

Curriculum vitae



Dr. Mohd Amil Usmani
Assistant Professor,
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EDUCATION QULIFICATION

- **2007-2012 Ph. D (chemistry), Aligarh Muslim University, Aligarh, India.**
Thesis: "Physico-Chemical Studies of Aqueous Systems."
- **2004-2007 M. Tech (Post-Harvest Engineering and Technology), Aligarh Muslim University, Utter Pradesh, India.**
- **2002-2004 M.Sc. (Chemistry), Aligarh Muslim University, Utter Pradesh, India.**
Courses: Classical Thermodynamics, Statistical thermodynamics, Chemical Dynamics, Non Equilibrium Thermodynamics, Quantum Chemistry, Electrochemistry, Photochemistry, Surface Chemistry, Spectroscopy, Surfactants and their solution properties, Biophysical and Bioinorganic Chemistry, Biophysical and Solid State Chemistry.
- **1999-2002 B.Sc. (Hons) Chemistry/PCM, Aligarh Muslim University, Aligrh, India.**
Courses: Analytical Chemistry, Environmental Chemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry.
- **1996-1999 S.S.S.C (Physics, Chemistry, Maths), Aligarh Muslim University, Utter Pradesh, India.**
- **1994-1996 S.S.C, Aligarh Muslim University, Aligrh, India.**

TEACHING EXPERIENCE

- Assistant Professor (Chemistry) from August 2012 – May 2013 at Faiz-E-Aam Modern (P.G.) College, Mathura (U.P.), India.
- Assistant Professor (Chemistry) from July 2013 – September 2013 at Vision Institute of Technology, Aligarh (U.P.), India.
- Assistant Professor (Physical Chemistry) from October 2013 – June 2016 at Eritrea Institute of Technology, Asmara, State of Eritrea, East Africa.
- Working as Assistant Professor (Physical Chemistry) from 15 December 2016 at Gandhi Faiz-E-Aam College, Shahjahanpur, (U.P) India.

LIST OF PAPERS PUBLISHED

1. A.H. Bhat *, Imran Khan*, **Mohd Amil Usmani**, Reddicherla Umapathi, Salma M.Z. Al-Kindy. Cellulose an ageless renewable green nanomaterial for medical applications: An overview of ionic liquids in extraction, separation and dissolution of cellulose. International Journal of Biological Macromolecules 129 (2019) 750–777.
2. **Mohd Amil Usmania**, Imran Khan*, A.H. Bhatd, Renjith S. Pillai, Naheed Ahmadf, M.K. Mohamad Haafizg and Mohammad Oves. Current Trend in the Application of Nanoparticles for Waste Water Treatment and Purification: A Review. Current Organic Synthesis, 2017, 14, 1-21
3. Imran Uddin*, Siddarthan Venkatachalam, Arka Mukhopadhyay and **Mohd. Amil Usmani**, “Nanomaterials in the Pharmaceuticals: Occurrence, Behaviour and Applications”. *Current Pharmaceutical Design*, 22, 1472-1484,(2016).
4. I. Ahmed, **M. Amil. Usmani**, I. Uddin*, Imran khan, Neha Mathur, “Studies of solute-solvent interactions and miceller behaviour of complexes of copper (II) palmitate with substituted phenylthiourea and 2-amino benzothiazole in methanol-benzene mixture”. *Mor. J. Chem.* 4 N°1 (2016) 68-74.
5. **Mohd. Amil Usmani***, Imran Ahmed, Imran Usmani, Imran Khan, “Studies on effects of meat extenders incorporation on quality and shelf life of buffalo meat emulsion sausage”. *J. of Nutritional Ecology and Food Research*, 2, 1–7, (2014).
6. Riyazuddeen*, **Mohd. Amil Usmani**, “Effects of concentration and temperature on interactions in (l-alanine/l-threonine/glycylglycine + aqueous d-glucose/aqueous sucrose) systems: Insights from viscosity measurements”, *Thermochim. Acta* 575, 331–335 (2014).
7. Riyazuddeen*, **Mohd. Amil Usmani**, “Interactions in (glycylglycine+1M aqueous glucose/1M aqueous sucrose) systems at 298.15–323.15K”, *Thermochim. Acta* 532, 36–40 (2012).
8. Riyazuddeen*, **Mohd. Amil Usmani**, “Interactions in (L-alanine / L-threonine + aqueous glucose / aqueous sucrose) systems at 298.15–323.15 K”, *Thermochim. Acta* 527, 112–117 (2012).
9. Riyazuddeen*, **Mohd. Amil Usmani**, “Densities, Speeds of Sound, and Viscosities of (L-Proline + Aqueous Glucose) and (L-Proline + Aqueous Sucrose) Solutions in the Temperature Range (298.15 to 323.15) K”, *J. Chem. Eng. Data* 56, 3504–3509 (2011).

