

CURRICULUM VITAE

PERSONAL DETAILS

NAME: Dr. Moinuddin Sarker

NATIONALITY: **CANADIAN**

CORRESPONDING ADDRESS:

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: msarker@optonline.net
: sarkermm@yahoo.com

LANGUAGES: Bangla (Bengali) - Mother Tongue
English - Fluent in Speaking and Writing.
Hindi and Urdu Speaking only

Objective- To contribute and expand my knowledge and professional experience of Physical, Inorganic, Analytical, Environmental Chemistry and Mineralogy, Solid State and Condensed Matter Physics, Material Sciences, Synchrotron Radiation, Surface Sciences (UHV), Semiconducting Interfaces, Thin Films, Quantum Dots, Waste Conversion into Energy, Alternate Source of Energy, Polymer Physics and Chemistry through research and development in a Research Institute and Company.

SUMMARY:

Presently I am working as a **Chief & Lead Research Scientist** at Natural State Research (NSR), Inc., in Stamford, Connecticut, USA. NSR is dealing with waste conversion into energy, especially recycling plastic, municipal solid waste including plastics, wastes and convert them into fuel. In addition, **I am working in USA with O-1 Visa since March 2005.**

From May 2004- December 2004, I used to work as a Senior Research Scientist (Prof. Research # 2) at the Department of Chemistry, University Sherbrooke in Sherbrooke, Quebec, Canada. We were working on Snow / Ice Crystal. MBE (Molecular Beam Epitaxy) is use for crystal preparation. SEM, TEM (Cryogenic), FTIR, QMS (Quadruple Mass Spectroscopy), Laser, XPS as well as XAFS techniques was using for the sample characterization and analysis to understand the physical, dissociation, chemical and kinetics properties in Snow/Ice crystal / environmental Chemistry.

During my tenure (November 2001- April 2004) at Simon Fraser University in British Columbia, Canada, I was worked on thin films of Au/Pd/Fe/GaAs and studying by XAFS techniques.

I have a Ph. D. degree in chemistry from University of Manchester Institute of Science and Technology (UMIST), Manchester, UK (1996). I carried out projects involving techniques from multidisciplinary fields including analytical and physical chemistry, condensed matter physics, ceramic materials, surface and material sciences and synchrotron radiation sources (design, set up and carried out research). I used XRD, SEM, EDAX, VSM in UMIST and XAFS (EXAFS and XANES/NEXAFS), Resonant Photoemission Spectroscopy and Angle Resolved Ultra Photoelectron Spectroscopy techniques in Daresbury Synchrotron Radiation Center, UK for sample characterization. Results have been published in the international journals.

Moreover, I have more than 12 years professional research experience in different universities and research organizations (Canada, the Netherlands, Germany, Taiwan and UK) in determining electronic and magnetic structure of unknown materials that have important value in Nano-Technology industries. Detailed characterization was done by using various techniques such as XPS, UPS (ARUPES), AES, LEED, conventional single and powder XRD, VSM, SQUIDS, SEM, EDAX, TEM (Cryogenic and Room Temperature), TGA, TDA / DSC, QMS, Laser, IR, and AFM. I have done like XRD, Extended X-ray Absorption Fine Structure and X-ray Microprobe XAFS using synchrotron radiation as well as other UHV synchrotron radiation techniques such as Resonant Photoemission Spectroscopy and Angle Resolved Ultra Photoelectron Spectroscopy.

During my postgraduate studies and postdoctoral research work, I have set up and carried out research in four different synchrotron radiation sources around the world, e.g., CRCL lab. Daresbury, Warrington, Cheshire, UK (1991-1996), Synchrotron Radiation Research Center (SRRC), Hsinchu, Taiwan, R.O.C (1996-1999), Berlin Electron Storage Ring Company for Synchrotron Radiation (BESSY II) (2000) and Advance Photon Sources (APS), Chicago, USA (2001-2004).

I have 18 research publications including 3 manuscripts in preparation, 15 oral presentations and eight conference presentations in national and international arena. In addition, 10 international conferences were attended around the world.

