

Curriculum Vitae of Md. Arzu MIAH

• Personal Details:

Name: Md. Arzu MIAH

Father's Name: Md. Shahabuddin

Date of Birth: 12- 08 -1963 (12th August 1963)

Place of Birth: Narsingdi, Bangladesh

Nationality: Bangladeshi

Marital Status: Married

Religion: Islam

Affiliation: Associate Professor, Department of Chemistry



Md. Arzu MIAH

• Mailing Address:

Department of Chemistry, Jahangirnagar University,

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• Permanent Address:

Village - Birgoan, Post Office - Charmandalia,

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• Present Address:

Department of Chemistry

Korea Advanced Institute of Science and Technology (KAIST),

Daejeon 305-701, Republic of Korea.

Tel: + 82-42-869-4903(Res.). + 82-42-869-2890(Off.), + 82-42-869-2866(Lab).

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• Academic Qualifications:

B. Sc (Hon's), Jahangirnagar University, 1985, **1st Class 1st Position** in order of Merit

M. Sc (Thesis), Jahangirnagar University, 1986, **1st Class 1st Position** in order of Merit

Ph. D. Vienna University of Technology, Austria, 1999.

Postdoctoral Fellow: Vienna University of Technology, June-1999- September-1999

Postdoctoral Fellow: Korea Advanced Institute of Science and Technology (KAIST),
2003- (Continue)

• **Job/Service Experience:**

Institution	Job Title	Nature of Work	From	To
Dhaka City College, Dhaka, Bangladesh.	Lecturer in Chemistry	Teaching	05.05.90	14.10.1992
Atomic Energy Commission, Savar, Dhaka, Bangladesh	Scientific Officer	Research	15.10.92	26.11.1993
Govt. Haraganga College, Munshigonj, Bangladesh	Lecturer in Chemistry	Teaching	27.11.93	25.06.1994
Jahangirnagar University, Savar, Dhaka, Bangladesh	Lecturer Department of Chemistry	Teaching and Research	26.06.94	18.10.1996
Jahangirnagar University, Savar, Dhaka Bangladesh.	Assistant Professor Department of Chemistry	Teaching and Research	20.10.96	10.01.2001
Jahangirnagar University, Savar, Dhaka Bangladesh.	Associate Professor Department of Chemistry	Teaching and Research	11.01.01	28.02.03
Department of Chemistry Korea Advanced Institute of Science and Technology KAIST, Korea(South)	Postdoctoral Research Fellow	Research	02.03.03	Continue

• **References:**

Prof. Dr. Roland Schmid

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Vienna University of Technology
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Prof. Dr. Kazi Ali Azam

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- **Postgraduate Courses Performed in Vienna University of Technology:**

Subject	Institute	Type	Rank*	Date
Organometallic Chemistry	Institute of Inorganic Chemistry	Lecture	S1	04.08.1997
Bio-inorganic Chemistry	Institute of Inorganic Chemistry	Lecture	U2	14.01.1998
Inorganic Reaction Mechanism	Institute of Inorganic Chemistry	Lecture	U2	11.02.1999
Seminar for Doctoral Study	Institute of Inorganic Chemistry	Seminar	U2	8.7.1998
Chemistry of Metal Compounds	Institute of Inorganic Chemistry	Lecture	S1	14.01.1998
Mineral Raw Materials	Institute of Mineralogy, Crystallography and Structural Chemistry	Lecture	U2	19.01.1999
Laboratory Technique	Institute of Organic Chemistry	Pro-seminar	U4	26.02.1997

* Examination Grades: 1(very good); 2(good); 3(satisfactory); 4(pass); 5(failed).

• **Research Interests:**

- (1) Organometallic/ Metal Cluster –Carbon Cluster (Fullerene-C₆₀) Chemistry
- (2) General Chemistry
- (3) Analytical/Environmental Chemistry.

