

## *Curriculum Vitae*

### **Mir Karim Razavi Aghjeh**

Professor of Polymer Engineering  
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#### **Personal Information**

Name: Mir Karim  
Family Name: Razavi Aghjeh  
Birth Date: September 23, 1973  
Language: Turkish (Mother Tong), Persian (National), English

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#### **Educational Background**

- **Ph.D. Polymer Engineering**, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran. (1998-2004)  
Supervisor: **Prof. Hossein Nazockdast**  
Thesis Title: **Reactive Modification of Polyethylene in Twin Screw Extruders via Free Radical Melt-grafting of Maleic Anhydride**
- **M.Sc. Polymer Engineering**, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran. (1996-1998)  
Supervisor: **Prof. Hossein Nazockdast**  
Thesis Title: **Study on Environmental Stress Cracking Resistance of Polyethylene/Polyethylene Blends.**
- **B.Sc. Polymer Engineering**, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran. (1992-1996)

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#### **Employment History**

- Tenured Professor, Sahand University of Technology, **2015-Present**
- Tenured Associate Professor, Sahand University of Technology, **2012-2015**
- Associate Professor, Sahand University of Technology, **2007-2012**
- Assistant Professor, Sahand University of Technology, **2004-2007**

## Research Interests

- Polymer Processing, Rheology and Morphology of Polymeric Multi-Component Systems, Structure-Properties Relationship in Multi-Component Polymeric Materials, Polymeric Nanocomposites, Reactive Modification of Polymers, Polymer Recycling, Rubber Toughening, Fracture in Polymers
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## Awards

- The first rank in M.Sc. entrance exam (1996)
  - The first rank in Ph.D. entrance exam (1998)
  - Teaching Excellence award in Sahand University of Technology (2013)
  - Research Excellence award in Sahand University of Technology (2015)
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## Publications

### Patents

- S. Salahshoor, **M.K. Razavi Aghjeh\***, B. Dehghani. “Production of polyethylene wax from cross-linked polyethylene. *Iranian patent*, Approved, 139750740003008197, 2019.
- **M.K. Razavi Aghjeh\***, “Ultra-Tough Poly (Lactic Acid) Based Polymeric Material and Preparation Method Thereof”. Provisional *US-Patent* has been filed and it is ready to file the Non-Provisional US-Patent.

### Journal Papers

1. B. Afsari, **M.K. Razavi Aghjeh\*** and M. Hasanpour. “Evolution of Morphology and Morphology Stability in PP/PA6/EPDM-g-MA Reactive Ternary Blends Using Viscoelastic Measurements”. *Rheologica Acta*, 59, 399–414, 2020.
2. S. Hajibabazadeh, **M.K. Razavi Aghjeh\***, M. Mehrabi Mazidi, “Stiffness-toughness balance in PP/EPDM/SiO<sub>2</sub> ternary blend-nanocomposites: The role of microstructural evolution”. *Journal of Composite Materials*, <https://doi.org/10.1177/0021998320948125>, 2020.
3. S. Hajibabazadeh, **M.K. Razavi Aghjeh\***, M. Palahang. “Study on the fracture toughness and deformation micro-mechanisms of PP/EPDM/SiO<sub>2</sub> ternary blend-nanocomposites”. *Journal of Composite Materials*, [doi.org/10.1177/0021998319863475](https://doi.org/10.1177/0021998319863475), 2020.
4. S. Moghanlou, M. Khamseh, **M.K. Razavi Aghjeh** and B. Pourabbas\*. “Influence of Chain Extension and Blending on Crystallinity and Morphological Behavior of Recycled-PET/Ethylene Vinyl Acetate Blends”. *Journal of Polymers and the Environment*, [Doi: https://doi.org/10.1007/s10924-020-01699-7](https://doi.org/10.1007/s10924-020-01699-7), 2020.
5. M.A. Moeeni, M. Salami Hosseini, M.K. Razavi Aghjeh and M. Mostafaiyan. “Numerical study on the effect of rheological parameters on the droplet deformation process in Newtonian and non-Newtonian two-phase systems using extended finite element method”. *Progress in Computational Fluid Dynamics, an International Journal*. <https://doi.org/10.1504/PCFD.2020.107270>, 2020.

