

# DR. TAHIR JAMIL

**Office:** Chairman, Department of Polymer Engineering & Technology, University of the Punjab, Lahore, Pakistan  
**Home:** 143-B, DHA, EME-Sector, Canal Bank Road, Lahore, Pakistan  
**Phone:** (092)-42-99230807; **Cell:** (092)-301-432-2955; **Email:** [tahirj4@yahoo.com](mailto:tahirj4@yahoo.com)  
**Nationality:** PAKISTAN/USA

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## EDUCATION

**Doctor of Philosophy:** Polymer Physical Chemistry, State University of New York, Albany, NY, USA 1986  
**Master of Philosophy:** Physical Chemistry, Quaid-I-Azam University, Islamabad, Pakistan. 1980  
**Master of Science:** Physical Chemistry, Agriculture University, Faisalabad, Pakistan. 1977

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## SUMMARY:

An accomplished teacher and researcher with extensive academic and industrial experience

- Innovative teaching methods in polymer science and engineering.
- Accomplished researcher in Polymer synthesis & characterization, rheology, processing, membranes and composite materials
- Accomplished academic and research advisor

## HIGHLIGHTS:

- Established Department of Polymer Engineering and Technology.
- Established Ph.D and M.Phil degree program in the Department of Polymer Engineering and Technology.
- Established diploma and MS degree program in the Department of Textile Engineering and Technology.
- Established Polymer and material research laboratories with Rs. 100 million grants from the Higher education commission and University of the Punjab.
- Established collaborative inter-university academic and research activities.
- Established university-industry problem solving liaison.

## TEACHING INTEREST:

- Planning, developing and using effective teaching materials and methods to assist students in the area of polymer and material science and engineering.
- Planning and designing projects based on polymers and materials.

## TEACHING COURSES:

- Polymer Engineering
- Advanced Polymer Technologies
- Polymer Synthesis and Characterization
- Colloidal Phenomena
- Polymer Membrane Separation Processes
- Polymer Laboratory Techniques
- Polymer Rheology and Processing
- Viscoelasticity

## RESEARCH INTEREST:

- Application of analytical techniques for macromolecules and composite materials.
- Studies on the dynamics, separation, synthesis & characterization, rheology, and structure/property relationship of polymers, biopolymers, colloids and materials.
- Product development in the area of rubber, paint, gas/gas and liquid/liquid separation, and biomaterials.

## CURRICULUM DEVELOPMENT:

- Member, Technical Review Committee of the Punjab Higher Education Commission (PHEC), Pakistan.
- Curriculum Development for MPhil and Ph.D programs offered by the Department of Polymer Engineering & Technology. University of the Punjab, Lahore



- **PI: US\$ 0.49 million** (2015-2017): From HEC/USA, Research Collaboration between Pakistan and the United States on the Development of Innovative Technical Textiles and Medical Textile Products
- **PI: Rs. 250,000** grant from PU (2015-2016), for the “Fabrication of electrospun fibrous materials from indigenously extracted chitosan and poly (vinyl alcohol) (PVA).”
- **PI: Rs. 8.13million** funding from HEC (2015-2017), for the “Synthesis and Characterization of amphiphilic triblock polyurethane copolymers to mimic bio-membranes.”
- **Project Director** (2009-2013): Implementing, **Rs. 52.982 million**, HEC funded project for “Establishing Industrial Research Laboratories for Material Synthesis and Characterization.”
- **Co-PI: Rs. 1.89 million** funding (2010-2012), from HEC, for the “Synthesis and Characterization of Polyurethane Acrylate Copolymers.”
- **Project Director** (2007-2011): HEC awarded **Rs. 38.75 million** for establishing “Polymer Synthesis, Characterization, Rheology and Processing Laboratories.”
- **PI: Rs. 1.0 million** grant (2006-Present), from HEC, for establishing a “Foreign Faculty Research Group Laboratory.”
- **PI: Rs. 250,000** grant from PU (2012-Present), for the “Synthesis & Characterization of Aluminum Oxide/Cellulose Acetate/PEG Hybrid Membrane for the Separation of CO<sub>2</sub> from Natural Gas Streams.”