During my career, I have used different sample preparation methods: single and polycrystals and thin films (nano-scale) growing techniques such as solid state flux and traveling solvent floating zone method (TSFZ), MBE and EXCLAB. Sample investigations were carried out for small molecules and determination of their particle size, textures, morphology, chemical composition, valence and oxidation states, molecular weight, physical, electronic, magnetic and surface properties, atomic, molecular, electronic structures, as well as their crystal structures. Therefore, by using above mentioned technical expertise, I would be able to grow single crystals and thin films, synthesize different materials, process and characterize advanced ceramic, superconducting and semiconducting materials (single crystals, thin films, interfaces and epitaxial growth), nano-particles, and elucidate their crystal and electronic structure as well as environmental chemistry.

Hence, being a multidisciplinary Research Scientist, I have intensive training and expertise on set-up and operating different equipments, performing experiments, data analysis, writing reports and proposals, preparing manuscripts, presenting papers and

delivering seminars nationally and internationally. I have experience in teaching and supervising undergraduate and post-graduate students in their research work and mentoring technical staff as well as proposal writing.

I am a Citizen of Canada (**working in USA as an O-1 Visa**), willing to relocate and believe that I have good communication and written skills and enjoy working in team environment as well as independently. I feel that the combination of my professional and academic experiences in multidisciplinary field and familiarity with good manufacturing and laboratory practices (GMP/GLP), computer literacy and experiences, learning attitude and quick ability to learn, hard working, motivated, dynamic personality, able to fulfill dead line, ability to take new challenges and solve problems during the work, Ph. D. degree in chemistry, and strong organizational skills, would allow me to make a valuable contribution in research and development of your organization / company / institution.

During my work, I have carried out work independently and also in a team environment. I have also experiences in cost effective design and management of research project.

From the above discussion, it is clear that I have good academic and professional experience in multidisciplinary fields and I am confident that I will be able to use my experience and knowledge to achieve goal of your research organization.

EDUCATION:

1992-1996

Ph. D. (Doctor of Philosophy), Department of Chemistry, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK.

Thesis Title: Surface Chemistry of High Temperature Superconducting Oxides.

1991-1992

M. Sc. (By Research), Department of Chemistry, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK.

Thesis Title: Surface Chemistry of High Temperature Superconducting Oxides.

WORK EXPERIENCES:

March 2005- Present:

Position: Chief & Lead Research Scientist

Address: Natural State Research (NSR) Inc., 37 Brown House Road, Stamford, CT 06902, USA.

Project: Waste conversion into Energy / Fuel, especially recycling Plastics, Municipal Solid Wastes (MSW) and convert them into Fuel.

Sample Characterization Techniques: Elemental Analysis (Exeter Analytical), Gas Chromatography (GC) /Mass Spectroscopy (MS), Thermal Gravimetric Analysis (TGA),

Dr. Moinuddin Sarker

Differential Thermal Analysis (DTA), Differential Scanning Calorimetry (DSC) and Atomic Absorption Spectroscopy (AAS) and other analytical tools.

May 2004-December 2004

Position: Senior Research Scientist (Professor Research # 2)

Address: Department of Chemistry, Sherbrooke University, Quebec, J1K 2R1, Canada

Project: The effect of Nano-scale structural and compositional heterogeneities on interfacial reactivity and transport in/on mixed ices with environmental pertinent compositions.

Sample Preparation: Molecular Beam Epitaxy (MBE).

Sample Characterization Techniques: SEM, TEM (Cryogenic), FTIR, QMS, Laser, XPS as well as XAFS techniques.

November 2001 – April 2004

Position: Post Doctoral Research Scientist

Address: Department of Physics, Simon Fraser University (SFU), British Columbia, V5A 1S6, Canada.

Project: Project was involved with the determination of toxic metal oxides in Oyster and Flocc from Boundary Bay beach, BC in Canada. The samples were analyzed by using Synchrotron Radiation such as XAFS and Micro-probe XAFS and Solid State Techniques e.g. SEM, XRF, XRD and TEM.

