



Organic Polymer Chemistry Research Laboratory, Department of Chemistry, Faculty of Science Arak University, 38158-879, Shahid Beheshti Ave., Arak, Iran

Fax: +98-861-4173406 , Mobile: +98-918-863-0427

E-mail: k-faghihi@araku.ac.ir



Education:

Ph.D. Organic Polymer Chemistry, Isfahan University of Technology (IUT), Isfahan, Iran. 1995-2000.

M.Sc. Organic Chemistry, University of Tehran, Tehran, Iran, 1989-1992.

B.Sc. Chemistry, University of Tabriz, Tabriz, Iran, 1984-1989.

Professional Experience:

Full Professor (2015)

Associate Professor in Department of Chemistry, Faculty of Science, University of Arak, Arak, Iran (2004-2015).

Assistant Professor, Department of Chemistry, Faculty of Science, University of Arak, Arak, Iran (2000-2004).

Lecturer, Department of Chemistry, Faculty of Science, University of Arak, Arak, Iran, 1992-1995.

Research Associate, Iranian Industrial and Research Company, 2000-2003.

Visiting Professor at Membrane Research Laboratory, Polymer Engineering Department, Zhejiang University, Hangzhou, China, between “20 July 2009 until 20 Sept 2009”.

Postdoctoral Fellow (National Taiwan University of Science and Technology, Chemical Engineering Department, between “1 June 2005 until 1 September 2005”.

Awards:

- 1) The 11th rank among the 1500 candidates in the entrance examinations of M.Sc. in chemistry in Iran, 1989.
- 2) The 1st rank among the 25 candidates in the entrance examinations of Ph.D. in organic chemistry program at the Isfahan University of Technology in Iran, 1995.
- 3) Top Researcher in Science Faculty of Arak University at 2004.
- 4) Top Researcher in Markazi Province at 2004.
- 5) Active Researcher in Chemistry Dept. of Arak University at 2005.
- 6) Active Researcher in Chemistry Dept. of Arak University at 2007.
- 7) Top Researcher in Science Faculty of Arak University at 2011.
- 8) Top Teacher in Chem Dept. of Science Faculty of Arak University at 2014

Research Area

Synthesis and characterization of high performance polymers such as polyimide, polyamide, poly(amide-imide)s and poly(ester-imide)s

Synthesis and characterization of nanocomposite polyimide, polyamide and poly(amide-imide)s

Preparation and characterization polyimide and poly(amide-imide)s membrane

Skills:

Acquired extensive knowledge and skills for designing and carrying out of multi-step organic synthesis in small and large scale.

Acquired extensive knowledge and skills for designing and carrying out of polymer synthesis in small and large scale.

Acquired extensive experience in separation, purification and characterization methods of organic compounds including NMR, FTIR and MS spectroscopy.

Acquired extensive experience in characterization methods of polymer compounds including TGA, DTG, DSC, XRD, TEM and SEM experiments.

Additional professional activities:

Presenting “Organic Chemistry 1, 2, 3” , “ Fundamental of Polymer Chemistry”, “Organic Spectroscopy”, “literature survey” , “Identification and Separation of Organic Compounds” “Physical Organic Chemistry” courses for undergraduate students.

Presenting “Advanced Organic Chemistry”, “Polymer Synthesis” and Organic Synthesis courses for M.Sc. students.

Advanced Polymer Chemistry” and “New Topic in Organic Chemistry” for PhD students.

Selected Articles

1998

- 1- A. H. Dabbagh, S. E. Mallakpour & **Kh. Faghihi**, Elimination Reactions of Secondary and Tertiary Alcohols with Polystyryl Diphenylphosphine in Tetrachloromethane, *Iranian Polymer Journal* 7(3), 47-56, 1998.

2000

- 2- A. H. Dabbagh & **Kh. Faghihi**, Isotope Effect and Kinetics Studies Reaction of Tertiary Alcohol with Triphenylphosphine-Carbon Tetrachloride: Ion Pair or Concerted? *Tetrahedron* 56, 3611-3617, 2000.
- 3- S. E. Mallakpour, A. R. Hajipour & **Kh. Faghihi**, Synthesis of Novel Optically Active Poly(ester-imide)s with Benzophenone Linkages by Microwave Assisted Polycondensation, *Polymer International* 49, 1383-1388, 2000.
- 4- S. E. Mallakpour, A. H. Dabbagh & **Kh. Faghihi**, Synthesis of Novel Optically Active Poly(amide-imide)s with Benzophenone and L-Alanine Moities, *Iranian Polymer Journal* 9(1), 41-48, 2000.

