

# CURRICULUM VITAE

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Dept. of Chemistry Govt.  
Degree College (Boys)  
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Father's Name : (late) Mohammad Munawar Mir  
Date & Place of Birth : Feb., 20, 1985; J & K, India  
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## Academic Qualifications:

Examination Passed	Title of the Degree	Year of Passing	Max Marks	Marks Obtd.	%age	University /Board
Secondary	Secondary School Examination	1999	550	381	69.630	JKBOSE
Higher Secondary	Higher Secondary part II	2001	600	407	67.830	JKBOSE
Bachelor's Degree	B.Sc. (Honours)	2006	1500	1096	73.060	AMU
Master's Degree	M.Sc Chemistry(Organic)	2008	2400	1771	73.790	AMU

## Academic Distinctions (if any)

S.No	Name of Academic Course/Body	Academic distinction obtained
1	B.Sc. (Hons.) Chemistry	His Majesty King Saud Gold Medal for securing highest marks in Theology at undergraduate level
2	M.Sc Chemistry	Qualified PG Merit Scholarship test

**Eligibility Tests:**

Eligibility Test	Year of Passing	Certificate No. :	Rank	Conducted By / Examination Body
NET with JRF	22-11-2010	2061010080	368	Joint CSIR-UGC

**Research Details**

Research Degree	Topic of research	Name of Guide	Date of Enrolment	Date of Award	University / Institution
Ph.D.	Heterogeneous photocatalysed reactions of few selected organic systems	Prof. Mohd Muneer	11-12-2008	23-08-2018	AMU
PDF	Crystal engineering: Design of higher cocrystals	Prof. Gautam R. Desiraju	06-01-2014	30-11-2015	IISC

**Research Experience in a Project(s):**

Title of the Project/s	Period		Funding	Amount	Role in Project
	From	To			
Crystal engineering study of photochemical and thermal Cycloaddition reactions	28-05-2014	21-04-2017	DST SERB	3,800,000.00	PI

**Administrative or UG/PG Level Teaching Experience:**

Position Held	Period of Service		Basic Pay and Grade		Main duties/Classes taught	Name & Address of the Institution
	From	To				
Assistant Professor	01-12-2015	1-04-2017	25590	6000	Teaching and Research	Aligarh Muslim University
Assistant Professor	22-04-2017	ongoing	24850	6000	Teaching	Dept of Higher education Govt of J & K

### **Research Experience:**

<b>Position Held</b>	<b>Period of Service</b>		<b>Emoluments</b>	<b>Main duties</b>	<b>Name &amp; Address of the Institution</b>
	<b>From</b>	<b>To</b>			
Research Associate	06-01-2014	27-05-2014	20,000	Research	Solid State & Structural Chemistry Unit, IISC, Bangalore
Post Doctoral Young Scientist	28-05-2014	30-11-2015	55000	Research	Solid State & Structural Chemistry Unit, IISC, Bangalore
Assistant Professor	01-12-2015	21-04-2017	72547	Teaching and Research	Aligarh Muslim University

### **Research Interests**

Crystal engineering and Solid State reactions, Homogeneous and Heterogeneous catalyzed reactions, Synthesis of functional organic materials, Identification and characterization of intermediate products formed during photooxidation processes.

### **Instruments Handled:**

Single crystal X-ray Diffractometer, Powder X-ray Diffractometer, GC-MS, Total Organic Carbon (TOC) Analyzer, UV/Vis Spectrophotometer, FTIR, HPLC.