Sample Preparation: Freeze dried samples obtained from Department of Biology at the SFU.

During my tenure at Simon Fraser University I worked also on Au/Pd/Fe/GaAs thin films by MBE and samples studies were involved by using XAFS techniques.

November 2000 – October 2001

Position: Post Doctoral Research Scientist

Address: Department of Solid State Physics, University of Groningen, Nijenborg 4, 9747, AG Groningen, the Netherlands.

Project: Investigation of Oligo Polymer (Polythiopenes), C₆₀ and other Organic Materials for using Laser diode.

Sample Preparation Techniques: Molecular Beam Epitaxy (MBE) and Annealing in UHV.

Sample Characterization Techniques: AFM, STM and Optical Absorption Spectroscopy (OAS).

January 2000 – October 2000

Position: Post Doctoral Research Fellow

Address: Wilhelm-Ostwald-Institut of Physical and Theoretical Chemistry, Department of Chemistry & Mineralogy, University of Leipzig, Linnestr.2, D-04103 Leipzig, Germany. **Prof. Dr. Wilhelm Ostwald had been awarded for Nobel Prize in Chemistry on 1909, who was a Professor and Researcher of Chemistry Department in Leipzig University**

Project: Investigation of Oxidation of a ZnS deposition on GaP(001) Substrate.

Sample Characterization Techniques: MBE and ESCLAB

Sample Characterization Techniques: XPS, AES, XPD, ARUPS, LEED, AFM and STM techniques and Synchrotron Radiation Source (BESSY II) in Berlin, Germany.

June 1997-1999

Position: Post Doctoral Research Associate

Address: Department of Physics, National Tsing Hua University, Hsinchu, Taiwan.

Project: Synthesis and determination of Physical Properties of New Superconducting / Magnetic System (Single and Polycrystalline). Especially, the project involved the synthesis and the growing of single crystal and poly crystal ($\text{Bi}_2\text{Sr}_2\text{Ca}_{1-x}\text{R}_x\text{Cu}_2\text{O}_{8+d}$ (R= Pr, Gd and Y doped) and Bi-doped $\text{Gd}_{2-x}\text{Bi}_x\text{CuO}_4$ Cuprates) by Solid State Reaction / Self-Flux and Traveling Solvent Floating Zone (TSFZ) methods.

Sample Characterization Techniques: TGA/TDA, SEM, EDAX, XRD, SQUIDS at the Department of Physics and UPS and EXAFS at the National Synchrotron Radiation Research Center (NSRRC), Hsinchu, Taiwan.

June 1996-June 1997

Position: Post Doctoral Research Fellow

Address: National Synchrotron Radiation Research Center (NSRRC), Science-Based Industrial Park, Hsinchu & Institute of Atomic Molecular Sciences (IAMS), Academia Sinica, Taipei, Taiwan. **The President of Acedemia Sinica is Prof. Dr. Yuan-Tseh Lee, who had been awarded for Nobel Prize in Chemistry on 1986.**

Project: Design and Construct beam line of Synchrotronised Soft X-ray Scanning Photoemission Spectromicroscopy (PESM). Especially this -involved design and construction of the beam line for X-ray photoemission microscopy (PEMS) combined with XPS, UPS, AES, STM and AFM techniques for analysis of semiconductors, metals and metal clusters.

August-December 1999

Program Manager (Research and Development Division)

Organization for Social Development and Research (OSDER), Dhaka, Bangladesh

Responsibility: Writing proposal and conducting research for Non-Government Organization and dealing with foreign donor countries for helping disabled peoples, eliminating poverty and creating empowerment of destitute and oppressed women in Bangladesh.