2001

- 5- S. E. Mallakpour, A. R. Hajipour & **Kh. Faghihi**, Microwave Assisted Synthesis of Optically Active Poly(amide-imide)s with Benzophenone and L-Alanine Linkages. *European Polymer Journal* **37**, 119-124, 2001.
- 6- S. E. Mallakpour, A. R. Hajipour, **Kh. Faghihi**, N. Foroughifar & J. Bagheri. Synthesis of Novel Optically Active Poly(amide-imide)s with Tetrahydropyrimidinone and Tetrahydro-2-thioxopyrimidine Moieties by Microwave Assisted Polycondensation. *Journal of Applied Polymer Science* **80**, 13, 2416-2421, 2001.

2002

- 7- **Kh. Faghihi**, Kh. Zamani & S E. Mallakpour, Synthesis and Characterization of Optically Active Poly(amide-imide)s With Hydantoin and Thiohydantoin derivatives in Main Chain. *Iranian Polymer Journal* **11**, 339, 2002.

2003

- 8- **Kh. Faghihi**, Kh. Zamani, A. Mirsamie, R. Sangi & S E. Mallakpour, Microwave-Assisted Synthesis of Novel Optically Active Poly(amide-imide)s With Hydantoin and Thiohydantoin derivatives in Main Chain. *European Polymer Journal*, **39**, 247, 2003.
- 9- **Kh. Faghihi**, N. fouroughifar, M. Hajibeygi & S. Mallakpour, Synthesis and Characterization of Novel Polyamides Containing Azobenzene Unites and Tetrahydropyrimidinone and Tetrahydro-2-thioxopyrimidine Derivatives by Microwave Assisted Polycondensation, *Iranian Polymer Journal* **12**(4), 339-346, 2003.
- 10- **Kh. Faghihi** & M. Hajibeygi, Polyamides containing azobenzene unites and hydantoin derivatives in main chain: Synthesis and characterization, *European Polymer Journal* **39**(12), 2307-2314, 2003.

2004

- 11- **Kh. Faghihi**, Kh. Zamani, A. Mirsamie & S E. Mallakpour, Facile Synthesis of Novel Optically Active Poly(amide-imide)s Containing N,N -(Pyromellitoyl)-bis-L-phenylalanine Diacid Chloride and 5,5-Disubstituted Hydantoin Derivatives Under Microwave Irradiation, *Journal of Applied Polymer Science* **91**(1), 516-524, 2004.
- 12- **Kh. Faghihi**, Kh. Zamani, A. Mirsamie & S E. Mallakpour, Synthesis and characterization of novel optically active poly(amide-imide)s containing N,N -(pyromellitoyl)-bis-L-valine diacid chloride and 5,5-disubstituted hydantoin derivatives under microwave irradiation, *Polymer International* **53**(9), 126-1234, 2004.
- 13- **Kh. Faghihi**, N. fouroughifar & S. Mallakpour, Facile Synthesis of Novel Optically Active Poly(amide-imide)s Derived from N,N'-(Pyromellitoyl)-bis-L-alanine Diacid Chloride, Tetrahydropyrimidinone and Tetrahydro-2-

- thioxopyrimidine by Microwave-Assisted Polycondensation, *Iranian Polymer Journal* **13**(2), 93-99, 2004.
- 14- **Kh. Faghihi** & M. Hajibeygi, Synthesis and Properties of New Poly(amide-imide)s Containing Trimellitic Rings and Hydantoin Moieties in Main Chain Under Microwave Irradiation, *Journal of Applied Polymer Science* **92**, 3447-3453, 2004.
- 15- **Kh. Faghihi**, Microwave Assisted Rapid Synthesis of Novel Optically Active Poly(amide-imide)s Based on N-Trimellitylimido-L-Leucine Diacid Chloride and Hydantoin Derivatives, *Macromolecular Research* **12**(3), 258-262, 2004.