## **CAREER HISTORY AND ACCOMPLISHMENTS:**

**Chairman, Department of Polymer Engineering & Technology (10/2010 – Present)**  
**Chairman, Department of Textile Engineering & Technology (10/2013 – Present)**  
**University of the Punjab, Lahore, Pakistan**

- Established Department of Polymer Engineering & Technology in University of the Punjab.
- Started First session (2011) of M.Phil Polymer Technology program in the Department of Polymer Engineering & Technology.
- Started First session (2014) of Ph.D Polymer Technology program in the Department of Polymer Engineering & Technology.
- Developed curriculum for post graduate programs in Polymer Engineering & Technology.
- Teaching Advance Chemical Thermodynamics, Chemical Kinetics, Polymer Chemistry, Polymer Synthesis & Characterization, Polymer Rheology & Processing and Polymer Laboratory Techniques courses to graduate and post graduate students. .
- Co-PI: Rs. **1.89 million** funding (2010-2012), from HEC, for the “Synthesis and Characterization of Polyurethane Acrylate Copolymers.”

**Foreign Faculty Professor, Institute of Chemical Engineering & Technology (02/2006 – 10/2010)**  
**University of the Punjab, Lahore, Pakistan**

- Taught Advance Chemical Thermodynamics, Chemical Kinetics, Polymer Chemistry, Polymer Synthesis & Characterization, Polymer Rheology & Processing and Polymer Laboratory Techniques courses to graduate and post graduate students.
- Supervising research activities of undergraduate, graduate and post graduate students on polymer and material synthesis, characterization and application.
- Project Director (2009-2011): Implementing, **Rs. 52.982 Million**, HEC funded project for establishing industrial research laboratories for material synthesis and characterization.
- Project Director (2007-2009): Successfully completely implemented, **Rs. 38.75 Million**, HEC funded project for establishing polymer synthesis, characterization, rheology and processing laboratories.
- Project Director (2006): **Rs. 1.0 Million**, an HEC funded project for establishing new laboratory infrastructure.

**Foreign Faculty Professor, Center for Chemical Engineering & Material Science (10/2005 – 01/2006)**  
**National University of Science & Technology, Islamabad, Pakistan**

- Research program development for polymers and composite materials.
- Curriculum development for post graduate program in Chemical Engineering and Material Science.

**Advisor/Researcher, Chemical Research Division, Research & Technology Center (02/1998- 05/ 2005)**  
**Saudi Basic Industrial Corporation (SABIC), Riyadh, Saudi Arabia**

- Analytical method development for polymer and material analysis.

- Characterization of polymers, catalyst, and chemicals by FT- NMR, Gel Permeation Chromatography (GPC), High Pressure Liquid Chromatography (HPLC), Thermal analysis, and FT-IR techniques.
- Conducted research and communicated findings with multi-discipline team of engineers and scientists. Provided technical support to customers in the problem solving.
- Written and trained manpower for Standard Operating Procedures and quality assurance Procedures for ISO-17025.

**Consultant, Ford Motors, Dearborn, MI USA**

**(02/1995 – 12/1997)**

- Research, development and support of medical application software for data analysis.
- Development of software in COBOL and C for IBM-PC and IBM-mainframe application.

**Research Associate, Macromolecular Group, Department of Chemistry**

**Louisiana State University, Baton Rouge, LA USA**

**(10/1990 - 02/1995)**

- Studied dynamics and thermodynamic properties of polymers and colloids in binary and composite fluids.
- Investigated light scattering and fluorescence studies of lytic peptides, micelles and dendrimers in binary solutions. Studied rheology of polymer solutions and gels.

**Senior Scientific Officer, DTD**

**Pakistan Atomic Energy Commission, Islamabad, Pakistan**

**(06/1989 - 09/1990)**

- Synthesized and characterized a variety of fluorinated vinyl polymers by emulsion polymerization.
- Synthesized polymeric foams (polyurethane & polystyrene) of various densities for a wide range of special applications. Developed methodologies for coating metal surfaces by chemically resistant polymers using solution and powder coating techniques.

**Research Associate, Macromolecular Science**

**Case Western Reserve University, Cleveland, OH USA**

**(08/1986 - 08/1988)**

- Understanding the effects of specific intermolecular interactions on morphology and properties of blends of semicrystalline and piezoelectric polymer with amorphous polymers by ESR and fluorescence spectroscopy.
- Studied dynamics and thermodynamic properties of polymers and colloids in binary solutions and in composite fluids by dynamic light scattering.