Computer Experiences:

I have used Personal Computer and Macintosh to analysis samples by using different software's:

For Personal Computer (PC):

1. AutoCAD 13 and 14, TOPDRAW (For Design)
2. Origin 4.1, 5.0, and 6.1 (Data Analysis)
3. Unifit 3.1 (Data Analysis),
4. EXCURVE92 and 98 (For Data Analysis)
5. APL (Computer Language)
6. WinXAS 2002 (Data Analysis)
7. PCW /Crain03 (Crystal Determination)
8. Feef7, 8 for EXAFS data Analysis
9. Principal Component Analysis (PCA)
10. Labview and Matlab
11. Gaussian 98, 2002

Macintosh Computer (Mac Power) (especially Microsoft word 95, 98 and 2000)

1. Aldus (For Drawing)
2. Chemdraw (For Drawing)
3. Igor (For Graphing and Data Analysis)
4. MacDraw (For Drawing)
5. Super paint (For Drawing)
6. Kaildagraph (For Data Analysis)
7. Cricket graph and etc. (For Data Analysis and Graphing)

Experimental Techniques:

UHV and Surface Science Techniques:

1. X-ray Photoelectron Spectroscopy (XPS)
2. Auger Electron Spectroscopy (AES)
3. Angle Resolved Ultra Photoelectron Spectroscopy (UPS or ARUPS)
4. Lower Electron Energy Diffraction (LEED)
5. X-ray Photoelectron Diffraction (XPD)

Microscopic Techniques:

1. Scanning Electron Spectroscopy (SEM) (Cryogenic and Room Temperature)
2. Transmission Electron Spectroscopy (TEM) (Cryogenic and Room Temperature)
3. Atomic Force Microscopy (AFM)

Synchrotron Radiation Techniques:

1. Resonant Photoemission Spectroscopy (RPES)
2. Angle Resolved Ultra Photoemission Spectroscopy (ARUPS)
3. X-ray Absorption Fine Spectroscopy (XAFS)
4. X-ray Micro-probe X-ray Absorption Spectroscopy (XAFS)

Analytical and Solid State Techniques:

1. X-ray Diffraction (XRD)
2. Energy Dispersive Analysis X-ray (EDAX)
3. X-ray Fluorescence Spectroscopy (XRFS)
4. Quadruple Mass Spectroscopy (QMS)
5. FTIR (Infrared)
6. Laser (Nd-YAG Laser)
5. Thermo-gravimetric Analysis (TGA)
6. Differential Thermal Analysis (DTA)
8. Differential Scanning Calorimetry (DSC)
9. Elemental Analysis (Exeter Analytical)
10. Gas Chromatography (GC)

Magnetic Measurement Techniques:

1. Superconducting Quantum Interface Devices (SQUIDs)
2. Vibrating Sample Magnetization (VSM)

Optical Techniques:

1. Optical Absorption Spectroscopy (OAS)

Worked in Synchrotron Radiation Centers:

1. CRCL lab. Dares bury, Warrington, Cheshire, UK (1991-1996)
2. Synchrotron Radiation Research Center (SRRC), Hsinchu, Taiwan, (1996-1999)
3. Berlin Electron Storage Ring Company for Synchrotron Radiation (BESSY II) (2000)
4. Advance Photon Sources (APS), Chicago, USA (2001-2004).

PROFESSIONAL MEMBERSHIP:

1. American Chemical Society (ACS), USA
2. American Physical Society (APS), USA
3. Canadian Society for Chemistry (CSC), Canada
4. Chemical Institute of Canada (CIC), Canada
5. Bangladesh Chemical Society (Life Member), Dhaka, Bangladesh.
6. Advanced Photon Sources User Group (APS), Chicago, USA
7. Royal Society of Chemistry (RSC), UK (**Under Consideration**)
8. Canadian Institute for Neutron Scattering (CINS), Ottawa, Canada.
9. UMIST Alumni Association, UMIST, Manchester, UK
10. Chittagong University Alumni, Chittagong, Bangladesh.