6. O. Rafeie, **M.K. Razavi Aghjeh\***, A. Tavakoli, M. Salami-Kalajahi, A. Jameie-Oskooie, M. Ghayoumi. "Study on crystalline structure of poly(vinylidene fluoride)/ polyethylene/graphene blend-nanocomposites". *Polymer Composites*, 40 (11) 1-14, **2019**.
7. M. Hasanpour, **M.K. Razavi Aghjeh**, M. Mehrabi Mazidi, B. Afsari. "Effect of morphology alteration on mechanical properties and fracture toughness of polypropylene/polyamide 6/ethylene polypropylene diene monomer graft maleic anhydride (PP/PA6/EPDM-g-MA) reactive ternary blends". *Polymer Bulletin*, 79, 1-28, 106018, **2019**.
8. M. Hasanpour, M. Mehrabi Mazidi, **M.K. Razavi Aghjeh**. "The effect of rubber functionality on the phase morphology, mechanical performance and toughening mechanisms of highly toughened PP/PA6/EPDM ternary blends". *Polymer Testing* 79, 106018, **2019**.
9. S. Hajibabazadeh, M. Palahang, and **MK Razavi Aghjeh\***. "Effect of morphology development on mechanical properties and fracture behavior of PP/EPDM/SiO<sub>2</sub> blend-nanocomposites". *Polymer Testing* 73 (4) 124-134, **2019**.
10. M. Mehrabi Mazid, **M.K. Razavi Aghjeh\*** and M. Hassanpour. "Fracture Resistance and Micromechanical Deformations in PP/PA6/EPDM Ternary Blends: Effect of Rubber Functionality, Dispersion State and Loading Conditions". *Engineering Fracture Mechanics*, 191 (1), 65-81, **2018**.
11. O. Rafei, **M.K. Razavi Aghjeh\***, A. Tavakoli, M. Salami Kalajahi and A. Jameie Oskooie. "Conductive Polyvinylidene-fluoride/Polyethylene/Graphene Blend-Nanocomposites; Correlation between Rheology, Morphology and Electrical Conductivity". *Journal of Applied Polymer Science*, 135 (23), 46333 (1-13), **2018**.
12. R. Berahman, **M.K. Razavi Aghjeh\***, M. Mehrabi Mazidi "Relaxation Behavior of Core-Shell Particles in PP/PMMA/PS Ternary Blends: The Effects of Composition, Viscosity Ratio and Temperature". *International Polymer Processing*, 33 (4), 553-563, **2018**.
13. F. Abbasi, A. Tavakoli and **M.K. Razavi Aghjeh**. "Rheology, morphology, and mechanical properties of reactive compatibilized polypropylene/polystyrene blends via Friedel–Crafts alkylation reaction in the presence of clay" *Journal of Vinyl and Additive Technology*, 24 (1) 18-26, **2018**.
14. M. Khodabandelou, **M.K. Razavi Aghjeh\***, H. A. Khonakdar and M. Mehrabi Mazidi. "Effect of Localization of Carbon Nanotubes on Fracture Behavior of Un-vulcanized and Dynamically Vulcanized PP/EPDM/MWCNT Blend-Nanocomposites". *Composite Science and Technology*, 149, 134-148, **2017**.
15. A. Jameie Oskooie, **M.K. Razavi Aghjeh\***, O. Rafeie and A. Tavakoli. "Composition and compatibilization induced morphology alteration in PVDF/LLDPE blends: correlation between rheology and morphology". *Journal of Polymer Research*, 24(2), 21-31, **2017**. 24:21.
16. M. Entezam, **M.K. Razavi Aghjeh**, M. Ghaffari. "Electron beam irradiation induced compatibilization of immiscible polyethylene/ethylene vinyl acetate (PE/EVA) blends: Mechanical properties and morphology stability". *Radiation Physics and Chemistry*, 131 22–27, **2017**.

