sub> nanoribbon by sulfur vacancy", *Nanoscale*,2(8), 2010, 1429-35

- 32- M. Safaei, R. Sarraf, M. Manteghian, M. Rashidzadeh, "Synthesis and characterization of one-dimensional titanate nanostructures via an alkaline hydrothermal method of a low surface area TiO<sub>2</sub>-Anatase", *Journal of ceramic processing research*, 11(2), 2010, 277-280
- 33- M. Mohammadi, M. Manteghian, M. Mirzaei, "Effect of beta-cyclodextrin on dissolution of methane in water", *Chemical Engineering Research and Design*, 89, 421-427, 2011
- 34- M. Alizadeh, J. Tofiqi, M. Manteghian, F. Mohajeri, " Nanoclays as nano adsorbent for oxidation of H<sub>2</sub>S into elemental sulfur", *Korean Journal of Chemical Engineering*, 28 (5), 1221-1226, 3, 2011
- 35- M. Safaei, R. Sarraf, M. Manteghian, M. Rashidzadeh "A Plackett-Burman design in hydrothermal synthesis of TiO<sub>2</sub>-derived nanotubes", *Journal of Porous Materials*, 17, 2009, 719-726
- 36- M. Hoseininasab, M. Manteghian, M. Vafaei, M. Zare, "A Neuro-Fuzzy model as a Predictive Tool for Vapor-Liquid Equilibrium of Binary Mixtures", *Petroleum science and technology*, 31, 2013, 68-79
- 37- M. Mousavisafavi, M. Manteghian, A. Mohammadi, " The equilibrium conditions, hydrate formation and dissociation rate and storage capacity of ethylene hydrate in presence of 1,4-dioxane", *Chemical Engineering Journal*, 217, 2013, 379-384
- 38- S. Ahmadi, M. Manteghian, H. Kazemian, S. Rohani, "Synthesis of silver nano catalyst by gel-casting using response surface Methodology", *Powder Technology*, 228, 2012, 163-170
- 39- H. Ahmadi, M. Manteghian, "a new algorithm that developed finite difference method for solving Laplace Equation for a plate with 4 different constant temperature boundary conditions", *Research journal of Applied Science, Engineering and Technology*, 4(22), 2012, 4630-4635
- 40- Javad Gholami, Alireza Badiei, Alireza Abbasi, Mehrdad Manteghian, Ghodsi Mohammadi Ziarani, "Direct Oxidation of Benzene to Phenol in Liquid Phase over Nanoporous Silica of Chromium-LUS-1", *Iranica Journal of Energy & Environment* 4 (1) Special Issue on Nanotechnology: 24-27, 2013
- 41- M. Mousavisafavi, M. Manteghian, M. Vafai, " determination of the stability of methane hydrate at various temperatures and pressures", *Iranian Journal of Chemistry and Chemical Engineering*, vol. 30-1, 2013, 63-69
- 42- M. Manteghian, R. Dorosti, A Mohammadi, "Kinetic of Methane Hydrate Formation in Micro- and Nanodroplets", *Asian Journal of Chemistry*, 25-4, 2035-2042, 2013
- 43- Arjang S, M. Manteghian, A. Mohammadi, "Effect of synthesized silver nanoparticles in promoting methane hydrate formation at 4.7M Pa and 5.7 M Pa", *Chemical Engineering Research and Design*, 91, 1050-1054, 2013
- 44- Mohammadi, A., M. Manteghian, "Induction Time of Hydrate formation from Carbon Dioxide-Methane Gas Mixture", to be published in *Petroleum Science and Technology*
- 45- Mohammadi, A., M. Manteghian, A Haghtalab, A H Mohammadi, "Kinetic study of carbon dioxide hydrate formation in presence of silver 4 nanoparticles and SDS" *Chemical Engineering Journal*, 237, 387-395, 2014

- 46- Mohammadi, A., M. Manteghian, M Mirzaei, "Effect of Beta-cyclodextrin on dissolution of methane in water", *Chemical Engineering Research and Design*, 89, 421-427, 2011
- 47- Mohammadi, A., M. Manteghian, M Mousavisafavi, "Solubility of Methane in Water at Presence of  $\beta$ -Cyclodextrin, SDS and Multi Wall Carbon Nanotubes at Low Temperatures", *Petroleum Science and Technology*, 31, 2013, 1085-1091
- 48- Mohammadi, A., M. Manteghian, K A Pirzaman, "Thermodynamic modeling of the dissociation conditions of hydrogen sulfide clathrate hydrate in the presence of aqueous solution of inhibitor(alcohol, salt or ethylene glycol)", to be published in *Chemical Engineering Research and Design*
- 49- Mohammadi, A., M. Manteghian, A H Mohammadi, "Dissociation Data of Semiclathrate Hydrate for the Systems of 2 Tetra-n-butylammonium Fluoride (TBAF) + Methane + Water, TBAF + Carbon Dioxide + Water, and TBAF + Nitrogen + Water", to be published in *Journal of Chemical & Engineering Data*
- 50- Mohammadi, A., M. Manteghian, M Mousavisafavi, "The effect of Multi-walled Carbon Nanotubes on solubility of methane in water" *Petroleum Science and Technology*, 31, 1206-1213, 2013
- 51- Mousavi M. M. Manteghian, M. Vafaei, "Investigation of the stability of methane hydrate in various conditions", *Iranian Journal of Chemistry and Chemical Engineering*, 30(1), 63-70,2011
- 52- Manteghian M., A. Faravar, " Induction time of induced crystallization of potassium chloride nanoparticles", *Journal of Chemical Engineering Research Studies*, 2014, 1(3)
- 53- Tavakolian, S.S. , M. Manteghian, G. Asadi, S. Najarpiraye, S. Shabani, "Deposition of Silver Nanoparticles on surfaces with Innovative Method of Pervaporation and Study of its Effect on Food Pathogens", *Food Science and Industry*, 45(11), 2014
- 54- Abdolkarimi-Mahabadi, Meisam, Mehrdad Manteghian, "Quantitative Separation of Graphene Oxide Nanoribbon by Froth Flotation", *Journal of Dispersion Science and Technology*, 36-7, 2014, 924-931
- 55- Mohammadi, A. Mehrdad Manteghian Amir H., Mohammadi, "Phase Equilibria of Semiclathrate Hydrates for Methane+ Tetra n-Butylammonium Chloride (TBAC), Carbon dioxide+ TBAC, and Nitrogen + TBAC Aqueous Solution Systems", *Fluid Phase Equilibria*, 381, 2014, 102-107
- 56- Ramin Moayed, M. A., Mehrdad Manteghian, "Time Induction Measurement and Identification of Nucleation Mechanism in Chromium Sulfate Nano-Particle Synthesis with Anti Solvent Method in the Presence of Surface Active Substances", *Advances in Natural and Applied Sciences*, 9(4) April 2015, Pages: 43-46
- 57- Tari, F., M. Manteghian, "Microwave-Assisted Synthesis of Molybdenum Oxide Nanoparticles", *Journal of Particle Science and Technology*, 1, 2015, 121-127
- 58- Gholami, J., M. Manteghian, A. Badiei, H. Ueda, M. Javanbakht, "N-Butylamine Functionalized Graphene