LIST OF BOOK CHAPTERS PUBLISHED

1. **Overview of Nanofluids to Ionanofluids: Applications and Challenges**
Imran Khan, Aamir Hussain Bhat, Dhananjay K Sharma, Mohd Amil Usmani, Farah Khan; Overview of Nanofluids to Ionanofluids: Applications and Challenges, in Book: ‘Nanomaterials for Healthcare, Energy and Environment’, Publisher: Springer, Singapore pp.199-227, 2019.
DOI:[10.1007/978-981-13-9833-9_10](https://doi.org/10.1007/978-981-13-9833-9_10)
2. **Interplay of polymer bionanocomposites and significance of ionic liquids for heavy metal removal** *M.A.Usmani, I.Khan, U.Gazal M.K.Mohamad Haafiz, A.H.Bhat* , In book: Polymer-based Nanocomposites for Energy and Environmental Applications. Mohammad Jawaid and Mohammad

3. **Nanocomposite membrane for environmental remediation**
A.H.Bhat, W.U.Rehman, I.U.Khan, I.Khan, S.Ahmad, M.Ayoub, M.A.Usmani. In book: Polymer-based Nanocomposites for Energy and Environmental Applications. Mohammad Jawaaid and Mohammad Mansoob Khan. Woodhead Publishing Series in Composites Science and Engineering. 2018, Pages 407-440. DOI:[10.1016/B978-0-08-102262-7.00015-5](https://doi.org/10.1016/B978-0-08-102262-7.00015-5)
4. **Rubber-Based Nanocomposites and Significance of Ionic Liquids in Packaging Applications**
Umaima Gazal, Imran Khan, Mohd Amil Usmani, Aamir H. Bhat and M.K. Haafiz Mohamad
In Bionanocomposites for Packaging Applications, pp 227-242, 2018. Editor(s): Jawaaid M., Swain S. Springer, Cham. https://doi.org/10.1007/978-3-319-67319-6_12
5. **Modification of polymer nanocomposites and significance of ionic liquid for supercapacitor application**
U.Gazal, I.Khan, M.A.Usmani, A.H.Bhat, In book: Polymer-based Nanocomposites for Energy and Environmental Applications. Woodhead Publishing Series in Composites Science and Engineering 2018, Pages 315-332. <https://doi.org/10.1016/B978-0-08-102262-7.00011-8>
6. **Biomass nanofibrillar cellulose in nanocomposites**
M. Amil Usmani, Imran Khan, Sk. Md Nayeem, Dibyendu Mondal, Aamir H. Bhat, Imran Ahmed, Ashanul Haque, In book: Cellulose-Reinforced Nanofibre Composites, Publisher: Elsevier Ltd. pp.305-326, 2017. DOI:[10.1016/B978-0-08-100959-8.00004-4](https://doi.org/10.1016/B978-0-08-100959-8.00004-4)
7. **Application of nanocrystalline cellulose: Processing and biomedical applications**
Aamir H. Bhat, Yaleeni Kanna Dasan, Imran Khan, H. Soleimani, M. Amil Usmani, In book: Cellulose-Reinforced Nanofibre Composites, Editors: Mohammad Jawaaid, Selangor, Sami Boufi, Abdul Khalil H.P.S. Elsevier Ltd pp.215-240, 2017. DOI:[10.1016/B978-0-08-100957-4.00009-7](https://doi.org/10.1016/B978-0-08-100957-4.00009-7)
8. **Fabrication of composites reinforced with lignocellulosic materials from agricultural biomass**
A.Haque, D. Mondal, I. Khan, M.A. Usmani, A.H. Bhat, U. Gazal
In book: Lignocellulosic Fibre and Biomass-Based Composite Materials. Elsevier Ltd., pp.179-191, 2017. DOI:[10.1016/B978-0-08-100959-8.00010-X](https://doi.org/10.1016/B978-0-08-100959-8.00010-X)
9. **Biomass nanofibrillar cellulose in nanocomposites**
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10. **Recent Progress on Rubber Based Biocomposites: From Carbon Nanotubes to Ionic Liquids**
Imran Khan, Mohd Amil Usmani, Aamir H. Bhat, Jahangir Ahmad Rather, Syed Imran Hassan and Abdul Mumam. M. Jawaaid et al. (eds.), Green Biocomposites, Green Energy and Technology. Springer International Publishing AG 2017. DOI:[10.1007/978-3-319-46610-1_5](https://doi.org/10.1007/978-3-319-46610-1_5)
11. **Impact of Nanotechnology on Water Treatment: Carbon Nanotube and Graphene**
Mohd Amil Usmani, Imran Khan, Aamir H. Bhat and M. K. Mohamad Haafiz, Vijay Kumar Thakur, Manju Kumari Thakur and Michael R. Kessler (eds.), Handbook of Composites from Renewable Materials, Scrivener Publishing LLC (WILEY) Volume 8, pp.171–206, 2017. DOI:[10.1002/9781119441632.ch154](https://doi.org/10.1002/9781119441632.ch154)