17. E. Sharifzadeh, M. Salami-Kalajahi, M. Salami Hosseini, **M.K. Razavi Aghjeh**. “Defining the characteristics of spherical Janus particles by investigating the behavior of their corresponding particles at the oil/water interface in a Pickering emulsion”. *Journal of Dispersion Science and Technology* 38(7), 985-991, 2017.
18. E. Sharifzadeh, M. Salami-Kalajahi, M. Salami Hosseini, **M.K. Razavi Aghjeh**. “Synthesis of silica Janus nanoparticles by buoyancy effect-induced desymmetrization process and their placement at the PS/PMMA interface”. *Colloid and Polymer Science*, 295(1), 25-36, 2017.
19. R. Berahman, **M.K. Razavi Aghjeh\***, M. Mehrabi Mazidi, S. Omrani. “Evolution of shell formation process in PP/PMMA/PS ternary blends: correlation between the melt rheology and phase morphology”. *Journal of Polymer Research*, 23(11), 227-237, 2016.
20. E. Sharifzadeh, M. Salami-Kalajahi, M. Salami Hosseini, **M.K. Razavi Aghjeh**. “A temperature-controlled method to produce Janus nanoparticles using high internal interface systems: experimental and theoretical approaches”. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 506, 56-62, 2016.
21. M. Mohammadiroudbari, A. Tavakoli, **M.K. Razavi Aghjeh** and M. Rahi. “Effect of nanoclay on the morphology of polyethylene modified bitumen”. *Construction and Building Materials*, 116, 245-251, 2016.
22. M. Khodabandelou, **M.K. Razavi Aghjeh\***. “Impact behavior of CNT-filled PP/EPDM blends: effect of dynamic vulcanization and PP-g-MA compatibilizer”. *Polymer Bulletin*, 73(6), 1607-1626, 2016.
23. B. Dehghanzad, **M.K. Razavi Aghjeh\***, O. Rafeie, A. Tavakoli and A. Jameie Oskooie. “Synthesis and Characterization of Graphene and Functionalized Graphene via Chemical and Thermal Treatment Methods”. *RSC Advances*, 6(5), 3578-3585, 2016.
24. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\***, H.A. Khonakdar, U. Reuter. “Structure-Property Relationships in Super-Toughened Polypropylene-Based Ternary Blends of Core-Shell Morphology”. *RSC Advances*, 6(2), 1508-1526, 2016.
25. P. Eskandari, M. Mehrabi Mazidi and **M.K. Razavi Aghjeh\***. “In Situ Reactive Compatibilization of PP/ABS Blends via Friedel-Crafts Alkylation Reaction”. *Macromolecular Research*, 24(1), 14-24, 2016.
26. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\***, M. Khodabandelou. “Comments on “Fracture study of the composite using essential work of fracture method: PP-SEBS-g-MA/E1 clay” [Materials and Design 53 (2014) 741–748]”. *Materials and Design*, 86, 184-186, 2015.
27. A. Ghaempour, A. Tavakoli1, **M.K. Razavi Aghjeh**, and M. Mohammadi Roodbari. “Morphology, Microstructure and Physico-Mechanical Properties of Pasargad Bitumen, Modified by Ethylene-Vinyl Acetate Copolymer (EVA) and Nanoclay”. *Iranian Journal of Polymer Science and Technology (Persian)*, 28 (4), 289-299, 2015.
28. A. Pourabed, A. Tavakoli, B. Pourabbas and **M.K. Razavi Aghjeh**. “Preparation of polyethylene-graft-clay nanocomposites using Friedel–Crafts alkylation reaction as a new method” *Iranian Polymer Journal*, 24 (9), 705-714, 2015.

29. M. Mehrabi Mazidi and **M.K. Razavi Aghjeh\***. "Effects of blend composition and compatibilization on the melt rheology and phase morphology of binary and ternary PP/PA6/EPDM blends" *Polymer Bulletin*, 72(8), 1975–2000, **2015**.
30. M. Khodabandelou, **M.K. Razavi Aghjeh\*** and M. Mehrabi Mazidi. "Fracture toughness and failure mechanisms in unvulcanized and dynamically vulcanized PP/EPDM/MWCNT blend-nanocomposites" *RSC Advances*, 5(87), 70817–70831, **2015**.
31. M. Mehrabi Mazidi and **M.K. Razavi Aghjeh\***. "Synergistic toughening effects of dispersed components in P/PA6/EPDM ternary blends; quantitative analysis of the fracture toughness via the essential work of fracture (EWF) methodology" *RSC Advances*, 5(58), 47183–47198, **2015**.
32. Y. Javadi, M. Salami Hosseini and **M.K. Razavi Aghjeh**. "The effect of carbon black and HALS hybrid systems on the UV stability of high-density polyethylene (HDPE)" *Iranian Polymer Journal*, 23(10), 793-799, **2014**.
33. M. Torabi Angaji, R. Rafiee, M. Hemmati, M. Abdollahi and **M.K. Razavi Aghjeh**. "Parametric Studies on the Grafting of Poly(methyl methacrylate) onto Organophilic Montmorillonite Using Silylated Clay Platelets" *Journal of Macromolecular Science, Part B: Physics*, 53, 957–974, **2014**.
34. M. Mehrabi Mazidi, F. Hosseini, G. Basseri and **M.K. Razavi Aghjeh**. "Relationship among microstructure, linear viscoelastic behavior and mechanical properties of SBS triblock copolymer-compatibilized PP/SAN blend". *Polymer Bulletin*, 71, 465-486, **2014**.
35. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\*** and F. Abbasi. "Fractographic Analysis of the Crack Resistance of Styrene–Acrylonitrile/Polybutadiene-g-Styrene–Acrylonitrile Blends as Evaluated by the Essential Work of Fracture Method". *Journal of Applied Polymer Science*, 131 (7), 40072, **2014**.
36. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\*** and F. Abbasi. "Unstable Fracture Behavior of Rubber Toughened Poly(Styrene-co-Acrylonitrile)". *Journal of Macromolecular Science, Part B: Physics*, 52, 1143-1167, **2013**.
37. M. Rakhshani, M.M. Kamrannejad, A.A. Babaluo, M. Rezaei and **M.K. Razavi Aghjeh**. "Thermal degradation behavior and kinetic studies of polyacrylamide gel in TiO<sub>2</sub> nanoparticles synthesis". *Iranian Polymer Journal*, 21, 821–828, **2012**.
38. Kh. Shahbazi, **M.K. Razavi Aghjeh\***, F. Abbasi, M. Partovi Meran and M. Mehrabi Mazidi. "Rheology, morphology and tensile properties of reactive compatibilized polyethylene/polystyrene blends via Friedel–Crafts alkylation reaction". *Polymer Bulletin*, 69, 241-259, **2012**.
39. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\*** and F. Abbasi. "Evaluation of fracture toughness of ABS polymers via the essential work of fracture (EWF) method". *Journal of Materials Science*, 47(17), 6375-6386, **2012**.
40. M. Mehrabi Mazidi, **M.K. Razavi Aghjeh\*** and F. Abbasi. "Relationship between microscopic deformations and macroscopic mechanical response of SAN/PB-g-SAN blends via interparticle distance concept". *Journal of Polymer Research*, 19, 9928-9942, **2012**.