**Research Assistant, Department of Chemistry**

**State University of New York, Albany, NY USA**

**(01/1984 - 07/1986)**

- Studied the dynamics of polyelectrolyte, DNA, in concentrated solutions and gels under a pulsed electric field. The technique enhances the resolution power of gel electrophoresis.
- Developed theory to explain the relaxation processes and their relationship with molecular weight in pulsed field gel electrophoresis.

**Teaching Assistant, Department of Chemistry**

**State University of New York, Albany, NY USA**

**(01/1982 - 01/1984)**

- Responsible for introductory and general chemistry laboratory classes where short lectures were given and experiments were supervised
- Proctored examinations and evaluation was performed

**MEMBERSHIP:**

1. American Association for Science & Technology.
2. HEC National Curriculum Committee for Chemistry
3. Pakistan Chemical Society
4. Member of Editorial Board of *Journal of Faculty of Engineering & Technology*.
5. Member Academic Council, National Textile University, Faisalabad.

## PUBLICATIONS (IMPACT FACTOR (IF) = 142.012)

1. Synthesis and characterization of novel gamma irradiated chitosan based pH sensitive hydrogels crosslinked with glycerol for controlled release of drug. Sadaf Hafeez, Atif Islam, Muhammad Shafiq, Saba Bahzad, Shahzad Maqsood Khan, **Tahir Jamil**, M. Makshoof Athar, and Muhammad Imtiaz Shafeeq (**To be submitted**)
2. Electrospun nanofibrous scaffolds materials from  $\gamma$ -irradiated chitosan and PVA for biomedical applications. Atif Islam, Tariq Yasin, Nafisa Gull, Shahzad Maqsood Khan, Muhammad Azeem Munawar, Aneela Sabir, Muhammad Shafiq, **Tahir Jamil**, and Muhammad Hamid Raza. **Submitted in Iranian Journal of Chemistry and Chemical Engineering (2016)**
3. High performance and chlorine resistant PVA/DGEBA crosslinked TFN-RO membrane infused with F127/ZnO-NPs using natural sea salt for desalination. Aneela Sabir, Wail Falath, Karl I Jacob, Muhammad Shafiq, Nafisa Gul, Atif Islam, Amir Shafeeq, Muhammad Taqi Zahid Butt, and **Tahir Jamil Submitted in Journal of the Taiwan institute of chemical engineers (2016)**
4. Synthesis, characterization and application studies of polyurethane acrylate thermoset coatings: Effect of hard segment. Misbah Sultan, Sadia Atta, Atif Islam, **Tahir Jamil**, Haq Bhatti, Ismat Bibi, Nafisa Gull. **Submitted in Korean Journal of Chemical Engineering (2016)**
5. Hyperbranched polyethyleneimine a polycation induced zwitterionic membranes for improved fouling resistance and high RO performance. Aneela Sabir, Wail Falath, Karl I Jacob, Muhammad Shafiq, Muhammad Azeem Munawar, Atif Islam, Nafisa Gull, Muhammad Taqi Zahid Butt, Khairuddin Sanullah, **Tahir Jamil. Submitted in Membrane (2016)**
6. Fabrication and characterization of novel polyester/glassfiber/carbon black hybrid laminates: A study of mechanical and thermal behavior. Fahad Jamshed, Adnan Ahmad, Muhammad Adrees, Shahzad Maqsood Khan, Muhammad Shafiq, Tabinda Riaz, **Tahir Jamil**, and Tousif Hussain **Submitted in Composites Science and Technology (2016)**