LIST OF PUBLICATIONS:

1. Surface Chemistry of High Temperature Superconducting Oxides.

M. M. Sarker, M. Sc. Thesis, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK, 1992.

2. Surface electronic structure of complex B-metal Perovskites.

W.R. Flavell, D.R.C Hoad, M. Mian, B.C. Morris, A.J. Roberts, **M. M. Sarker**, P.L. Wincott, D. Teehan and P. Bailey, DRAL Annual reports 1993/94

3. Photoemission study of the electronic structure of $\text{BaPb}_{1-x}\text{Bi}_x\text{O}_3$.

W.R. Flavell, D.R.C Hoad, M. Mian, B. C. Morris, A.J. Roberts, **M. M. Sarker**, P. L. Wincott, D. Teehan, D. S. Law and Changkang Chen, Physics C, 235-240, (1994), pp 1041-1042.

4. Surface electronic structure of complex B-metal perovskites.

W.R. Flavell, D.R.C Hoad, M. Mian, B. C. Morris, A.J. Roberts, **M. M. Sarker**, P. L. Wincott, D. Teehan, and P. Bailey, Surface Science, 307-309, (1994), pp1166-1171.

5. Metal-to-non-metal transitions in complex oxides.

W.R. Flavell, A.G. Thomas, **M. M. Sarker**, M. Mian, J.F. Howlett, H.R Aghabozorg, Z. Hashim, S. Squire, J. Hollingworth, S. Warren, P.L. Wincott, L. Leonyuk, D. Teehan, S. Downes and K.C. Cheung, DRAL Annual reports 1994/95.

6. Resonant Photoemission from complex cuprates and nickelates.

W.R. Flavell, J. Hollingworth, J.F. Howlett, A.G. Thomas, **M. M. Sarker**, S. Squire, Z. Hasim, M. Mian, P. L. Wincott, D. Teehan, S. Downes and F.E. Hancock, The Journal of Synchrotron Radiation, 2, (1995), pp 264-271.

7. Angle-resolved photoemission of Y-doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$.

W.R. Flavell, A.G. Thomas, S. Squire, M. Mian, **M. M. Sarker**, J. F. Howlett, Z. Hashim, H.R. Aghabozorg, P.L. Wincott, S. Downes and L. Leonyuk, Surface Science, 352-354, (1996), pp 788-792

8. Surface Chemistry of High Temperature Superconducting Oxides.

M. M. Sarker, Ph. D. Thesis, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK, 1996.

9. Electronic Structure, Reactivity and Solid State Chemistry of $\text{La}_{2-x}\text{Sr}_x\text{Ni}_{1-y}\text{Fe}_y\text{O}_{4+d}$.

J.F. Howlett, W.R. Flavell, A.G. Thomas, J. Hollingworth, S. Warren, Z. Hashim, M. Mian, S. Squire, H. R. Aghabozorg, **M. M. Sarker**, P.L. Wincott, D. Teehan, S. Downes, D. S-L. Law and F.E. Hancock, Faraday Discuss., 105, (1996), pp337-354.

10. EXAFS Studies of $\text{SrSn}_{1-x}\text{Sb}_x\text{O}_3$ and $\text{BaPb}_{1-x}\text{Bi}_x\text{O}_3$.

W. R. Flavell, M. Mian, A.J. Roberts, J.F. Howlett, **M. M. Sarker**, P.L Wincott, R. L. Bilsborrow and Gert van Dorssen, J. Mater. Chem., 7(2), (1997), pp 357-364.

11. Anomalous Magnetic properties of the 2212 type rare earth Cuprates $\text{Bi}_2\text{Sr}_2\text{RCu}_2\text{O}_{8+d}$ (R= Pr, Gd and Y).

T. I. Hsu, Y.Y. Hsu, J.U. Lin, Y.H. Toh, **M. M. Sarker**, and H. C. Ku, Proceeding of the 12th Conference on Magnetic and Magnetism Technology, Taiwan, July 1997.