41. R. Rafiee, A. A. Babalou, A. Nilchi and **M.K. Razavi Aghjeh**. "Parametric Studies on the Synthesis of Amidoximated Adsorbent Resins". *Journal of Applied Polymer Science*, 126, 1069–1076, **2012**.
42. S. Malmir, **M.K. Razavi Aghjeh\***, M. Hemmati, R. Ahmadi Tehrani. "Relationship between Morphology and Rheology of PA/PE/Clay Blend Nanocomposites. I. PA Matrix". *Journal of Applied Polymer Science*, 125, E503–E514, **2012**.
43. M. Davari, **M.K. Razavi Aghjeh\*** and S.M. Seraji. "Relationship between the Cell Structure and Mechanical Properties of Chemically Crosslinked Polyethylene Foams". *Journal of Applied Polymer Science*, 124, 2789–2797, **2012**.
44. S.M. Seraji, **M.K. Razavi Aghjeh\***, M. Davari, M. Salami Hosseini and Sh. Khelgati. "Effect of Clay Dispersion on the Cell Structure of LDPE/Clay Nanocomposite Foams". *Polymer Composites*, 32 (7), 1095-1105, **2011**.
45. M. Akhfash Ardestani, A.A. Babaluo, M. Peyravi, **M.K. Razavi Aghjeh** and E. Jannatdoost. "Fabrication of PEBA/ceramic nanocomposite membranes in gas sweetening". *Desalination*, 250, 1140–1143, **2010**.
46. M. Peyravi, A. A. Babaluo, M. Akhfash Ardestani, **M.K. Razavi Aghjeh**, S.R. Pishghadam, P. Hadi. "Study on the Synthesis of Poly(ether-block-amide) Copolymer Based on Nylon6 and Poly(ethylene oxide) with Various Block Lengths". *Journal of Applied Polymer Science*, 118, 1211–1218, **2010**.
47. R. Rezanavaz, **M.K. Razavi Aghjeh\***, A.A. Babaluo. "Rheology, Morphology and Thermal Behavior of HDPE/Clay Nanocomposites". *Polymer Composites*, 31(6), 1028-1036, **2010**.
48. M. Peyravi, M. Akhfash Ardestani, A. A. Babaluo, **M.K. Razavi Aghjeh**, S.R. Pishghadam and E. Jannatdoost. "Synthesis and characterization of nanostructured-segmented block copolyetheramide based on nylon6 and polyethylene oxide". *Chinese Journal of Polymer Science*, 28 (4), 597–605, **2010**.
49. A. Shenavar, F. Abbasi, A. Zamani and **M.K. Razavi Aghjeh**. "Flow and Mechanical Properties of Carbon Black Filled Acrylonitrile-Butadiene-Styrene (ABS)". *Journal of thermoplastic composite material*, 22, 753-766, **2009**.
50. E. Esmailnezhad, M. Rezaei and **M.K. Razavi Aghjeh**. "The Effect of Alternative Blowing Agents on Microstructure and Mechanical Characteristics of Rigid Polyurethane Foam" *Iranian Polymer Journal*, 18 (7), 569-579, **2009**.
51. M. Khodabandelou, **M.K. Razavi Aghjeh\*** and M. Rezaei. "Fracture behavior and environmental stress cracking resistance (ESCR) of HIPS/PE blends and the effect of compatibilization on their properties". *Engineering Fracture Mechanics*. 76, 2856–2867, **2009**.
52. **M.K. Razavi Aghjeh\***, M. Khodabandelou and M. Khezrefaridi. "Rheology and Morphology of High Impact Polystyrene/Polyethylene Blends and the Effect of Compatibilization on their Properties. *Journal of Applied Polymer Science*, 114, 2235–2245, **2009**.