• **Research Publication:**

Please find enclosed list of research publication

• **Conference/Seminar Attended:**

1. Presented paper at the “**12th Annual Conference of Bangladesh Chemical Society**” Dhaka, March 10-12, 1989
2. Presented paper at the “**13th Annual Conference of Bangladesh Chemical Society**” Dhaka, January 10-12, 1990
3. Presented paper at the “**16th Annual Conference of "Bangladesh Chemical Society"** Dhaka, April 8-9, 1993
4. Presented paper in the one-day seminar arranged by **The Nuclear Chemistry Division, Institute of Nuclear Science and Technology, Atomic Energy Research Establishment, Savar, Dhaka, May 4, 1993**
5. Attended the workshop on “**Communicating Environmental Risks: Environmental Education as a Tool for Environmental Disaster Management**”. arranged by Jahangirnagar University, Savar, Dhaka, Bangladesh, 27-31 May, 1994
6. Attended the “**19th Bangladesh Science Conference, arranged by Bangladesh Association for the Advancement of Science, (BASS)**” Dhaka, October 29-31, 1996
7. Presented paper in the seminar arranged by **the Institute of Inorganic Chemistry, Vienna University of Technology**. Austria, held on 3rd March 1998
8. Presented paper in the seminar arranged by the **Institute of Inorganic Chemistry, Vienna University of Technology**, Austria, held on 8th July, 1998
9. Attended the one-day seminar arranged by **the Faculty of Mathematical and Physical Sciences, and served as a rapporteur in 5th session for chemistry, Jahangirnagar University, Savar, Dhaka, May 13, 2000;**
10. Attended the seminar on “**Importance of IT in R & D Activities in Science and Technology**” arranged by **Bangladesh Association for the Advancement of Science, (BASS)**” Dhaka, August, 20, 2000;
11. Presented paper in the seminar arranged by the **Faculty of Mathematical and Physical Sciences, and served as a rapporteur in 5th session for chemistry, Jahangirnagar University, Savar, Dhaka, July 25, 2001;**
12. Presented paper at the seminar arranged by the **Faculty of Mathematical and Physical Sciences, Jahangirnagar University, Savar, Dhaka, May 20, 2002.**
13. Presented paper at the “**Silver Jubilee Conference of Bangladesh Chemical Society**” Jahangirnagar University, Dhaka, and January 11-13, 2003.
14. Attended “**The 91st National Meeting of the Korean Chemical Society**” held on April 18-19, 2003, COEX, Seoul. Republic of Korea.

15. Presented Paper at “**The 39th IUPAC Congress and 86th Conference of the Canadian Society for Chemistry**”, August 10 - 15, 2003, Ottawa, Canada
16. Attended the **International Symposium for the 30th Anniversary of the Daedeok Science Town**, September 29-30, Daejeon, Republic of Korea.
17. Attended “**The 92nd National Meeting of the Korean Chemical Society**” held on October 16-17, 2003, BEXCO, Busan. Republic of Korea.

• **Scholarship/Fellowship/Award/Prize/Grant/Service Obtained:**

Accepted:

- (i) **Merit Scholarship** for securing First Class First Position in B.Sc. (Hons) examination in 1985
- (ii) **Director of Public Instruction Scholarship** for B.Sc. and M.Sc (1984-1986).
- (iii) **Vice Chancellor Prizes (Book Prize)** in 1985 and 1986 for securing First Class First Position both in B.Sc. and M.Sc examinations respectively.
- (iv) **Austrian Academic Exchange Service (ÖAD) North-South Dialogue Scholarship** to pursue Ph.D. in 1996.
- (v) **Research Fellowship:** Institute of Inorganic Chemistry, Vienna University of Technology, June 1999- September-1999 for **Postdoctoral Research**.
- (vi) **BK-21 Fellowship** for pursuing Postdoctoral Research in KAIST, Korea (South)-2003
- (vii) **IUPAC-Young Scientist Travel Grant** to attend The 39th IUPAC Congress and 86th Conference of The Canadian Society for Chemistry August 10 - 15, 2003.

Not Accepted:

- (i) **ORS (Overseas Research Scheme) Scholarship** for pursuing Ph. D. at University College London (UCL) in 1996.
- (ii) **Indian Government Scholarship** for pursuing Ph. D. at Indian Institute of Technology (IIT) both in Kanpure and Kharagpure in 1996.
- (iii) Got appointment letter to serve as a Chemist in **Bangladesh Gas and Petroleum Corporation**.
- (iv) Got appointment letter to serve as a Scientific Officer in **Bangladesh Cultural, Scientific and Industrial Research (BCSIR)**, Dhaka.