12. Review of Application of High Temperature Superconductors.

M. M. Sarker and W. R. Flavell, J. of Superconductivity, 11, (1998), pp209-211.

13. Magnetic Properties of Bi-doped $Gd_{2-x}Bi_xCuO_4$ Cuprates.
H.C. Ku, H. M. Luo, Y. Y. Hsu, **M. M. Sarker** and T. J. Lee, J. of Appl. Physics, 85, (1999) pp5362-5364.

14. XAFS Study of Iron Oxides in Oyster Digestive Processes
M. M. Sarker, R. A. Gordon, E. D. Crozier, L. Bendell-Young, G. Kruzynski, Advance Photon Sources, Argonne National Laboratory Activity Report 2001.

15. Metal Ion in Oyster Studies by XAFS.
M. M. Sarker, R. A. Gordon, E. D. Crozier, L. Bendell-Young, G. Kruzynski, (Manuscript in Preparation)

16. Heavy Metal Ion in Floc Studies by XAFS
M. M. Sarker, R. A. Gordon, E. D. Crozier, L. Bendell-Young, G. Kruzynski, (Manuscript in Preparation).

17. Au LIII edge of Au/Pd/Fe/GaAs thin films studies by XAFS
M. M. Sarker, R. A. Gordon, E. D. Crozier, P. Budnik (Manuscript in Preparation).

18. Investigation of Oxidation of a ZnS Deposition on GaP(001) Substrate
M. M. Sarker, A. B. Preobrajenski, K. Grebhardt, T. Chassé and R. Szargan (manuscript in preparation).

ORAL PRESENTATIONS:

1. Surface Chemistry of High Temperature Superconducting Oxides.
Department of Chemistry, UMIST, Manchester, UK, 11th February 1993.

2. Surface Chemistry of High Temperature Superconducting Oxides.
Department of Chemistry, UMIST, Manchester, UK, 11th February 1995.

3. Surface Electronic Structure and Solid State Chemistry of Y-Doped Bi-2212 System.
Synchrotron Radiation Research Center (SRRC) at Hsinchu, Taiwan, Republic of China, 25th February 1997.

4. X-ray Absorption Studies on $Bi_2Sr_2Ca_{1-x}Y_xCu_2O_{8+d}$.
The Annual Meeting of the Chinese Physical Society, at the National Central University, Chung-Li, Taiwan, Republic of China, 5-6th Feb., 1998

5. X-ray Absorption Studies on the $Bi_2Sr_2Ca_{1-x}Y_xCu_2O_{8+d}$ System.
Magnetic and Magnetic Technology at the National Tsing Hua University, Hsinchu, Taiwan, Republic of China, July 9th-11th, 1998.

6. X-ray Absorption Studies on the High Temperature Superconducting Oxides.
North South University, Kamal Ataturk Avenue, Dhaka, Bangladesh, 19th August 1999.

7. EXAFS Studies of the High Temperature Superconducting Oxides.
Wilhelm-Ostwald-Institute of Physical and Theoretical Chemistry, Department of Chemistry & Mineralogy, University of Leipzig, Germany, February 21, 2000.

8. Characterizations and Modification of Epitaxial ZnS Layers.

X. Workshop des Grauiertenkollegs (GK) “ Physikalische Chemie der Grenzflächen, in der Wilhelm-Ostwald-Gedenkstätte, Grossbothen, Germany, March 31 –April 1, 2000.

9. Electronic Structure Studies of Cuprate Superconductors by Resonant Photoemission
Wilhelm-Ostwald-Institute of Physical and Theoretical Chemistry, Department of Chemistry & Mineralogy, University of Leipzig, Germany, May 08, 2000.

10. Characterizations and Modification of Epitaxial ZnS Layers
Department of Chemical Engineering, University of Amsterdam, the Netherlands, 5th June 2000.

11. Characterization of Epitaxial Growth and Interface Structure of ZnS on GaP(001) Substrate.
Institute of Physical and Electrochemistry, Department of Chemistry, University of Hanover, Germany, 30th June 2000.

12. Modifications and Characterization of Epitaxial ZnS Layers on GaP (001) Substrate
Solid State Physics Department, University of Groningen, the Netherlands, 3rd July 2000.