53. M. Tahmasebpour, A.A. Babaluo and **M.K. Razavi Aghjeh**. "Synthesis of zirconia nanopowders from various zirconium salts via polyacrylamide gel method". *Journal of the European Ceramic Society*, 28, 773-778, **2008**.
54. S. Ebrahimi, J.S. Moghaddas and **M.K. Razavi Aghjeh**. "Study on thermal cracking behavior of petroleum residue" *Fuel*, 87, 1623-1627, **2008**.
55. M. Faker, **M.K. Razavi Aghjeh**\*, M. Ghaffari and S. A. Seyyedi. "Rheology, Morphology and Mechanical Properties of Polyethylene/Ethylene Vinyl Acetate Copolymer (PE/EVA) Blends" *European Polymer Journal*, 44, 1834-1842, **2008**.
56. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour. "Parameters Affecting the Free Radical Melt Grafting of Maleic Anhydride onto Linear Low Density Polyethylene in an Internal Mixer". *Journal of Applied Polymer Science*, 99 (1), 141-149, **2006**.
57. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour. "Determination of the Residence Time Distribution in Twin Screw Extruders via Free Radical Modification of PE". *International Polymer Processing*, 19 (4), 2101-2110, **2004**.

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### *Conference Papers*

1. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Functionalization of PE with MA in an internal Mixer" ISPST **2003** Tehran, Iran.
2. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Study on Parameters Affecting the Functionalization of PE Using the MA in an Internal Mixer" Polymer Processing Society (19<sup>th</sup> conference), **2003**, Athene, Greece.
3. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Experimental Determination of the Residence Time Distribution in Twin Screw Extruders" Polymer Processing Society (20<sup>th</sup> conference), **2004**, Akron, Ohio, USA.
4. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Study on Parameters Affecting the Melt Grafting of MA on to Linear Low-Density Polyethylene in Twin Screw Extruder" Polymer Processing Society (20<sup>th</sup> conference), **2004**, Akron, Ohio, USA.
5. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Rheological Behavior of MA modified Polyethylene" 14<sup>th</sup> Conference of Rheology, **2004**, Seoul, Korea.
6. **M.K. Razavi Aghjeh**, H. Nazockdast and H. Assempour; "Effect of Feeding Order on MA functionalization of PE" IUPAC **2004**, Paris France.
7. **M.K. Razavi Aghjeh**, and H. Nazockdast; "Evolution of Peroxide Modification of PE; Structural Changes and Rheological Study" Polymer Processing Society, (21<sup>th</sup> conference), **2005**, Lipzic Germany.