• **Courses Taught at University level (Graduate courses are marked by an *)**

Institution	Title of Course	Language of Instruction
Department of Chemistry Jahangirnagar University	Advanced Inorganic Chemistry- II*	English
Department of Chemistry Jahangirnagar University	Analysis of Inorganic Compounds	English
Department of Chemistry Jahangirnagar University	Analytical Chemistry	English
Department of Chemistry Jahangirnagar University	Qualitative Analysis of Inorganic Compounds*	English
Department of Chemistry Jahangirnagar University	Advanced Organometallic Chemistry*	English
Department of Geological Sciences, Jahangirnagar University	General Chemistry *	English
Department of Chemistry Jahangirnagar University	Environmental Chemistry*	English
Department of Chemistry Jahangirnagar University	Quantitative Analysis	English
Department of Chemistry Jahangirnagar University	Supramolecular Chemistry*	English

• **Membership of Professional Institution/ Societies:**

Life Member of Bangladesh Chemical Society, Life Member of Bangladesh Association for the Advancement of Science, (BASS), Life member of Registrar Graduate of Jahangirnagar University, Life member of Unmilan Shamazic Parishad, Narsingdi.

• **Other/University Activities**

Assistant House Tutor	M. M. H. Hall, J.U. 1994-96
House Tutor	Moulana Vasani Hall, Jahangirnagar University, 1999-2003(Feb.)
Elected Member of the Academic Council	Jahangirnagar University-2000

Elected Senator	Jahangirnagar University, 2001- 2003(Feb.)
Member of the Chemical Society	Department of Chemistry, J.U.Since-1994
Assistant Proctor	J.U. 2002
Ex-Member, Executive Committee	Teacher's Club, J.U. 2001
Ex-member, Bangladesh Scientist Association	Bangladesh Atomic Energy Commission- 1992-1993

Ex-member of Bangladesh-Austria Association, Vienna, Austria, 1996-1999

Acted as a member in the "Food and Accommodation Committee" of 19th Bangladesh Science Conference, arranged by Bangladesh Association for the Advancement of Sciences (BASS),Jahangirnagar University, Dhaka, October 29-31, 1996.

Acted as a member in the "Registration Committee", Silver Jubilee Conference of Bangladesh Chemical Society (BCS), Jahangirnagar University, Dhaka, October 11-13,2003.

- **The 14th Bangladesh Civil Service (B.C.S) Examination:**

I was placed second in the merit list panel of the 14th Bangladesh Civil Service (BCS) examination for Education Cader of chemistry teacher conducted by Bangladesh Public Service Commission (PSC) in 1992-93

- **Country Visited:**

Austria, Germany, France, Canada, Malaysia and South Korea.

- **Computer Knowledge:**

Window 95/98/2000, XP, MS-Word, MS-Excel, MS-Access, MS-Outlook, Origin Pro 6.1, Power point., Adobe Acrobat 5/6, Adobe Reader-6, Photo Shop, Multimedia, Chem Window, ORTEP, Chemdraw Ultra, Equation Editor and E-mail and Internet etc.

- **Language Ability:**

Bangali, English, German, Arabic and Korean

- **Hobby:**

Scientific Magazine, (Computer World/Jagat, Bit & Byte, etc), Music, Gardening, Playing Badminton, Foot Ball. Volley Ball etc.