13. Investigation of Oxidation of a ZnS Deposition on GaP (001) Substrate
Wilhelm-Ostwald-Institute of Physical and Theoretical Chemistry, Department of Chemistry & Mineralogy, University of Leipzig, Germany, October 30, 2000.

14. Introduction of Quantum Dots
Solid State Physics Department, University of Groningen, the Netherlands, 19th April 2001.

15. Introductions and Fabrication of Quantum Dots
Department of Physics, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK, 9th October 2001.

16. Investigation of Oxidation of a ZnS Deposition on GaP (001) Substrate
Membrane Reactor Technology Inc. Stadium Road, UBC, BC, Canada, 14th February 2003.

17. Scanning Micro-probe XAFS Study of Iron Oxides in Oyster Digestive Processes.
Department of Chemistry, University of Sherbrooke, Quebec, Canada on 15th December 2003.

18. Waste Conversion (Plastics Converted in to Fuel), Natural State Research, Inc, Stamford, CT, USA on 1st September 2005.

OTHER INTERNATIONAL CONFERENCES ATTENDED:

1. Solid State Chemistry and Superconductivity International Conference at Department of Chemistry, King’s College, University of Aberdeen, Scotland, UK, 15th-17th July 1992.

2. 13th European Conference on Surface Science at Department of Physics, University of Warwick, Warwick, Coventry, UK, 30th August-4th September, 1993.

3. 4th International Conference on Materials and Mechanism of Superconductivity High-Temperature Superconductors at Grenoble, France, 5th-9th July 1994. **The Scientists and Researchers from 40 countries around the world were participated at the conference.**
4. 1996 Synchrotron Radiation Research Center (SRRC) User's Meeting at Synchrotron Radiation Research Center (SRRC), Hsinchu Science-Based Industrial Park, Hsinchu, Taiwan, Republic of China, 13th-14th November 1996.
5. Taipei International Symposium on Surfaces and Thin Films at Institute of Atomic Molecular Sciences (IAMS), Taipei and Synchrotron Radiation Research Center (SRRC), Hsinchu, Taiwan, Republic of China, 25th-28th March, 1997.
6. Taiwan International Conference on Superconductivity and 5th Workshop on Low Temperature Physics at Department of Physics, Academia Sinica, Taipei, Taiwan, Republic of China, 13th-16th August, 1997.
7. The Second Joint Meeting of the World-Wide Chinese Physicist in Honour of Prof. a-You Wu on the Occasion of His 90th Birthday at Academia Sinica, Taipei, Taiwan, Republic of China, 11th -15th August, 1997. **There are couples of Chinese Nobel Prize Winners in Physics and Chemistry was been in attendance at the conference.**
8. AOFA-11 Conference at the Wilhelm-Ostwald-Institute of Physical and Theoretical Chemistry, Department of Chemistry & Mineralogy, University of Leipzig, Germany, September 24-28, 2000.
9. Annual FOM meeting at the Veldhoven, Eindhoven, The Netherlands, December 19-20, 2000.
10. Bi-annual Material Science Center Vlieland Meeting, Vlieland, The Netherlands, 22nd-24th April 2001.
11. Corporate / Business Social Responsibility (www.bsr.org) BSR 2005 Annual Conference, Omni Hotel, Washington DC, USA, 1st -4th November 2005. **There are 1500 Chief Executives from USA and around the world including World Bank President Mr. Paul Wolfowitz was participated at the conference.**

COURSES ATTENDED

1. Basic Vacuum Technology Course for New Postgraduate Students in Surface Sciences at the University of York, York, UK, November 1991.
2. Introduction of Electronics Course for New Post Graduate Students at Department of Chemistry, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK, October, 1991.
3. Language Programming (C++ and Java) at the Department of Mathematics and Computer Science, University of Groningen, Groningen, The Netherlands, April-October 2001

4. Advanced Algorithms at the Department of Mathematics Computer Science, University of Groningen, Groningen, The Netherlands, April-October 2001.
5. Thermal Analysis Course by TA Instrument held in Doubletree Hotel, Somerset, NJ, USA on 20th May 2005.
6. Occupational Safety and Health Authority (OSHA), Ten-hour General Industry Outreach Training Program held in Natural State Research, Inc. Stamford, CT, USA on 8-9th November 2005.