8. M. Khezrfaridi and **M.K. Razavi Aghjeh** "*Rheology, Morphology and Mechanical Properties of HIPS/PE Blends and the Effect of Compatibilization on their Properties*". Polymer Processing Society (PPS), Perotaria, South Africa, **2006**.
9. N.Faragi, **M.K. Razavi Aghjeh** and M.Salehi "*Flow Modeling in Spiral Mandrel Dies; the Effect of Groove's Geometry on Flow Distribution and Pressure Drop*". Polymer Processing Society (PPS), Perotaria, South Africa, **2006**.
10. M. Faker, **M.K. Razavi Aghjeh** and M. Gaffari. "*Effect of the High-Energy Electron Beam Irradiation on the Morphology and Mechanical Properties of PE/EVA Blends*". 7<sup>th</sup> International Symposium on Ionizing Radiation and Polymers (IRAP 2006), Antalya Turkey, **2006**.
11. M. Faker, **M.K. Razavi Aghjeh** and M. Gaffari "*Rheology, morphology and mechanical properties of polyethylene/ethylene vinyl acetate copolymer (PE/EVA) blends*". Macro **2006**, Punie, India
12. Kh. Shahbazi, **M.K. Razavi Aghjeh**, F. Abbasi and M.Tavakol. "*Reactive Compatibilization of Polyethylene/Polystyrene (PE/PS) Blends via Friedel-Crafts Alkylation; Rheology and Morphology*". Macro **2006**, Punie, India.
13. R. Rezanavaz, **M.K. Razavi Aghjeh**, A.A. Babalou and H. Farahzadi. "*Parameters Affecting the Morphology, Rheology and Mechanical Properties of HDPE/Clay Nanocomposites*". International Polymer Processing, Conference (24<sup>th</sup> conference), Salerno, Italy, **2008**.
14. M. Khodabandelou and **M.K. Razavi Aghjeh**. "*Relationship between the Morphology and Mechanical Properties of Compatibilized and Un-compatibilized HIPS/PE Blends*". International Polymer Processing, Conference (24<sup>th</sup> conference), Salerno, Italy, **2008**.
15. M. Faker, **M.K. Razavi Aghjeh** and M. Gaffari. "*Rheology, morphology and mechanical properties of polyethylene/ethylene vinyl acetate copolymer blends and effect of electron beam radiation on their properties*". International Polymer Processing, Conference (23<sup>th</sup> conference) Shanghai, China, **2007**.
16. M. Thamasebpour, A. A. Babalou, M. Rezaei and **M. K. Razavi Aghjeh**. "Thermal analysis of acrylamide polymeric network used for nanopowders preparation". 11<sup>th</sup> Iranian Chemical Engineering Congress, ۲۰۰۶.
17. R. Rafiee A.A. Babalou, A. Nilchi and **M.K.Razavi Aghjeh**. "Effective Parameters on the Amidoximation of Macroreticular Chelating AN-DVB Resins Prepared via Suspension Polymerization". Macro 2006, Punie, India, ۲۰۰۶.
18. M. Khezarfaridi, **M.K.Razavi Aghjeh** and M. Khodabandelou. "Rheology and Morphology of HIPS/PE Blends and Effect of Compatibilization on their Properties". International Polymer Processing Conference (23<sup>th</sup> conference) Shanghai, China, **2007**.
19. **M.K.Razavi Aghjeh** and H. Nazockdast. "Reactive Modification of Polyethylene with Maleic Anhydride (MA) in a Co-rotating Twin-Screw Extruder". 5<sup>th</sup> International Seminar on Polymer Science and Technology (ISPST 2007) Tehran Iran **2007**.



20. **M.K. Razavi Aghjeh**, Kh. Shahbazi and F. Abbasi. "Reactive Compatibilization of Polyethylene/Polystyrene (PE/PS) Blends via Friedel-Crafts Alkylation Reaction". 5<sup>th</sup> International Seminar on Polymer Science and Technology (ISPST 2007) Tehran Iran **2007**.
21. M. Khodabandelou, **M.K. Razavi Aghjeh**. "Fracture Behaviour and Environmental Stress Cracking Resistance (ESCR) of HIPS/PE Blends and the Effect of Compatibilization on their Properties". 5<sup>th</sup> International Conference on Fracture of Polymers, Composites and Adhesives (5<sup>th</sup> ESIS TC4) Less Diablerets, Switzerland **2008**.
22. R. Rezanavaz, **M.K. Razavi Aghjeh** and A.A. Babalou. "Relationship between rheology, morphology and mechanical properties of HDPE/clay nanocomposites". Macro 2008 Taipei, Taiwan **2008**.
23. S.A. Seyyedi and **M.K. Razavi Aghjeh**. "Mechanical Properties and Heat Shrinkability of Peroxide Crosslinked LDPE/EVA Blends". Macro 2008 Taipei, Taiwan **2008**.
24. E. Esmailnegad, M. Rezaie and **M.K. Razavi Aghjeh**. "Alternative Ozone Friendly Blowing Agents to CFC's in Rigid Polyurethane Foams: Compressive Strength, Creep and Stress Relaxation Behavior". Macro 2008 Taipei, Taiwan **2008**.
25. A. Nilchi, R. Rafiee, A.A. Babaluo, **M.K. Razavi Aghjeh**. "Ion Exchange of Macroreticular Chelating Resins Containing Amidoxime Group: Diluent, Hydrophilic Agent and Alkaline Treatment Effects". 8<sup>th</sup> International Seminar on Polymer Science and Technology (ISPST 2007), Tehran, Iran, **2007**.
26. R. Rafiee, A.A. Babaluo, A. Nilchi, **M.K. Razavi Aghjeh** "Parametric Studies on the Swelling Behaviour of the Amidoxime Resins via Experimental Design Taguchi Method". 8<sup>th</sup> International Seminar on Polymer Science and Technology (ISPST 2007), Tehran, Iran, **2007**.
27. M. Sharif, **M.K. Razavi Aghjeh** and M. Mahmoodian. "Relationship between the Morphology and Rheology of PE/PP/PS Ternary Blends International Polymer Processing Conference, Goa, India **2009**.
28. M. Mahmoodian, **M.K. Razavi Aghjeh**, F. Abbasi and M. Sharif. "Reactive Compatibilization of PP/PS Blends via Friedel-Crafts Alkylation Reaction". International Polymer Processing Conference, Goa, India **2009**.
29. R. Rezanavaz, **M.K. Razavi Aghjeh** and A.A. Babalou. "Relationship between the rheology and morphology of PE/clay nanocomposites" International Conference on Nanotechnology and Nano Science (ICNN2009), Tabriz, Iran, **2009**.
30. A. Mehravaran, **M.K. Razavi Aghjeh**. "Relationship between Rheology and Morphology of LDPE/EVA/Clay Nanocomposite Blends". 9<sup>th</sup> International Seminar on Polymer Science and Technology, Iran Tehran (ISPST 2009), Tehran, Iran, **2009**.
31. M. Seraji, **M. K. Razavi Aghjeh** and M. Davari. "Effect of compatibilizer on the cell structure of LDPE/Clay nanocomposite foams 9<sup>th</sup> International Seminar on Polymer Science and Technology, Iran Tehran (ISPST 2009), Tehran, Iran, **2009**.
32. M. Peyravi, A.A. Babaluo, M. Akhfash Ardestani, **M.K. Razavi Aghjeh**. "Block length effect on the properties of the synthesized copolyetheramides based on nylon6 and poly (ethylene oxide)". "9<sup>th</sup>