7. Tough hydrogel scaffolds based on biocompatible polymers: Effect of poly (vinyl alcohol) and silane concentration. Atif Islam, Tariq Yasin, Nafisa Gul, Aneela Sabir, Muhammad A Munawar, Shahzad Maqsood Khan, Muhammad Shafiq, **Tahir Jamil**, and Muhammad H Raza. **Submitted in Polymer (2016)**
8. Fabrication of Eco-Friendly Pigment Printed Textiles by Reducing Formaldehyde Contents. Sidra Saleemi and **Tahir Jamil. Submitted in J. Natural Fibers (2015).**
9. Novel green nano composites films fabricated by indigenously synthesized graphene oxide and chitosan. Younus H Khana, Atif Islam, Afsheen Sarwar, Nafisa Gull, Shahzad M Khan, Muhammad A Munawar, Saba Zia, Aneela Sabir, Muhammad Shafiq, and **Tahir Jamil. Submitted in Carbohydrate Polymers Under Review (2016)**
10. Cellulose acetate/Polyethylene glycol-600 self-sterilized composite membranes modified by in-situ reduction of silver nitrate. Adnan Ahmad, Fahad Jamshed, Tabinda Riaz, Sabad-e-Gul, Sidra Waheed, Aneela Sabir, Adnan Alhathal AlAnezi, Tahir Jamil. **Submitted in Carbohydrate Polymers Under Review (2016).**
11. Synthesis, characterization and application studies of polyurethane acrylate thermoset coatings: Effect of hard segment Misbah Sultana, Sadia Atta , Haq Nawaz Bhatti , **Tahir Jamil** , Atif Islam, Rashid Masood and Mehdi Barikani. **Submitted in Progress in Organic Coating Under Review (2016)**
12. Synthesis of hydroxyapatite by sol-gel, ultrasonication and microwave assisted technique. Sidra Waheed, Misbah Sultan, Mohammad Hussain, Adnan Ahmad, Sabad-e-Gul, and **Tahir Jamil Submitted in Indian Journal of Chemical Technology Under Review (2016).**
13. Synthesis of Polyphenylene Sulphide/Carbon Fiber composite and evaluation of thermal and mechanical properties with increment in layers. Shahzad Maqsood Khan, Nafisa Gull, Muhammad Azeem Munawar, Muhammad Shafiq, Farheen Anjum, Muhammad Sajid Iqbal, Atif Islam, Saba Zia, Muhammad Arif Butt, Muhammad Taqi Zahid Butt and **Tahir Jamil. Accepted in Iranian polymer Journal (2016). IF = (1.806)**
14. 2D Carbon Fiber Reinforced High density Polyethylene Multi-layered Laminated Composite Panels: Structural, Mechanical, Thermal and Morphological Profile. Shahzad Maqsood Khan, Nafisa Gull, Muhammad Azeem Munawar, Muhammad Shafiq, Farheen Anjum, Muhammad Sajid Iqbal, Atif Islam, Saba Zia, Muhammad Arif Butt, Muhammad Taqi Zahid Butt and **Tahir Jamil. Accepted in Journal of Material Science and Technology (2016) IF = (1.909)**
15. Fabrication and characterization of novel zirconia filled glass fiber reinforced polyester (GFRP) hybrid composites. Muhammad Azeem Munawar, Shahzad Maqsood Khan, Nafisa Gull, Atif Islam, Muhammad Shafiq, Muhammad Taqi Zahid Butt, **Tahir Jamil. Accepted in Journal of Applied Polymer Science (2016) IF = (1.77)**
16. Tailoring in thermomechanical properties of ethylene propylene diene monomer elastomer with silane functionalized multiwalled carbon nanotubes. Sadia Sagar Iqbal, Nadeem Iqbal, **Tahir Jamil**, Arshad Bashir, Zaffer M. Khan. *Journal of Applied Polymer Science*.133, 43221 (2016). **(IF = 1.77)**