### **Publications**

**Published Papers: 32**

**Abstracts in Conferences: 19**

**PUBLISHED PAPERS IN JOURNALS:**

S. No	Title, Name of authors, Journal, Vol., Pages Nos.	Year of publication	Impact Factor
1	Strategy and Methodology in the Synthesis of Multicomponent Molecular Solids: The Quest for Higher Cocrystals NA Mir, R Dubey, GR Desiraju Accounts of chemical research 52 (8), 2210-2220	2019	21.661
2	Triphenylphosphine/Isocyanide Mediated Synthesis of Benzo [4, 5] imidazo [1, 2-a] pyrimidine, Enamine Ketones and Secondary Ketimines TA Shah, W Raza, M Muneer, NA Mir, M Ahmad ChemistrySelect 3 (3), 946-950	2018	1.716
3	Crystal engineering and the design of higher cocrystals NA Mir, R Dubey, GR Desiraju ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES 73, C405-C405	2017	1.878
4	A highly efficient visible-light-driven novel pn junction Fe <sub>2</sub> O <sub>3</sub> /BiOI photocatalyst: Surface decoration of BiOI nanosheets with Fe <sub>2</sub> O <sub>3</sub> nanoparticles O Mehraj, BM Pirzada, NA Mir, MZ Khan, S Sabir Applied Surface Science 387, 642-651	2016	5.155
5	Synthesis of CdS-rGO Composite by Photodeposition for Methylene Blue Decolorization A Khan, M Asim, U Alam, Y Khan, N A Mir, M Muneer Current Nanoscience 12 (5), 547-553	2016	1.586
6	Quaternary cocrystals: combinatorial synthetic strategies based on long-range synthon Aufbau modules (LSAM) R Dubey, NA Mir, GR Desiraju IUCrJ 3 (2), 102-107	2016	6.544
7	Four-and five-component molecular solids: crystal engineering strategies based on structural inequivalence NA Mir, R Dubey, GR Desiraju IUCrJ 3 (2), 96-101	2016	6.544
8	One step synthesis of highly functionalized thiazolo [3, 2-b][1, 2, 4] triazole, triazolo [1, 5-a] pyrimidine and triazolo [3, 4-b][1, 3, 4] thiadiazine TA Shah, Z Ahmad, NA Mir, M Muneer, NP Rath, M Ahmad RSC Advances 5 (130), 107931-107937	2015	3.049

9	Fabrication of novel Ag <sub>3</sub> PO <sub>4</sub> /BiOBr heterojunction with high stability and enhanced visible-light-driven photocatalytic activity O Mehraj, NA Mir, BM Pirzada, S Sabir Applied Surface Science 332, 419-429	2015	5.155
10	Synthesis, characterization and optimization of photocatalytic activity of TiO <sub>2</sub> /ZrO <sub>2</sub> nanocomposite heterostructures BM Pirzada, NA Mir, N Qutub, O Mehraj, S Sabir, M Muneer Materials Science and Engineering: B 193, 137-145	2014	3.507
11	Combinatorial crystal synthesis of ternary solids based on 2-methylresorcinol NA Mir, R Dubey, S Tothadi, GR Desiraju CrystEngComm 17 (41), 7866-7869	2015	3.382
12	Efficient visible light photocatalytic activity and enhanced stability of BiOBr/Cd (OH) <sub>2</sub> heterostructures BM Pirzada, O Mehraj, NA Mir, MZ Khan, S Sabir New Journal of Chemistry 39 (9), 7153-7163	2015	3.069
13	Ag <sub>2</sub> S sensitized mesoporous Bi <sub>2</sub> WO <sub>6</sub> architectures with enhanced visible light photocatalytic activity and recycling properties O Mehraj, BM Pirzada, NA Mir, S Sultana, S Sabir RSC Advances 5 (53), 42910-42921	2015	3.049
14	In-situ anion exchange synthesis of AgBr/Ag <sub>2</sub> CO <sub>3</sub> hybrids with enhanced visible light photocatalytic activity and improved stability O Mehraj, NA Mir, BM Pirzada, S Sabir, M Muneer Journal of Molecular Catalysis A: Chemical 395, 16-24	2014	2.938
15	Photocatalytic degradation of herbicide Bentazone in aqueous suspension of TiO <sub>2</sub> : mineralization, identification of intermediates and reaction pathways NA Mir, MM Haque, A Khan, M Muneer, S Vijayalakshmi Environmental technology 35 (4), 407-415	2014	1.666
16	Photocatalytic Study of Two Azo Dye Derivatives, Ponceau Bs and Reactive Blue 160 in Aqueous Suspension of TiO <sub>2</sub> : Adsorption Isotherm and Decolorization Kinetics NA Mir, A Khan, AA Dar, M Muneer International Journal of Innovative Research in Science, Engineering and	2014	0.0
17	(E) and (Z)-1,4-diphenyl-2-(2-phenyl-1H-benzo[d]imidazol-1-yl)but-2-ene-1,4-dione S Ahmed, NA Mir, TA Shah, W Raza, M Muneer, NP Rath Journal of Crystallography	2014	0.0
18	One pot synthesis of imidazo [2, 1-b] thiazoles and benzo [d] thiazolo [3, 2-a] imidazoles NA Mir, TA Shah, S Ahmed, M Muneer, NP Rath, M Ahmad	2014	2.259