International Seminar on Polymer Science and Technology, Iran Tehran (ISPST 2009), Tehran, Iran, **2009**.

33. B. Rakhshani, A. A. Babaluo, M. M. Kamrannejad, M. Rezaei, **M.K. Razavi Aghjeh**. “Thermal degradation behavior of polyacrylamide gel” 9<sup>th</sup> International Seminar on Polymer Science and Technology, Iran Tehran, (ISPST 2009), Tehran, Iran, **2009**.
34. A. Mehravaran, **M. K. Razavi Aghjeh**. “Application of Rheological Analysis in Morphological Characterization of Clay Filled Polyethylene/Polyethylene Vinyl Acetate Blend Nanocomposites. “Polymer Processing Society 26<sup>th</sup> Regional Meeting PPS-26 IST Istanbul (Turkey) October 20-23, **2010**.
35. M. Hossein Khanali, **M. K. Razavi Aghjeh** and B. Pourabbas. “Rheology and Morphology of ABS/Clay Nanocomposites Prepared via Melt Intercalation Method”. Polymer Processing Society 26<sup>th</sup> Regional Meeting PPS-26 IST Istanbul (Turkey) October 20-23, **2010**.
36. M. Seraji, **M. K. Razavi Aghjeh**, M. Davari. “Cell Structure, Mechanical and Thermal Properties of Polyethylene/Clay Nanocomposite Foams”. Polymer Processing Society 26<sup>th</sup> Regional Meeting PPS-26 IST Istanbul (Turkey) October 20-23, **2010**.
37. A. Rakhshani, A. Babalou, **M. K. Razavi Aghjeh**. Nanocomposite of poly (vinyl chloride)/Titanium dioxide: mechanical and morphological properties”. Polymer Processing Society 26<sup>th</sup> Regional Meeting PPS-26 IST Istanbul (Turkey) October 20-23, **2010**.
38. M. Mehrabi Mazidi, **M. K. Razavi Aghjeh**, F. Abbasi. “Study on Fracture Behavior of ABS Polymer Blends via Essential Work of Fracture (EWF) Method”. 6<sup>th</sup> International conference on fracture of polymers, composites and adhesives. Les Diablerets, Switzerland September 14-17, **2011**.
39. M. Khodabandelou, **M. K. Razavi Aghjeh**. “Environmental Fracture Resistance (EFR) of HIPS and HIPS/PE Blends”. 6<sup>th</sup> International conference on fracture of polymers, composites and adhesives. Les Diablerets, Switzerland September 14-17, **2011**.
40. S. Malmir, **M. K. Razavi Aghjeh**, M. Hemmati. “Application of Rheology on Evaluating of the Morphology of PA/PE/Clay Blend Nanocomposites. “Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran November 14-17, **2011**.
41. M.H. Khanali, **M. K. Razavi Aghjeh**, B. Pourabbas. “Study on Clay Dispersion in ABS/Clay Nanocomposites Using Linear Viscoelastic Properties”. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, **2011**.
42. Sh. Khelgati, **M. K. Razavi Aghjeh**, S.M. Seraji. “Effect of Nanoclay on Different Properties of PE and PE/EVA Blend Nanocomposite Foams”. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, **2011**.
43. M. Torabi Angaji, R. Rafiee, M. Hemmati, M. Abdollahi, **M.K. Razavi Aghjeh**. “Silylation of Organoclay (Cloisite 30B) with trifunction trimethoxysilyl propyl methacrylate”. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, **2011**.