17. Pressure stresses generated due to supersonic steam Jet Induced hydrodynamic instabilities. Afrasyab Khan Khairuddin Sanaullah; MuhdSobri Takriff, Hushairi Zen, Andrew Ragai, Henry Rigit, Ajmal Shah, Imran Rafiq Chughtai, **Tahir Jamil**. *Journal of Chemical Engineering Science*. 146, 44 (2016) IF = (2.337)
18. Impedance spectroscopy of chitosan/poly(vinyl alcohol) film. Atif Islam, Tariq Yasin, Muhammad Javed Akhtar, Zahid Imran, Aneela Sabir, Misbah Sultan, Shahzad M Khan, and **Tahir Jamil**. *Journal of Solid State Electrochem* 20, 571 (2016). IF = (2.446)
19. Evaluation of selected properties of biocompatible chitosan/poly (vinyl alcohol) blends. Atif Islam, Tariq Yasin, Nafisa Gull, Shahzad Maqsood Khan, Aneela Sabir, Muhammad Shafiq, Azeem Munawar, **Tahir Jamil**. *International Journal of Biological Macromolecule* 82, 551 (2016). IF = (2.858)
20. Conjugation of SiO<sub>2</sub> nano particles with polymer matrix membrane for reverse osmosis application using MgSO<sub>4</sub> solution. Aneela Sabir, Muhammad Shafiq, Atif Islam, Faiza Jabeen, Amir Shafeeq, Adnan Ahmad, Muhammad T Zahid Butt, Karl I Jacob and **Tahir Jamil**. *Carbohydrate Polymers* 136(20), 551 (2016). (IF = 3.916)
21. Effect of different oxidants on polyaniline/single walled carbon nanotubes composites synthesized via ultrasonically initiated in-situ chemical polymerization. Nafisa Gull, Shahzad Khan, Atif Islam, Saba Zia, Muhammad Shafiq, Aneela Sabir, Muhammad A Munawar, Muhammad Taqi Zahid Butt, and **Tahir Jamil**. *Materials Chemistry and Physics* 172, 39 (2016) IF = (2.259)
22. An investigation of AC impedance and dielectric spectroscopic properties of conducting chitosan-silane crosslinked-poly (vinyl alcohol) blended films. Atif Islam, Tariq Yasin, Nafisa Gull, Shahzad Maqsood Khan, Muhammad Shafiq, Aneela Sabir, Muhammad Azeem Munawar, H. M Hamid Raza, and **Tahir Jamil**. *Materials Research* 18(6), 1256 (2015) (IF = 0.793)
23. Ablation and thermo-mechanical tailoring of EPDM rubber using carbon fibers. Muhammad Asghar, Nadeem Iqbal, Sadia Sagar Iqbal, Mohsin Farooq, **Tahir Jamil**. *Journal of Polymer Engineering*. DOI:10.1515/polyeng-2015-0337, December (2015) (IF = 0.47)
24. Injectable biopolymer based hydrogels for drug delivery applications. Sadia Atta, Shaista Khaliq, Atif Islam, Irtaza Javeria, **Tahir Jamil**, Muhammad Makshoof Athar, Muhammad Imtiaz Shafiq, and Abdul Ghaffar. *International Journal of Biological Macromolecules* 80, 240 (2015). IF = (3.096)
25. In-situ crosslinked nanofiber mats of chitosan/poly(vinyl alcohol) blend: Fabrication, characterization and MTT assay with cancerous bone cells. Atif Islam, Tariq Yasin, Muhammad Aftab Rafiq, Tahir H. Shah, Aneela Sabir, Shahzad M Khan, and **Tahir Jamil**. *Fibers and Polymers* 16(9), 1853 (2015). IF = (0.881)
26. Fabrication of tethered carbon nanotubes in cellulose acetate/polyethylene glycol-400 composite membranes for reverse osmosis.. Aneela Sabir, Muhammad Shafiq, Atif Islam, Afsheen Sarwar, Amir Shafeeq, Muhammad Taqi Zahid Butt, and **Tahir Jamil**. *Carbohydrate Polymers* 132(5), 589 (2015). (IF = 3.916)