2005

- 16- **Kh. Faghihi** & M. Hajibeygi, New poly(amide-imide)s containing tetrahydropyrimidinone, tetrahydro-2-thioxopyrimidine and trimellitic rings in main chain: synthesis and characterization, *Macromolecular Research* **13**(1), 14-18, 2005.
- 17- **Kh. Faghihi** & A. Mirsamie, Rapid synthesis of novel optically active poly(amide-imide)s derived from N,N -(pyromellitoyl)-bis-L-alanine diacid chloride and hydantoin derivatives under microwave irradiation, *Chinese Journal of Polymer Science* **23**(1), 63-69, 2005.
- 18- **Kh. Faghihi** & H. Naghavi, Synthesis and Properties of New Poly(amide-imide)s Containig Bis(4-trimellitimidophenyl) sulfone and Hydantoin Moities in Main Chain, *Journal of Applied Polymer Science* **96**, 1776-1782, 2005.
- 19- **Kh. Faghihi**, New Optically Active Poly(amide-imide)s Containig N-Trimellitylimido-L-Phenyl Alanine Diacid Chloride and Hydantoin Moities Under Microwave Irradiation: Synthesis and Properties, *Polymer Journal* **37**(6), 449-452, 2005.

2006

- 20- **Kh. Faghihi**, Synthesis and Characterization of New Flame-Retardant Poly(amide-imide)s Containing Phosphine Oxide and Hydantoin Moieties in the Main Chain, *Journal of Applied Polymer Science* **102**, 5062-5071, 2006.
- 21- **Kh. Faghihi** & Kh. Zamani, Synthesis and Properties of Novel Flame-Retardant Poly(amide-imide)s Containing Phosphine Oxide Moieties in Main Chain by Microwave Irradiation, *Journal of Applied Polymer Science* **101**, 4263-4269, 2006.

2007

- 22- S. Mallakpour, F. Rafiemanzelat & **Kh. Faghihi** , Synthesis and characterization of new self colored thermally stable poly(amide-ether-urethane)s based on an azo dye and different diisocyanates, *Dyes and Pigments*, **74**, 713-722, 2007.
- 23- D. J. Liaw, F. C. Chang, J. H. Liu, K. L. Wang, **Kh. Faghihi**, K. R. Lee & J. Y. Lai. Synthesis and Characterization of Novel Thermally Stable and Optically Active Poly(amide-imide)s Derived from N,N-(4,4-Diphthaloyl)-bis-L-leucine Diacid and Aromatic Diamines, *Journal of Applied Polymer Science* **104**, 3096-3102, 2007.

- 24- D. J. Liaw, F. C. Chang, J. H. Liu, K. L. Wang, **Kh. Faghihi**, K. R. Huang, K. R. Lee & J. Y. Lai. Novel thermally stable and chiral poly(amide-imide)s bearing from N,N-(4,40-diphthaloyl)-bis-L-isoleucine diacid: Synthesis and characterization, *Polymer Degradation and Stability* **92** 323-329, 2007.

2008

- 25- **Kh. Faghihi** & H. Naghavi, Synthesis and Characterization of New Polyamides Containing p-Phenylenediacryloyl Moieties in the Main Chain, *Journal of Applied Polymer Science* **108**, 1136-1141, 2008.
- 26- **Kh. Faghihi**, New Optically Active Poly(amide-imide)s Based on N,N-(Pyromellitoyl)-bis-L-amino acid and 1,3-Bis(4-aminophenoxy) propane: Synthesis and Characterization, *Journal of Applied Polymer Science* **109**, 74-81, 2008.
- 27- **Kh. Faghihi** & Z. Mozaffari, New Polyamides Based on 2,5-Bis[(4-carboxyanilino) carbonyl] pyridine and Aromatic Diamines: Synthesis and Characterization, *Journal of Applied Polymer Science* **108**, 1152-1157, 2008.