19	Photocatalytic Decolorization of an azo dye derivative, Acid Yellow 29 in aqueous suspension of Titania A Khan, NA Mir, M Muneer, ZS Seddigi Current catalysis 3 (1), 115-122	2014	0.0
20	Photocatalysed mineralization of three selected antibacterial drugs, kanamycin acid sulfate, ampicillin and pyrazinamide in aqueous suspensions of TiO <sub>2</sub> /H <sub>2</sub> O <sub>2</sub> A Khan, NA Mir, MM Haque, M Muneer	2013	0.0
21	Photocatalytic Study of a Xanthene Dye Derivative, Phloxine B in Aqueous Suspension of TiO <sub>2</sub> : Adsorption Isotherm and Decolourization Kinetics NA Mir, A Khan, K Umar, M Muneer	2013	0.0
22	Photocatalytic degradation of a widely used insecticide Thiamethoxam in aqueous suspension of TiO <sub>2</sub> : Adsorption, kinetics, product analysis and toxicity assessment NA Mir, A Khan, M Muneer, S Vijayalakshmi	2013	5.589
23	Titanium dioxide-mediated photocatalysed mineralization of two selected organic pollutants in aqueous suspensions K Umar, MM Haque, NA Mir, M Muneer, IH Farooqi Journal of Advanced Oxidation Technologies 16 (2), 252-	2013	0.901
24	Synthesis, characterization and photocatalytic activity of visible light induced Ni-doped TiO <sub>2</sub> MM Haque, A Khan, K Umar, NA Mir, M Muneer, T Harada, M Matsumura	2013	0.0
25	Solar photocatalytic decolorization of two azo dye derivatives, acid red 17 and reactive red 241 in aqueous suspension A Khan, N Mir, MM Haque, M Muneer, C Boxall	2013	1.318
26	Heterogeneous photocatalyzed degradation of a pesticide derivative, 3-chloro-4-methoxyaniline, in aqueous suspensions of titania A Khan, NA Mir, MM Haque, M Muneer, S Vijayalakshmi,	2012	2.064
27	Photocatalysed decolourization of two textile dye derivatives, Martius Yellow and Acid Blue 129, in UV-irradiated aqueous suspensions of Titania K Umar, AA Dar, MM Haque, NA Mir, M Muneer	2012	1.383
28	Semiconductor mediated photocatalysed reaction of two selected organic compounds in aqueous suspensions of Titanium dioxide NA Mir, MM Haque, A Khan, K Umar, M Muneer, S	2012	0.901
29	Titanium dioxide-mediated photocatalysed degradation of two herbicide derivatives chloridazon and metribuzin in aqueous suspensions A Khan, NA Mir, M Faisal, M Muneer	2012	0.0
30	Photoassisted degradation of a herbicide derivative, dinoseb in aqueous suspension of titania NA Mir, MM Haque, A Khan, M Muneer, C Boxall The Scientific World Journal 2012	2012	0.0

<b>31</b>	Photocatalysed degradation of a herbicide derivative, Dinoterb, in aqueous suspension AA Dar, K Umar, NA Mir, MM Haque, M Muneer, C Boxall	2011	2.064
<b>32</b>	Heterogeneous photocatalysed degradation of an insecticide derivative acetamiprid in aqueous suspensions of semiconductor A Khan, MM Haque, NA Mir, M Muneer, C Boxall	2010	6.035

## INTERNATIONAL CONFERENCES

### *Proceedings:*

11. Crystal engineering and the design of higher cocrystals  
**Niyaz A Mir**, Ritesh Dubey and Gautam R. Desiraju  
24th Congress and general Assembly of the international Union of crystallography, 21-28 August, Hyderabad, India.
10. Sunlight-induced semiconductor mediated photodecolorisation of an azo dye derivative, acid red 17 in aqueous suspension  
Abuzar Khan, **Niyaz A. Mir**, M.M. Haque and M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 5-6 (2011)
9. Study on photocatalytic degradation of Chloramben in aqueous suspension of titania  
**Niyaz A. Mir**, M.M. Haque, Abuzar Khan and M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 5-6 (2011).
8. The hydrogen peroxide-assisted photocatalytic degradation of a pesticide derivative bentazon in aqueous suspension of semiconductor  
M.M. Haque, **Niyaz A. Mir**, M. Zaid, Khalid Umar and M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 5-6 (2011).
7. Photocatalytic transformation of an insecticide derivative Thiamethoxam in aqueous suspension of Titania monitored by GC-MS  
**Niyaz A. Mir**, A. Khan, M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3 (2013).
6. Synthesis characterisation and X-ray structure derived from the reaction of 2-phenylbenzimidazole with dibenzoyl acetylene  
Sarfaraz ahmad, **Niyaz A. Mir**, Waseem Raza, Mohd Muneer, Nigam P. Rath  
international Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3



(2013).