27. High temperature electrical properties of silane crosslinked chitosan/poly (vinyl alcohol) membrane: Thermal, mechanical and surface characterization. Atif Islam, Tariq Yasin, Aneela Sabir, Shehzad Maqsood Khan, Misbah Sultan, Muhammad Shafiq, Asad U. Khan, **Tahir Jamil** *e-Polymers* 15(4), 255 (2015). (IF = 0.333)
28. Synthesis, characterization and permeation performance of cellulose acetate/polyethylene glycol-600 membranes loaded with silver particles for ultra low pressure reverse osmosis Sabad-e-Gul, Sidra Waheed, Adnan Ahmad, Shahzad Maqsood Khan, Mohammad Hussain, **Tahir Jamil**, Muhammad Zuber. *Journal of the Taiwan institute of chemical engineers* 57, 129 (2015). (IF = 2.637)
29. Determining potential of subcooling to attenuate hydrodynamic instabilities for steam-water two phase flow. Khairuddin Sanaullah, Afrasyab Khan, Mohd Sobri Takriff, Hushairi Zen, Ajmal Shah, Imran Rafiq Chughtai, **Tahir Jamil**, Lim Soh Fong, Noaman Ul Haq. *International Journal of Heat and Mass Transfer* 84, 178-197 (2015). (IF = 2.522)
30. Synthesis and Characterization of Zinc Oxide (ZnO) Filled Glass Fiber Reinforced Polyester Composites. Nafisa Gull, Shahzad Maqsood Khan, Muhammad Azeem Munawar, Muhammad Shafiq, Farheen Anjum, Muhammad Taqi Zahid Butt and **Tahir Jamil**. *Materials and Design* 67, 313-317 (2015). (IF = 3.171)
31. Novel polymer matrix composite membrane doped with fumed silica for reverse osmosis desalination. Aneela Sabir, Atif Islam, Muhammad Shafiq, Amir Shafeeq, Muhammad Taqi Zahid Butt, Nasir Mehmood Ahmad, Khairuddin Sanaullah, and **Tahir Jamil**. *Desalination* online 3 January (2015). (IF = 3.96)
32. Effect of silica on the properties of Cellulose acetate/Polyethylene glycol membranes for reverse osmosis. Adnan Ahmad, Sidra Waheed, Shahzad Maqsood Khan, Sabad-e-Gula, Muhammad Shafiq, Muhammad Farooq, Khairuddin Sanaullah, **Tahir Jamil**. *Desalination* 355, 1-10 (2015). (IF = 3.96)
33. Synthesis and characterization of polyurethane based on aliphatic diisocyanate and stiff chain extenders. Muhammad Zuber; Khalid Mahmood Zia; Muhammad Ashair Iqbal; Zahida Tariq Cheema; Muhammad Ishaq and **Tahir Jamil**. *Korean J. Chem. Eng* 32(1), 184-190 (2015). ) (IF = 1.241)
34. Maleated high oleic sunflower oil-treated cellulose fiber-based styrene butadiene rubber composites. Mohsin A. Raza, Muhammad A. Ashraf Aidan V.K. Westwood, **Tahir Jamil**, Rafiq Ahmad, Aqil Inam, Kashif M. Deen. *Polymer Composites*, DOI:10.1002/pc.23273, 27 OCT (2014). (IF = 1.632)
35. Synthesis, characterization, permeation and antibacterial properties of cellulose acetate/polyethylene glycol membranes modified with chitosan. Sidra Waheed, Adnan Ahmad, Shahzad Maqsood Khan, Sabad-e-Gul, **Tahir Jamil**, Atif Islam, Tousif Hussain *Desalination* 351, 59-69 (2014). (IF = 3.96)