Oxide for Detection of Iron(III) by Photoluminescence Quenching”,

59-Heidary F., M. Manteghian, “Synthesis and Study of Properties of Nanoparticle Composites Containing Carbon Nanotubes-Polyaniline-Ferrite Nickel”, *Ceramics Science and Engineering*, 5-2, 2016, 35-46

**Thesis Supervision:**

- a) M.Sc. Students: Over 200 (purification, separation,)
- b) Ph.D. Students: 6 (mainly hydrate and nano studies)

**Research Students Consultation:**

- a) M.Sc.: 4
- b) Ph.D.: 1

**Research project leader:**

- 1- Modeling artificial extraction of oil (contractor: The company of oil research and development)
- 2- Pilot Plant Scale Production of Hydrazine (contractor: Tavanir)
- 2- Production of Coulin Chloride (contractor: Razak co.)
- 3- Production of Food Grade Glycerol (contractor: Razak co.)
- 4- Production of Lab Grade Sodium Chloride (contractor: Research organization)
- 5- Designing  $\text{NH}_4\text{ClO}_4$  Crystallizer (contractor: Defense Ministry)
- 6- Simulation of RDC Tower for production of lubricating oil (contractor: Behran Co.)
- 7- Startup of a Phosphating Unit (contractor: Shetabkar co.)
- 8- Simulation of an Ammonium Nitrate Prilling tower (contractor: Shiraz Petrochemical Complex.)
- 9- Assembling of a Continuous Crystallizer in TMU.
- 10- Purification of Phosphoric Acid.
- 11- Oxidative Coupling of Methane (Present contract with petrochemistry co.)
- 12- Production of silver nanoparticles from photographic wastes (SBDC)

Books author:

M. Manteghian, S. Bakhtiari, A. Zarringalam, "Introduction to the Role of a Fire Laboratory", Center for Research of Building and Housing, 1994 (In Persian)

Chemical Engineering, group of authors, Sanjesh Takmili, 2005

Manteghian M., “Petroleum-Extraction, Properties and Refining”, Donya Publishers, 2009

Book translation:

Research Grants:

Given Lectures:

*a) B.Sc.*

1- Unit Operations

2- Mass Transfer

3- Refining Engineering

4- Fluid Mechanics

5- Reactor Design

6- Design & Economics

7- Stoichiometry

8- Heat Transfer

*b) M.Sc.*

1- Industrial Crystallization

2- Advanced Mass Transfer

3- Advanced Absorption & Extraction

4- Less Common Means of Separation

5- Special Topics

### **Participated workshops:**

#### **Three Colleagues**

**1) Professor** Dr. Zarenejad

Department of Chem. Eng., University of Science & Industry

**2) Professor** Dr. Lashanizadegan

Department of Chem. Eng., Shiraz University

**3) Professor** Dr. Alamdari

Department of Chem. Eng., Shiraz University

### **Patents:**

" Hybrid nano-sorbent", US Patent, A.M. Alizade, A.M. Rashidi, J. Tofighi, S.Sattari ,A. Mohajeri, M. Manteghian,2009

"Hybrid nano-absorber", Iranian Patent, A.M. Alizade, S.Sattari, A.M. Rashidi, J. Tofighi, A.M. Mohajeri, M. Manteghian,1388

دوره سه روزه آموزش چگونگی تصمیم گیری در مورد ساختار مقاله

دوره سه روزه آموزش چکیده نویسی

دوره سه روزه آموزش نحوه جمع آوری اطلاعات موجود در نشریات علمی

دوره سه روزه آموزش نحوه نگارش مقدمه

دوره سه روزه آموزش نحوه نگارش برنامه ریزی آزمایشها

دوره سه روزه آموزش نحوه نگارش شرح آزمایشها

دوره سه روزه آموزش نحوه نگارش شرح مواد و دستگاهها

دوره سه روزه آموزش نحوه نگارش جداول و شکلها

دوره سه روزه آموزش نحوه نگارش تفسیر نتایج

دوره سه روزه آموزش نحوه نگارش نتیجه گیری

دوره سه روزه آموزش نحوه نگارش فهرست واژه ها و واحدها

دوره سه روزه آموزش نحوه نگارش فهرست مراجع