44. Investigation of the affecting parameters on the morphology of PVDF microporous membranes using Taguchi experimental design Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, **2011**.
  45. The effect of linear low-density polyethylene (LLDPE) molecular weight on the property of microporous membrane formation via thermally induced phase separation. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran November 14-17, **2011**.
  46. A. Mehravaran, **M. K. Razavi Aghjeh**. “Linear and Non-linear Viscoelastic Properties of PE/EVA Blend Nanocomposites”. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, **2011**.
  47. The effect of PEG concentration and coagulation bath composition on the morphology of microporous PSf membrane prepared via NIPS method Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran, November 14-17, 2011.
  48. M. Partovi, **M. K. Razavi Aghjeh**, F. Abbasi, M. Mehrabi Mazidi. “Study on Rheology and Mechanical Properties of In Situ Compatibilized PE/PP/PS Ternary Polymer Blends via Friedel-Crafts Alkylation Reaction”. Polymer Processing Society 27<sup>th</sup> Regional Meeting PPS-27 Kish Island, Iran November 14-17, **2011**.
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### **Courses Taught**

- Heat Transfer (B.Sc.)
  - Plastic Engineering (B.Sc.)
  - Rheology of Polymers (B.Sc. & M.Sc.)
  - Polymer Synthesis (B.Sc.)
  - Polymer Characterization (B.Sc.)
  - Advanced Polymer Processing (M.Sc. & Ph.D.)
  - Physical and Mechanical Properties of Polymers (B.Sc.)
  - Polymer Blends (M.Sc.)
  - Advanced Polymerization Reaction Engineering (M.Sc.)
  - Advanced Chemical Reaction Engineering (M.Sc.)
  - Engineering Properties and Fracture in Polymers (Ph.D.), ready to start,
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### **Working Experiences**

- Polyethylene pipes production and consumption monitoring group, Amirkabir University, Tehran, Iran (**1996-1999**)
- Product and quality control manager of polyethylene pipe production lines, Abresan Co., Zanjan, Iran (**1999-2000**).

- Design, standardization and quality control of automotive parts and accessories, Saipa Co., Tehran, Iran (**2000-2003**).
  - Sales and after-sales service manager, Pouya Polymer Tehran Co. (Producer of engineering compounds and color masterbatches), Tehran, Iran (**2003-2004**).
  - Product development consultant, Pouya Polymer Tehran Co. (Producer of engineering compounds and color masterbatches), Tehran, Iran (**2004-2010**).
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### **Research and Industrial Projects**

- Development of PE/PE compounds with high environmental stress cracking resistance, suitable for production of irrigation pipes, funded by Agriculture Ministry, Tehran, Iran. **1996-1998**
- Reactive compatibilization of PE/PS and PP/PS blends via Friedel-Crafts alkylation reaction, funded by Sahand University of Technology, Tabriz, Iran. **2005-2007**
- Synthesis and characterization of PE/Clay nanocomposites, funded by Koosha Polymer Co., Tabriz, Iran. **2008-2010**
- Development of HIPS based compounds with high ESCR suitable for production of inner parts of refrigerators, funded by Tabriz Petrochemical Co., Tabriz, Iran. **2007-2009**
- Modification of thermal and storage stability of polymer modified bitumen using nanofillers, funded by Pasargad Oil Co., Tabriz, Iran. **2012-2013**
- Simultaneous toughening and stiffening of the polypropylene based compounds, funded by Sahand University of Technology, Tabriz, Iran. **2013-2017**
- Microstructure, mechanical properties and fracture behavior of PP/EPDM/SiO<sub>2</sub> blend nanocomposites, funded by Sahand University of Technology, Tabriz, Iran. **2017-2019**
- Production of highly resistive bitumen and bituseal steel pipe coatings against planet root infiltration, funded by Gas Co. East Azarbaijan, Tabriz, Iran. **2015-2018**
- Design and production of UV and fire resistive compounds based on PA to be used in sealant part of gas razor valve, funded by Gas Co. East Azarbaijan, Tabriz, Iran. **2018-2020**