Publication List of Md. Arzu Miah

(A) Articles in Referred Journal

21. Reinvestigation of the reaction of $[\text{Ru}_3(\text{CO})_{12}]$ with 2-mercapto-benzothiazole: X-ray structure of $[(\mu\text{-H})_2\text{Ru}_3(\mu\text{-}\eta^2\text{-C}_7\text{H}_4\text{NS}_2)(\mu_3\text{-}\eta^2\text{-C}_7\text{H}_4\text{NS}_2)(\text{CO})_7]$
Miah, M. A., Khandakar, H.; Islam, M.S.; Kabir, S. E. Malik, K. M. A.; Nathan, W. *Journal of Chemical Crystallography*, **2003**, *33*, 859-865.
20. Binuclear Ruthenium Complexes Containing Bridging Dithiolate and Dppm Ligand : X-Ray Structures of $[\text{Ru}_2(\text{CO})_4(\mu\text{-SCH}_2\text{CH}_2\text{CH}_2\text{S})(\mu\text{-dppm})]$ and $[\text{Ru}_2(\text{CO})_4\{(\mu\text{-SC}_6\text{H}_3(\text{CH}_3)\text{S})(\mu\text{-dppm})\}]$
Miah, M. A.; Hyder, M. I; Hossain, G. M. G; Kabir, S. E.; Malik, K. M. A; Siddiquee, T. A. *Polyhedron*, **2003**, *22*, 633-640.
19. Synthesis and Reactivity of $[(\mu\text{-H})\text{Os}_3(\text{CO})_{10}(\mu\text{-SC}=\text{NCH}=\text{CHN}(\text{CH}_3))]$
Miah, M. A., Hossain, G. M. G; Kabir, S. E. *Journal of Bangladesh Academy of Science*, **2002**, *26*, 135-139.
18. Abstraction the PyS Ligand from $[\text{Mn}_2(\mu\text{-PyS})_2(\text{CO})_6]$ By $[\text{Os}_3(\text{CO})_{12}]$
Miah, M. A., Kabir S. E.; Alam J.; Malik K. M. A. *Journal of Bangladesh Academy of Science*, **2001**, *26*, 73-78.
17. Reactivity of the Complex $[\text{Fe}_2(\text{CO})_6(\mu\text{-Ph}_2\text{N})_2]$ with CS_2 and Tert Butyl Isocyanide
Miah, M. A. Abser. M. N.; Kabir, S. E. *Journal of Bangladesh Chemical Society*, **2001**, *14*, 167-172.
16. Hydration Thermodynamic of Hydroxyl Ion
Miah, M. A.; Schmid, R. *Jahangirnagar University Journal of Science*, **2001**, *24*, 9-14.
15. Revision of the Strength of the Hydrohalic Acids.
Miah, M. A.; Schmid, R. *Journal of Chemical Education* **2001**, *78*, 116-117.
14. A New Table of Experimental Single-Ion Thermodynamic Quantities of Ionic Hydration: Values and Some Applications (Enthalpy-entropy compensation and Born radii).

- Miah, M. A.;** Schmid, R.; Sapunov, V. *Phys.Chem Chem. Phys*, **2001**, *2*, 97-102.
13. Phosphine Substituted μ -Imidol Triosmium Clusters.
- Miah, M. A.;** Kabir, S. E. *Jahangirnagar University Journal of Science*. **2000**, *22 &23*, 35-41.
12. Synthesis and Characterization of $[\text{Mo}_2(\text{CO})_{10}\{\mu\text{-Ph}_2\text{P}(\text{CH}_2)_n\text{PPh}_2\}]$ (n=5 or 6).
- Miah, M. A.;** Kabir, S. E., Karim, M. M. and Uddin, K. M. *Jahangirnagar University Journal of Science*, **2000**, *22 &23* , 29-34.
11. Lead and Cadmium Contents in Fifteen Brands of Cigarette Available in Bangladesh.
- Miah, M. A.;** Alamgir, M.; Chakraborty, K. L. *The Bangladesh Journal for Scientific Research* **1999**, *17*, 133-138.
10. Bis(diphenylphosphino)hexane Derivatives of Dodecacarbonyltriosmium.
- Miah, M. A.;** Kabir, S. E.; Azam, K. A. *Journal of Bangladesh Academy of Science* **1996**, *20*, 57- 63.
9. Methylene Chain Length and Coordination Geometry in Triosmium Clusters Containing Diphosphine Ligands: X-Ray Crystal Structures of $[\text{Os}_3(\text{CO})_{10}\{\mu\text{-Ph}_2\text{P}(\text{CH}_2)_n\text{PPh}_2\}]$ (n= 4 or 5) and $[\text{Os}_3(\text{CO})_8\{\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2\}]$.
- Miah M.A.;** Kabir, S. E.; Nesa, L.; Uddin, K.; Hardcastle, K. I.; Rosenberg, E.; Deeming, A.J. *Journal of Organometallic Chemistry*, **1995**, *492*, 41-51.
8. High-yield Synthesis of a Triruthenium Cluster Containing Bridging Sulfur, Hydrido, and Bis(diphenylphosphino)methane. Ligands
- Miah, M. A.;** Kabir, S. E.; Rab, S. M. A. *Jahangirnagar University Journal of Science*, **1995**, *19*, 39-44.
7. Protonation of Diphosphine and Phosphite Derivatives of Dodecacarbonyltriruthenium.
- Miah, M. A.;** Kabir, S. E.; Uddin, K.; Deeming, A. J. *Journal of Organometallic Chemistry* , **1994**, *476*, 121-126.
6. Studies of the Dynamic Behavior of Two Isomers of $[\text{Os}_3(\text{CO})_{10}\text{L}_2]$ {L = $\text{P}(\text{OMe})_3$, PEt_3 or PBU_3^t }.
- Miah, M. A.;** Ahmad, J. U.; Kabir, S. E. *Journal of Bangladesh Chemical Society*.**1992**, *5*, 159-165.