2009

- 28- H. Nasr Isfahani, **Kh. Faghihi** & N. Valikhani, Synthesis and Characterization of New Polyamides Derived from 1,3-Bis(4-Carboxy phenoxy) propane and Aromatic Diamine, *Journal of Applied Polymer Science* **111**, 1769-1774, 2009.
- 29- H. Nasr Isfahani, **Kh. Faghihi** & Z. Mozaffari, New Photosensitive Poly(amide-imide)s Containing Chalcone Moiety and Hydantoin Derivatives in the Main Chain: Synthesis and Characterization, *Journal of Applied Polymer Science* **112**, 1097-1103, 2009.
- 30- H. Nasr Isfahani & **Kh. Faghihi**, New thermally stable polyesters based on 2,5-pyridinedicarbonyl dichloride and aromatic diols: Synthesis and characterization, *Chinese Chemical Letters* **20**, 885-888, 2009.
- 31- **Khalil Faghihi**, M. Hajibeygi & M. Shabanian, Synthesis and Properties Novel Flame-Retardant and Thermally Stable Poly(amide-imide)s from N,N'-(bicyclo[2,2,2]oct-7-ene-tetracarboxylic)-bis-L-Amino Acids and Phosphine Oxide Moiety by Two Different Methods, *Macromolecular Research* **17**(10), 739-745, 2009.
- 32- **Kh. Faghihi**, Mohsen Hajibeygi & Meisam Shabanian, Novel Flame-retardant and Thermally Stable Poly(amide-imide)s Based on Bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic Diimide and Phosphine Oxide in the Main Chain: Synthesis and Characterization, *Journal of Chinese Chemical Society* **56**, 609-618, 2009.
- 33- **Kh. Faghihi**, M. Absalar & M. Hajibeygi, Optically Active and New Thermally Stable Poly(amide-imide)s Containing N,N'-(bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic)-bis-L-alanine and Aromatic Diamines: Synthesis and Characterization, *Journal of Brazilian Chemical Society*, **20**(10), 1931-1938, 2009.
- 34- **Kh. Faghihi**, M. Shabanian & M. Hajibeygi, optically active and organosoluble poly(amide-imide)s derived from N,N'-(Pyromellitoyl)bis-L-histidine and various diamines: Synthesis and characterization, *Macromolecular Research*, **17**, 912-918, 2009.
- 35- **Kh. Faghihi**, M. Shabanian & M. Hajibeygi, New Optically Active Poly(amide-imide)s from N,N'-(bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic)-bis-L-valine

- diacid and Aromatic Diamines: Synthesis and Properties, *e-polymer*, **142**, 1-10, 2009.
- 36- Ali Reza Karimi, Flora Behzadi, **Khalil Faghihi**, Pseudo five-component synthesis of bis- -acyloxy- -diketo amides from diimide-dicarboxylic acids, *Mol Divers* **13**, 379-383, 2009.
 - 37- **Khalil Faghihi**, Meisam Shabanian and Shahrbanoo Kazemi, Thermally Stable and Optically Active New Organosoluble_Copolyamides based on N-Phthaloyl-L-glutamic Acid in the_Main Chain Synthesis and Characterization, *High Temperature Materials and Processes*, **28** (1), 97-103, 2009.
 - 38- **Khalil Faghihi**, Mohsen Hajibeygi and Meisam Shabanian, Synthesis and Characterization of New Copoly(amide-imide)s Based on Bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic diimide and Azobenzene Group in the Main Chain, *High Temperature Materials and Processes*, **28** (6), 379-386, 2009.