5. Study of synthesis, Characterization and photocatalytic properties of Lanthanum doped ZnO/TiO<sub>2</sub> Nanoparticles  
Bilal Masood Pirzada, **Niyaz A. Mir**, Owais Mehraj, Suhail Sabir, M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3 (2013).
4. Studies on polyethylene glycol capped lanthanum ion doped zinc sulphide nanoparticles  
Owais Mehraj, Bilal Masood Pirzada, **Niyaz A. Mir**, Suhail Sabir, Mohd Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3 (2013).
3. Synthesis, Charecterization and photocatalytic activity of visible light induced Ni- doped TiO<sub>2</sub>  
Abuzar Khan, M.M. Haque, **Niyaz A. Mir**, K. Umar, M. Muneer, T. Harada and M. Matsumura  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3 (2013).
2. Synthesis of multichromophoric organic compounds by addition of heterocyclic nucleophiles to dibenzoylacetylene  
Zubair Ahmad, Tariq A. Shah, **Niyaz A. Mir**, Waseem Raza, M. Muneer  
International Conference on Chemistry: Frontiers and Challenges, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 2-3 (2013).
1. Synthesis, Characterization, Photocatalytic and Electrical Properties of ZrO<sub>2</sub> doped TiO<sub>2</sub> Nanocomposites  
Bilal Masood Pirzada, **Niyaz Ahmad Mir**, Nida Qutub, Suhail Sabir, Mohd. Muneer  
5<sup>th</sup> Bangalore Nano, Bangalore, India, POS-28 Dec 2012.

## NATIONAL CONFERENCES

### *Proceedings:*

8. Heterogeneous photocatalysed degradation of a pesticide derivative dinoseb in aqueous suspension of semiconductor  
**N. A. Mir**, M. M. Haque, M. Muneer, C. Boxal.  
National conference on chemistry of materials, Department of Chemistry, University of Mumbai, Mumbai, February, 20-21 (2009).
7. Photocatalysed degradation of a pesticide derivative thiamethoxam in aqueous suspension of semiconductor  
**Niyaz A. Mir**, M. M. Haque, M. Muneer.  
National Symposium on Recent Trends in Chemical Sciences, Department of Chemistry, Aligarh Muslim University, Aligarh, February, 24-25 (2010).
6. Synthesis, Characterization and photocatalytic activity of Mn-doped TiO<sub>2</sub>  
M. M. Haque, K. Umar, A. Khan, **N.A. Mir** and M. Muneer  
National Conference on New Vistas in Chemistry, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 1-3 (2012).
5. Photocatalytic decolourization of an azo dye Acid Yellow 29 in aqueous suspensions of titanium dioxide  
Abuzar Khan, **N.A.Mir**, M. M. Haque, M. Muneer  
National Conference on New Vistas in Chemistry, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 1-3 (2012).
4. Photocatalytic degradation of an azo dye Ponceau BS in water: Investigation of the effect of operational parameters  
**Niyaz A. Mir**, A. Khan and M. Muneer  
National Conference on New Vistas in Chemistry, Department of Chemistry, Aligarh Muslim University, Aligarh, March, 1-3 (2012).
3. Photocatalytic decolourization of a dye, Phloxine B in aqueous suspension of TiO<sub>2</sub>  
**Niyaz A. Mir**, A. Khan and M. Muneer  
National conference on nanoscience and nanotechnology, Department of applied physics, Z. H. college of engineering & Technology, Aligarh Muslim University, Aligarh, March, 10-12 (2012).
2. Synthesis of Visible Light Active Cds-RG Composite by Photoreduction of

Graphene Oxide.

A.Khan, **N. A. Mir**, S. A. Ansari, S. Ahmed, M. Muneer, W. Khan

National conference on nanoscience and nanotechnology, Department of applied physics, Z. H. college of engineering & Technology, Aligarh Muslim University, Aligarh, March,10-12 (2012).

1. Synthesis and characterisation of mesoporous doped titanium dioxide & its photocatalytic activity on the degradation of methylene blue.

M. M. Haque, A. Khan, K. Umar, **Niyaz A. Mir**, M. Muneer

National conference on nanoscience and nanotechnology, Department of applied physics, Z. H. college of engineering & Technology, Aligarh Muslim University, Aligarh, March, 10-12 (2012).