36. Fabrication and thermal characteristics of functionalized carbon nanotubes impregnated polydimethylsiloxane nanocomposites. Sagar, Sadia; Iqbal, Nadeem; Maqsood, Asghari; Shahid, Muhammad; Abbas Shah, Nazar; **Tahir Jamil** and Bassyouni, Ismail Mohamed. *Journal of Composite Materials*. 49(8), 995-1006 (2015). (IF = 1.257)
37. Synthesis and characterization of polyurethane/bentonite nanoclay based nanocomposites using toluene diisocyanate. Muhammad Fiayyaz, Khalid Mahmood Zia, Mohammad Zuber, **Tahir Jamil**, Muhammad Kaleem Khosa and Muhammad Asghar Jamal. *Korean J. Chem. Eng.*, 31(4), 644-649 (2014) (IF = 1.241)
38. Performance behavior of modified cellulosic fabrics using polyurethane acrylate copolymer. Mohammad Zuber, Sayyed Asim Ali Shah, **Tahir Jamil**, Muhammad Irfan Asghar. *International Journal of Biological Macromolecules* 67, 254 (2014). (IF = 3.096)
39. Structure-Property Relationship and Structural Study of Polyurethane-Urea Elastomers. Misbah Sultan, Haq Nawaz Bhatti, Mohammad Zuber, Mehdi Barikani, **Tahir Jamil**. *J. Chem. Soc. Pak* 36(2), 332(2014). (IF = 1.37)
40. Biocompatibility and microscopic evaluation of polyurethane–poly(methyl methacrylate)–titanium dioxide based composites for dental applications. Mohammad Zuber, Shazia Tabasum, **Tahir Jamil**, Muhammad Shahid, Rizwan Hussain, Khalid Sajjad Feras and Khalid Pervez Bhatti. *J. appl. Polym. Sci* 130(3), 2821(2014). (IF = 1.640)
41. Synthesis and molecular characterization of chitosan based polyurethane elastomers using aromatic diisocyanate. Khalid Mahmood Zia, Sohail Anjum, Mohammad Zuber, Muhammad Mujahid, **Tahir Jamil**. *International Journal of Biological Macromolecules* 66 (2014) 26–32. (IF = 3.096)
42. Synthesis and properties of aqueous polyurethane dispersions: Influence of molecular weight of polyethylene glycol. Fatima Mumtaz, Mohammad Zuber, Khalid Mahmood Zia, **Tahir Jamil**, Rizwan Hussain, *Korean J. Chem. Eng.*, 30(12), 2259-2265 (2013) (IF = 1.241)
43. Graft polymerization of guar gum with acryl amide irradiated by microwaves for colonic drug delivery. Muhammad Shahid, Shazia Anwer Bukhari, Yousra Gul, Hira Munir, Fozia Anjum, Mohammad Zuber, **Tahir Jamil**, Khalid Mahmood Zia. *International Journal of Biological Macromolecules* 62 (2013) 172– 179. (IF = 3.096)
44. Chitin based polyurethanes using hydroxyl terminated polybutadiene, Part I: Molecular engineering. Khalid Mahmood Zia, Kashif Mahmood, Mohammad Zuber, **Tahir Jamil**, Muhammad Shafiq. *International Journal of Biological Macromolecules* 59 (2013) 320–327. (IF = 3.096)
45. Development of Kevlar Supported Novel PP Membranes: Effect of Concentration of Nucleating Agent on the Properties and Performance. Nadeem Iqbal, Faisal Iqbal, Mohammad H. K. Tareen, Taimoor A. Khan, Saad Mehfooz, M. Bilal Khan, **Tahir Jamil**, Nasir M. Ahmad. *J. appl. Polym. Sci* 130(4), 2821(2013). (IF = 1.289)
46. Antimicrobial and pilling evaluation of the modified cellulosic fabrics using polyurethane acrylate copolymers. Shazia Tabasum, Mohammad Zuber, **Tahir Jamil**, Muhammad Shahid, Rizwan Hussain. *International Journal of Biological Macromolecules* 56 (2013) 99– 105. (IF = 3.096)
47. Synthesis of polypyrrole/zinc oxide composites and study of their structural, thermal and electrical properties. Aisha Batool, Farah Kanwal, Muhammad Imran, **Tahir Jamil**, Saadat Anwar Siddiqi. *Synthetic Metals* 161(23–24), 2753 (2012). (IF = 1.829)
48. Effect of additives on the properties and performance of cellulose acetate derivative membranes in the separation of isopropanol/water mixtures. Muhammad Zafar, Muddassir Ali, Shahzad Masood Khan, **Tahir Jamil**, Muhammad Taqi Zahid Butt. *Desalination*, 285(31), 359(2012). (IF = 3.96)
49. Modification of cellulosic fabric using polyvinyl alcohol, Part-II: Colorfastness Properties. Mohammad Zuber, Khalid Mahmood Zia, Ijaz Ahmad Bhatti, **Tahir Jamil**, Fazal-ur-Rehman, Ali Rizwan. *Carbohydrate Polymers*, 87(4, 1), 2439(2012). (IF = 3.916)
50. Modification of cellulosic fabric using polyvinyl alcohol, Part-I: Physicochemical properties. Khalid Mahmood Zia, Mohammad Zuber, Ali Rizwan, **Tahir Jamil**, Shazia Tabasum, Muhammad Shahid. *Carbohydrate Polymers*, 87(3, 14), 2063(2012). (IF = 3.916)
51. Modification of cellulosic fiber with polyurethane acrylate copolymers. Part I: Physicochemical properties. Misbah Sultan, Khalid Mahmood Zia, Haq Nawaz Bhatti, **Tahir Jamil**, Rizwan Hussain, Mohammad Zuber. *Carbohydrate Polymers*, 87(1-4), 397(2012). (IF = 3.628)
52. Cytotoxicity and mechanical behavior evaluation of chitin-bentonite clay based polyurethane bio-nanocomposites. Khalid Mahmood Zia, Mohammad Zuber, Mehdi Barikani, Rizwan Hussain, **Tahir Jamil**, Sohail Anjum *International Journal of Biological Macromolecules*, 49 (5-1), 1131(2011). (IF = 3.096)
53. Preparation of rich handles soft cellulosic fabric using amino silicone based softener, part II: Colorfastness properties. Mohammad Zuber, Khalid Mahmood Zia, Shazia Tabassum, **Tahir Jamil**, Syed Barkaat-ul-Hasin, Muhammad Kaleem Khosa, *International Journal of Biological Macromolecules*, 49 (1), 1(2011). (IF = 3.096)
54. Influence of glycol additives on the structure and performance of cellulose acetate/zinc oxide blend membranes. Muddassir Ali, Muhammad Zafar, **Tahir Jamil**, Muhammad Taqi Zahid Butt. *Desalination*, 270 (1-3), 98(2011). (IF = 3.96)
55. Preparation of rich handles soft cellulosic fabric using amino silicone based softener. Part-I: Surface smoothness and softness properties. Khalid Mahmood Zia, Shazia Tabassum, Syed Barkat-ul-Hussan,