2010

- 39- **Khalil Faghihi**, Meisam Shabanian, Mohsen Hajibeygi, Yasser Mohammadi, Synthesis and Properties of New Thermally Stable and Optically Active Organosoluble Poly(ether-amide-imide)s Containing Bicyclo Segment in the Main Chain, *Journal of Applied Polymer Science*, **117**, 1184-1192, 2010.
- 40- **Khalil Faghihi** and Mohsen Hajibeygi, OPTICALLY ACTIVE AND FLAME-RETARDANT POLY(AMIDE-IMIDE)S BASED ON PHOSPHINE OXIDE MOIETY AND N,N-(PYROMELLITOYL)BIS-L-AMINOACID IN THE MAIN CHAIN: SYNTHESIS AND CHARACTERIZATION, *Chinese Journal of Polymer Science*, **28**(4), 517-525, 2010.
- 41- **Khalil Faghihi**, Meisam Shabanian and Atena Izadkhah, SYNTHESIS AND CHARACTERIZATION OF OPTICALLY ACTIVE POLYAMIDES BASED ON 2-(1,3-ISOINDOLINEDIONE-2-YL)GLUTARIC ACID BY DIRECT POLYCONDENSATION, *Chinese Journal of Polymer Science*, **28**(4), 589-596, 2010.
- 42- **Khalil Faghihi** and Hassan Moghanian, SYNTHESIS AND CHARACTERIZATION OF OPTICALLY ACTIVE POLY(AMIDE-IMIDE)S CONTAINING PHOTSENSITIVE CHALCONE UNITS IN THE MAIN CHAIN, *Chinese Journal of Polymer Science* **28**(5), 695-704, 2010.
- 43- **Khalil Faghihi**, Akram Feyzi and Hossein Nasr Isfahani, Synthesis and Characterization of New Optically Active Poly(amide-imide)s Based on N,N-(bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic)-bis-L-2-aminobutyric acid, *Designed Monomers and Polymers*, **13**, 131-142, 2010.
- 44- **Khalil Faghihi** and Hassan Moghanian, Synthesis and Characterization of New Optically Active Poly(amide-imide)s Based on N,N-(Pyromellitoyl)-bis-L-Amino Acids and 1,3,4-Oxadiazole Moieties, *Designed Monomers and Polymers*, **13**, 207-220, 2010.
- 45- **Khalil Faghihi**, Mohsen Hajibeygi, Samira Bayat, Preparation and Characterization of New Optically Active Poly(amideimide)s from N,N'-(bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetra carboxylic)-bis-L-isoleucine and Aromatic Diamines, *Journal of Macromolecular Science, Part A: Pure and Applied Chemistry*, **47**, 350-357, 2010.
- 46- **Khalil Faghihi**, Mohsen Hajibeygi, Meisam Shabanian, Photosensitive and Optically Active Poly(amide-imide)s Based on N,N-(pyromellitoyl)-bis-L-amino acid and Dibenzalacetone Moiety in the Main_Chain: Synthesis and Characterization, *Journal of Macromolecular Science R, Part A: Pure and Applied Chemistry*, **47**, 144-153, 2010.

- 47- **Kh. Faghihi** & M. Gholizadeh, Synthesis and Characterization of New Poly(ester-imide)s Based on 1,3-bis[4,4'-bis(trimellitimido) phenyl]-2-propenone and Aromatic Diols, *Macromolecular Research*, **18(1)**, 2-7, 2010.
- 48- **Khalil Faghihi**, Mohsen Hajibeygi, and Meisam Shabanian, Novel Thermally Stable Poly(amide-imide)s Containing Dibenzalacetone Moiety in the Main Chain: Synthesis and Characterization, *Macromolecular Research*, **18(5)**, 421-428, 2010.
- 49- **Khalil Faghihi**, Meisam Shabanian, and Narjes Emamdadi, Synthesis, Characterization, and Thermal Properties of New Organosoluble Poly(ester-imide)s Containing Ether Group, *Macromolecular Research*, **18(8)**, 753-758, 2010.
- 50- **Khalil Faghihi** and Hassan Moghanian, Synthesis and characterization of new optically active poly(amide-imide)s containing 1,3,4-oxadiazole moiety in the main chain, *Polym. Bull.* **65**, 319-332, 2010.
- 51- **Kh. Faghihi**, M. Hajibeygi, M. Shabanian, New photosensitive and optically active organo-soluble poly(amide-imide)s from N,N'-(bicyclo[2,2,2]oct-7-ene-tetracarboxylic)-bis-L-amino acids and 1,5-bis(4-aminophenyl)penta-1,4-dien-3-one: synthesis and characterization, *Journal of Polymer Research*, **17**, 379-390, 2010.
- 52- **Kh. Faghihi**, M. Hajibeygi & M. Shabanian, Synthesis and properties of new photosensitive and chiral poly(amide-imide)s based on bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic diimide and dibenzalacetone moiety in the main chain, *Polymer International*, **59**, 218-226, 2010.
- 53- **Kh. Faghihi**, M. Hajibeygi & M. Shabanian, Synthesis and characterization of new optically active and organosoluble poly(ester-imide)s based on bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxylic diimide by direct polycondensation, *Science China*, **53(4)** 898-904, 2010.
- 54- **KHALIL Faghihi** , MEISAM Shabanian, Synthesis and characterization of optically active and organosoluble poly(amide-imide)s containing imidazole rings as pendent groups by direct polycondensation, *Science China*, **53(3)** 581-587, 2010.
- 55- **KH. FAGHIHI**, M. **HAJIBEYGI**, New flame retardant and optically active poly(amide-imide)s based on N-trimellitylimido-L-amino acid and phosphine oxide moiety in the main chain: synthesis and characterization, *Materials Science-Poland*, **28(2)**, 545-556 (2010).
- 56- **Khalil Faghihi**, Meisam Shabanian, Mohsen Hajibeygi, **Polyimide-silver nanocomposite** containing phosphine oxide moieties in the main chain: Synthesis and properties, *Chinese Chemical Letters* , **21**, 1387-1390, 2010.
- 57- **Khalil Faghihi**, Mohsen Hajibeygi, Mehdi norbakhsh, SYNTHESIS AND CHARACTERIZATION OF NEW ORGANO-SOLUBLE POLY(AMIDE-IMIDE)S BASED ON 1,2-BIS[4-(TRIMELLITIMIDO)PHENOXY]ETHANE AND AROMATIC DIAMINES, *Chinese Journal of Polymer Science*, **28(6)**, 941-949, 2010.