12. Biomass-based composites from different sources: Properties, characterization, and transforming biomass with ionic liquids

M.A. Usmani, I. Khan, A. Haque, A.H. Bhat, D. Mondal, U. Gazal

In book: Lignocellulosic Fibre and Biomass-Based Composite Materials, Publisher: Elsevier, Editors: M. Jawaid, P.M. Tahir, N. Saba. Elsevier Ltd. pp.45-94, 2017. <http://dx.doi.org/10.1016/B978-0-08-100959-8.00004-4>

13. Mechanism of Heat Transfer with Nanofluids for the Application in Oil Wells

A.H. Bhat, Imran Khan, Irshad Ul Haq Bhat, H. Soleimani and Mohd Amil Usmani

K. Viswanatha Sharma and N. Hisham B Hamid (eds.), Engineering Applications of Nanotechnology, Topics in Mining, Metallurgy and Materials Engineering. Springer International Publishing Switzerland pp 175-192, 2017. DOI:[10.1007/978-3-319-29761-3_7](https://doi.org/10.1007/978-3-319-29761-3_7)

14. Bioplastics and Bionanocomposites Based on Nanoclays and Other Nanofillers

A.H. Bhat, Imran Khan, Mohd Amil Usmani and Jahangir Ahmad Rather

M. Jawaid et al. (eds.), Nanoclay Reinforced Polymer Composites, Engineering Materials. Springer Singapore pp 115-139, 2016. DOI:[10.1007/978-981-10-1953-1_5](https://doi.org/10.1007/978-981-10-1953-1_5)

15. Modification of Nanoclay Systems: An Approach to Explore Various Applications

Mohd Amil Usmani, Imran Khan, Naheed Ahmad, A.H. Bhat, Dhananjay K. Sharma, Jahangir Ahmad Rather and Syed Imran Hassan. M. Jawaid et al. (eds.), Nanoclay Reinforced Polymer Composites, Engineering Materials, Springer Singapore pp. 57-83, 2016. DOI:[10.1007/978-981-10-1953-1_3](https://doi.org/10.1007/978-981-10-1953-1_3)

PRESENTATIONS/PARTICIPATIONS IN CONFERENCES AND SEMINARS

- National seminar on “Recent Trends in Applied Physics” K.R.K Government inter college, Addanki, Prakasam District, A. P. India, 16-17 Dec 2015. (**Paper Presented**)
- National Conference on “New Vistas in Chemistry.” Department of Chemistry, Aligarh Muslim University, Aligarh (U.P.), India, 2-3 March, 2012. (**Paper Presented**)
- National Conference on “Thermodynamics of Chemical and Biological Systems.” Department of Chemistry, Maharshi Dayanand University, Rohtak (India), 2-4 Nov., 2011. (**Paper Presented**)
- International Conference on “Chemistry: Frontiers and Challenges.” Department of Chemistry, Aligarh Muslim University, Aligarh (U.P.), India, 5-6 March 2011. (**Participated**)
- National Conference on “Recent Trends in Chemistry.” Department of Chemistry, Aligarh Muslim University, Aligarh (U.P.), India, 2010. (**Participated**)
- National Symposium on “Advances in Clinical Biochemistry, Biomakers, Molecular Diagnosis and Quality Assurances.” Department of Biochemistry, Aligarh Muslim University, Aligarh (U.P.), India, 15-16 Nov, 2008. (**Participated**)
- 3rd National Conference on “Thermodynamics of Chemical and Biological Systems.” Nagpur, 16-17 Oct, 2008. (**Participated**)

PERSONAL DETAILS

Born:

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Marital Status:

Married

Nationality: Indian
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