- Mohammad Zuber, **Tahir Jamil**, Muhammad Asghar Jamal. *International Journal of Biological Macromolecules*, 48 (3), 482(2011). (IF = 3.096)
56. Synthesis of polypyrrole–ferric oxide (PPY–Fe<sub>2</sub>O<sub>3</sub>) composites and study of their structural and conducting properties. Farah Kanwal, Saadat Anwar Siddiqi, Aisha Batool, M Imran, Mushtaq Waheed, **Tahir Jamil**, *Synthetic Metals*, 161 (3-4), 335(2011). (IF = 1.829)
  57. Synthesis and characterization of Polyaniline/wood and Polyaniline/carbon composites Farah Kanwal, Saadat Anwar Siddiqi, Sahar Tasleem, Ghulam Sakina and **Tahir Jamil**. *J. Chem. Soc. Pak* 31(6), 882(2009). (IF = 1.37)
  58. Synthesis and characterization of Silver Hexacyanoferrate(II)/ Polyaniline composites, Farah Kanwal, Saira Ishaq and **Tahir Jamil**. *J. Chem. Soc. Pak* 31(6), 907(2009). (IF = 1.37)
  59. Synthesis of Acid Doped Conducting Polyaniline, Farah Kanwal, Atia Gul and **Tahir Jamil**. *J. Chem. Soc. Pak* 29(6), 533(2007). (IF = 1.37)
  60. Ultrasonic Degradation Studies of Polyacrylates, Farah Kanwal, Richard A. Pethrick and **Tahir Jamil**. *J. Chem. Soc. Pak* 29(5), 433(2007). (IF = 1.37)
  61. FT-IR Analysis of recycled polystyrene for food packing. Farah Kanwal, S. M. Waraich, and **Tahir Jamil**. *J. Chem. Soc. Pak*, 29(3), 239(2007). (IF = 1.37)
  62. Interactions between colloidal poly(tetrafluoroethylene) Latex and sodium poly(styrene sulfonate). **Tahir Jamil** and Paul S. Russo. *Langmuir*, 14, 264(1998). (IF = 4.186)
  63. Light scattering from random coils dispersed in a solution of rodlike polymers. **T. Jamil**, P. S. Russo, I. Negulescu, W. H. Daly, D. W. Schaefer and G. Beaucage. *Macromolecules* 27, 171(1994). (IF = 5.927)
  64. Dynamic light scattering from a semiflexible polymer at very low concentration. **Tahir Jamil** and P. S. Russo. *J. Chem. Phys* 97(4), 2777(1992). (IF = 3.333)
  65. Studies of ESR nitroxide probe mobility in polymer blends. **Tahir Jamil** and A. M. Jamieson. *J. Polymer Sci; Polym. Phys. Ed.* 27, 2554(1989). (IF = 2.548)
  66. Relaxation effects in the gel electrophoresis of DNA in intermittent electric field. **Tahir Jamil**, H. L. Frisch and L. S. Lerman. *Biopolymers* 28, 1413(1989). (IF = 2.87)
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