2011

- 58- **KHALIL FAGHIHI**, FATEMEH SHABANI, MEISAM SHABANIAN, Synthesis of New Poly(ether-imide) Nanocomposite Containing Bicyclo Segments by Solution Intercalation, *Journal of Macromolecular Science R, Part A: Pure and Applied Chemistry*, **48**, 381-386, 2011.

- 59- **Khalil Faghihi** and Meisam Shabanian, Optical and Thermal Behaviors of Polyamide-Layered Silicate Nanocomposites Based on 4,4'-Azodibenzoic Acid by Solution Intercalation Technique, *High Temperature Materials and Processes*, **1-2** 77-80, 2011.
- 60- **Khalil Faghihi**, Meisam Shabanian & Nasim Valikhani, New Poly(Amide-Imide)s Based on 1,3-Bis[4,4'-(Trimellitimido) Phenoxy] Propane and Hydantoin Derivatives: Synthesis and Properties, *Designed Monomers and Polymers*, **14**, 109-119, 2011.
- 61- **Khalil Faghihi** & Meisam Shabanian, Optical and Thermal Behaviors of Polyamide-Layered Silicate Nanocomposites Based on 4,4'-Azodibenzoic Acid by Solution Intercalation Technique, *High Temp. Mater. Proc.*, **1-2**, 77-80, 2011.
- 62- **Khalil Faghihi**, Meisam Shabanian & Fatemeh Shabani, Synthesis and properties of new thermally stable poly(amide-imide)s containing flexible ether moieties, *J Polym Res* **18**, 637-644, 2011.
- 63- **Khalil Faghihi**, Fatemeh Shabani & Meisam Shabanian, Synthesis of New Poly(ether-imide) Nanocomposite Containing Bicyclo Segments by Solution Intercalation, *Journal of Macromolecular Science, Part A, Pure and Applied Chemistry* **48**, 381-386, 2011.
- 64- **Khalil Faghihi** & Mohsen Hajibeygi, Synthesis and Characterization of New Thermally Stable Poly(amide-imide)s Based on Bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetra carboxylic Diimide and Aromatic Diamines, *Polymer Science, Ser. B*, **53**, 137-143, 2011.
- 65- Mohsen Hajibeygi, **Khalil Faghihi**, and Meisam Shabanian, Preparation and Characterization of New Photosensitive and Optically Active Poly(Amide-Imide)s from N-Trimellitylimido-L-Amino Acid and Dibenzalacetone Moiety in the Main Chain, *Polymer Science, Ser. B*, **53 (9-10)** 518-527, 2011.
- 66- **Khalil Faghihi**, Meisam Shabanian, Mohsen Hajibeygi & Yasser Mohammadi, Synthesis and characterization of new poly(ether-ester-imide)s as ageneration of soluble and thermally stable polymers, *Polym. Bull.* **66**, 37-49, 2011.
- 67- Mohsen Hajibeygi, **Khalil Faghihi** & Meisam Shabanian, Synthesis and Characterization of Novel Heat Resistance Poly(amide-imide)s from N,N-[2,5-bis(4-aminobenzylidene) cyclopentanone] Bistrimellitimide Acid and Various, *Journal of Applied Polymer Science*, **121**, 2877-2885, 2011.