5. Sulphido Triosmium Clusters Containing Bridging Bis(diphenylphosphino)-methane
Miah, M. A.; Kabir, S. E. *Jahangirnagar Review*, **1989-92, Part A, 13-16, 7-13.**
4. Triosmium Clusters Containing Bridging Sulfur, Hydrido, and Diphosphine Ligands : A Study of Hydride Site Preferences and Mobility.
Miah, M. A.; Azam, K.A.; Kabir, S. E.; Day, M.; Hardcastle, K. I.; Rosenberg, E.; Deeming, A. J. *Journal of Organometallic Chemistry*, **1992, 435, 157-167.**
3. Synthesis and Reaction of Decacarbonyl [1,2-bis(Diphenylphosphino)-Methane]. Triruthenium (0), $[\text{Ru}_3(\text{CO})_8(\mu - \{(\text{C}_6\text{H}_5)_2\text{PCH}_2\text{P}(\text{C}_6\text{H}_5)_2\})]$.
Miah, M. A.; Ahmad, J. U.; Kabir, S. E. *Journal of Bangladesh Chemical Society*, **1991, 4, 61-64.**
2. Synthesis and Reaction of a Sulphido Triosmium Clusters.
Miah, M. A., Ahmad, J. U. and Kabir, S. E. *Journal of Bangladesh Chemical Society*, **1991, 4, 153-158.**
1. Nucleophilic Addition of Ethane Thiol at Bridging Acetylene Ligand in $[\text{Os}_3\text{H}(\text{C}-\text{CH})(\text{CO})_9]$.
Miah, M. A.; Ahmad, J. U.; Azam, K.A.; Kabir, S. E. *Journal of Bangladesh Academy of Sciences*, **1990, 14, 257-258.**

(B) Refereed Conference Papers

5. **Miah, M. A.;** Hyder M. I; Kabir S. E.; Malik, K.A.M; Mottalib, M. A. and Rosenberg, E: Reactions of Electron-Deficient Clusters of quinolines and quinoxalines with diazomethane, *The 39th IUPAC Congress and 86th Conference of the Canadian Society for Chemistry* August 10 - 15, **2003**, Ottawa, Canada
4. **Miah .M. A;** Hyder. M. I. and Kabir S. E: Bis(Diphenylphosphino)Methane (Dppm) Substituted Ruthenium Carbonyl Clusters Containing Capping Sulfido and Selinodo Ligands. *Silber Jubilee Conference of Bangladesh Chemical Society, Jahangirnagar University, Dhaka, January 11-13 , 2003.*
- 3 **Miah M. A.,** Azam, K. A. and Kabir S. E: Protonation of Diphosphine and Monophosphine Substituted Derivatives of Trirutheniumdodecarbonyl. *16th Annual Conference, Bangladesh Chemical Society Dhaka 10, March, 1991*
2. **Miah M. A. ,** Ahmad, , J. U Azad, S. M., Azam, K. A and. Kabir S.E : Synthesis and reactions of triruthenium clusters containing bridging diphosphine ligands. *13th annual conference of Bangladesh Chemical Society, Dhaka, 14, March, 1990.*

1. **Miah, M. A.** Azad, S. M., Azam K. A., and Kabir S. E : Synthesis and reactions of sulphido triosmium carbonyl clusters containing bis(diphenylphosphino)methane. *12th annual conference of Bangladesh Chemical Society at Dhaka, 11, March, 1989.*

(C) Project Report

1. Synthesis and Reactivity of Osmium and Ruthenium Cluster Compounds, *Jahangirnagar University, 1996, 25 pp.*
2. Synthesis, Reactivity and Characterization of Osmium Cluster Complexes Containing N and Donor Atoms. *Jahangirnagar University, 2000, 22 pp.*
3. Synthesis, Structure and Characterization of Mixed-Metal Cluster Complexes Containing Nitrogen and Sulfur Donor Ligands. *Jahangirnagar University, 2001, 27 pp.*