AWARDED FELLOWSHIP AND SCHOLARSHIPS:

During my school education I have received a scholarship for my brilliant result, which was exemption of my tuition fees, and support for buying books and other expenditures.

1993-1994

UMIST Overseas Student Fellowship, UMIST, Manchester, UK.

1994-1995

Charles Wales Overseas Scholarship, Education Ministry of Bangladesh, Dhaka, Bangladesh and Bangladesh High Commission in London, UK

1996-1997

National Science Council Research Fellowship, Taiwan, Republic of China (R.O.C).

1997-1999

National Science Council Research Fellowship, Taiwan, Republic of China (R.O.C).

January, 2000- October 2000

DFG (German Physical Society) Fellowship, Leipzig, Germany.

2000

ICSC-World Fellowship, ICSC - World Laboratory, Chemin de, Mornex, 32 CH-1003 Lausanne, SWITZERLAND.

During my tenure in Leipzig University, Germany on 2000, I had been granted for Postdoctoral Fellowship position from ICSC- World Laboratory in Switzerland and research work would have done under the supervision and guidance of **Prof. Kai M. B. Siegbahn (Nobel Prize Winner), who had been awarded for Nobel Prize in Physics on 1981** and executive director of World Laboratory in Lausanne, Switzerland and working in Uppsala University, Sweden. Especially Prof. K. M. B. Siegbahn had decided proffer the fellowship for me. This is a world recognized prestigious fellowship and acknowledgment for extra ordinary accomplishment in the field of surface and material sciences.

There are five Noble Prize Winners in Chemistry and Physics are founding Scientist of World Laboratory and some reputed and world distinguished Professors / Scientists / Researchers are involved with World Laboratory. Professor A. Salam (**Nobel Prize Winner in Physics on 1979**) was too founding scientist of World Laboratory.

OTHER SCIENTIFIC DUTIES (During PhD Studies)

1991-1996

Group Monitor for SEM and EDAX at Department of Chemistry, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK.

1992-1996

Supervising the M. Sc. (Course) Students for their practical works at Department of Chemistry, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK.

SOCIAL ACTIVITIES (During Student Life)

I was a house tutor in School, College and University level, Chittagong and Dhaka, Bangladesh.

I have organized social activities and events such as departmental dinners, picnics, seminars and sports tournaments. I was an executive member of the graduating ceremony in 1989 and also Assistant Editor of the souvenir magazine Anurunon in 1990.

I was foundation president of the Daudkandi Upazilla Student Society at Chittagong University, Chittagong, Bangladesh.

OTHER ACTIVITIES:

1. **Chief Executive Officer and Managing Director**, Noorzahan Kamal Web Technology (NKWT) in Dhaka, Bangladesh. NKWT (www.nkwebtechnology.com) is Information and Communication Technology for Home and Abroad and it involve e-commerce, web design, hosting and domain registration, Internet consultancy, Printing, Composing, Professional Consultancy, Immigration consultancy, travel and tourism as well as home delivery gift services.

2. Founding President of Dr. Moinuddin Sarker Foundation (www.moinuddinfoundation.org) in Daudkandi, Comilla, Bangladesh. Moinuddin Foundation is helping and providing Scholarship for poor and merit students to buying their books and other expenditure in Junior High School level. It is a monthly based scholarship and providing free computer in junior high school level to learn and get basic idea of computer. It has also number of different project to be implemented including helping and providing support for destitute and oppressed women, widows, orphanages, disable peoples, vocational training, free treatment, free medicine (minimum) and micro-credit loan (interest free) and lot of other projects.

REFEREES:

1. Prof. Dr. E. Daryl Crozier

Department of Physics
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