2012

- 68- **Khalil Faghihi**, Zeinab Mirzakhani and Meisam Shabanian, Preparation, Characterization and Surface Morphology of New Thermally Stable Poly(Ether-Imide)/Organoclay Nanocomposites, *Designed Monomers and Polymers*, **15**, 137-145, 2012.
- 69- **Khalil Faghihi** and Meisam Shabanian, Synthesis and Characterization of Polyimide-Silver Nanocomposite Containing Chalcone Moieties in the Main Chain by UV radiation, *Journal of THERMOPLASTIC COMPOSITE MATERIALS*, **25**, 89-99, 2012.
- 70- Meisam Shabanian, **Khalil Faghihi** & Fatemeh Shabani, Clay-reinforced semi-aromatic polyether-amide nanocomposites containing phosphine oxide moieties: synthesis and characterization, *Polym. Bull.* **68**, 375-390, 2012.

2013

- 71- Akram Feyzi, **Khalil Faghihi** and Abdol Ali Zolanvari, Synthesis and Characterization of New Polyimide/Organoclay Nanocomposites Derived From 3,3',4,4'-Biphenyltetracarboxylic Dianhydride and 1,2-Bis(4-Aminophenoxy)Ethane, *High Temp. Mater. Proc.* **32(2): 171-178, 2013.**

2014

- 72- Meisam Shabanian, **Khalil Faghihi**, Ahmad Raeisi, Mansooreh Varvani farahani, Hossein Ali Khonakdar & Udo Wagenknecht, New poly(ether-imide)/MWCNT nanocomposite Flammability, thermal and electrical properties, *J Therm Anal Calorim* **117, 293-299, 2014.**
- 73- Meisam Shabanian, Zeinab Mirzakhani, Nemat Basaki, Hossein Ali Khonakdar, **Khalil Faghihi**, Faegheh Hoshyargar & Udo Wagenknecht, Flammability and thermal properties of novel semi aromatic polyamide/organoclay nanocomposite, *Thermochimica Acta* **585, 63-70, 2014.**
- 74-

2015

- 75- Meisam Shabanian, Mehdi Khoobi, Farideh Hemati, Hossein Ali Khonakdar, **Khalil Faghihi**, Udo Wagenknecht, Seyed esmaeil Sadat ebrahimi, Abbas Shafiee, Effects of polyethyleneimine-functionalized MCM-41 on flame retardancy and thermal stability of polyvinyl alcohol, *Particuology* **19, 14-21, 2015.**
- 76- **Khalil Faghihi**, Farideh Hemati, Zeinab Mirzakhani & Meisam Shabanian, Synthesis of New PI/MWCNT Containing Sulfone Groups via InSitu Polymerization: Study on Thermal, Electrical, and Optical Properties, *International Journal of Polymeric Materials and Polymeric Biomaterials* **64,406-410, 2015.**
- 77- Zeinab Mirzakhani, **Khalil Faghihi**, Abolfazl Barati & Hamid Reza Momeni, Synthesis and characterization of fast-swelling porous super absorbent hydrogel based on starch as a hemostatic agent, Journal of Biomaterials Science, *Polymer Edition*, **26 (18)1439-1451, 2015.**
- 78- **Khalil Faghihi**, Ahmad Raeisi, Mahdi Amini, Meisam Shabanian & Ali Reza Karimi, Sulfonic Acid-Functionalized Fe₃O₄ Reinforced Soluble Polyimide: Synthesis and Properties, *Polymer-Plastic Technology and Engineering*, **55(3), 259-267, 2015.**
- 79- Mohsen Hajibeygi, **Khalil Faghihi**, Majid Khodaei-Tehrani & Zeinab Mirzakhani Thermally Stable and Organo-soluble Polyamides Containing Triazine Rings and Ether Linkages in the Main Chain: Synthesis and Characterization, *Chinese Journal of Polymer Science*, **33 (1) 109-117, 2015.**

2016

- 80- Meisam Shabanian, Hossein Ardeshtir, Sepideh Haji-Ali, Hassan Moghanian, Mohsen Hajibeygi, **Khalil Faghihi**, Hossein Ali Khonakdar, Hamid Salimi, Efficient poly(methyl-ether-imide)/LDH nanocomposite derived from a methyl rich bisphenol: From synthesis to properties, *Applied Clay Science*, **2016** (**in publish**).
- 81- **Khalil Faghihi**, Ahmad Raeisi, Elham Honardoost and Meisam Shabanian, Synthesis, characterization and antibacterial activity of new organo-soluble poly(ether-amide)/silver nanocomposites, *Advances in Polymer Technology* **2016** **publish**).