

Biographical Sketch of Professor RIM Aminur Rashid

I, Rafiqul Islam Muhammad Aminur Rashid, am born in Bogra, Bangladesh in 1945. I had my education in Bogra, Dinajpur and Dhaka and received B.Sc. (Honours) and M.Sc. degrees in Physics from the University of Dhaka in 1965 and 1966 respectively. Subsequently, I joined the Physics Department, University of Dhaka in 1967 as a Lecturer and was later awarded a UNESCO Fellowship in 1968 to pursue higher studies at the University of Kent at Canterbury, England from where I obtained my Ph.D. degree in Theoretical Physics in 1972. On my return from abroad in 1972, I resumed my duties as an Assistant Professor of Physics at the University of Dhaka and in 1975 was appointed as an Associate Professor in the Physics Department. In April 1987, I was appointed a Professor in the Physics Department of the University of Dhaka and in 1993 was appointed a Selection Grade Professor. I am working as the Vice-Chancellor of the Bangladesh Open University since January 25, 2009.

During my academic career, I was bestowed with a number of Fellowships, Scholarships, Prizes and Honors. In 1975 – 1976, I was at the Institute of Theoretical Physics, Chalmers University, Goteborg, Sweden on a SIDA Fellowship. As a Commonwealth Academic Staff Fellow I worked at the University of Oxford, England during 1984-85. I have attended a number of International Conferences, Summer Schools and Workshops abroad. I also have visited the International Centre for theoretical Physics, Trieste, Italy several times as Associate Member, Senior Associate Member and Senior Research Fellow of the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

I was the Dean (2003-2006) Faculty of Science, University of Dhaka and was the Chairman of the Physics Department (2005-2008), University of Dhaka. I was elected President twice (2000, 2001) and elected member, Vice-President of the Executive Committee of the Dhaka University Teachers' Association on several occasions as well as elected President twice (2000-2001) of the Federation of Bangladesh University Teachers' Associations and member on several occasions. I was also a member of the National Site Selection Committee as well as the National Committee for the formulation of regulations and curricula for Twelve Science & Technology Universities established (1996-2001) by the Government of Bangladesh in each of twelve Old Greater Districts (where there is no University). I was also the Secretary of the Bangladesh Physical Society during 1979-1981 and was elected president (2000, 2001) of the Bangladesh Physical Society. I was a Visiting Professor at the Universiti Kebangsaan, Malaysia in March 2007. I am now a Fellow of the Bangladesh Physical Society, and a Life Member of Bangladesh Mathematical Society and Bangladesh Association for the Advancement of Science. I am also member of other International Physical Societies including the Asian Physical Society. I also acted as Editor and Member of Scientific Journals. I have been working as member of various National and other Committees on matters relating to Education, Science and Technology. I was the Provost (1998-2001) of the Salimullah Hall, University of Dhaka and elected member of the Syndicate (1998-2001) and Senate of the University of Dhaka on several occasions. I have been associated with organization of a number of Conferences and Workshops as Chairman, Secretary and Member as well as directed International Physics Summer Schools at home and abroad and these had provided me opportunities to involve the Physics Professionals in Bangladesh with the International Physics Community.

During my professional career, I specialized in the fields of solid and liquid state physics and published more than fifty original articles in the international and national journals. My work on the Superfluid Bose system nowadays is well-known as the "Evans-Rashid Transition" in the literature.

I am married and have two sons.

Professor RIM Aminur Rashid

Vice Chancellor, Bangladesh Open University, Gazipur, Bangladesh

CURRICULUM VITAE

1. Name in Full : **RAFIQUL ISLAM MUHAMMAD AMINUR RASHID**
2. Father's Name : Late Mr. Erfanullah Talukder
3. Mother's Name : Late Mrs. Rowshan Ara Khatun
4. Present Address : Vice Chancellor
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6. Home Address : Vice Chancellor's Residence
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Board Bazar, Gazipur-1705.

Telephone: +880-2-9291171
7. Date of Birth : February 13, 1945
8. Place of Birth : Bogra, Bangladesh
9. Marital Status : Married
10. Number of Children : Two
11. Nationality : Bangladeshi
12. Passport No. : C 0174483
13. Place of Issue : Dhaka, Bangladesh
14. Date of Issue : June 30, 2008

15. Academic Qualification :

<u>School/College/Board/University</u>	<u>Year Attended</u>	<u>Degrees/Certificates</u>
Dinajpur Zilla School, EPSE Board, Dhaka	- 1960	Matriculation
S.N. College, Dinajpur, University of Rajshahi	1960-1962	I.Sc.
Physics Department, University of Dhaka, Bangladesh	1962-1965	B.Sc. (Honours) in Physics
Physics Department, University of Dhaka, Bangladesh	1965-1965	M.Sc. in Physics
Physics Department, University of Kent At Canterbury, England	1968-1972	Ph.D. in Theoretical Physics

16. Field of Specialization : Solid and Liquid State Physics
Many-Body Theory

17. Research Interests : Solid and Liquid State Physics Including Superfluid Helium, Classical Liquids, Metals and their Mixtures, Magnetism, Many-Body Theory

18. Details of Former and Present Position and: **Professor**
1987 (April)- Onwards
Professor of Physics
University of Dhaka
Dhaka, Bangladesh
Selection Grade Professor Since 1993
Associate Professor
1975-1987 (April)
Associate Professor of Physics
University of Dhaka, Bangladesh
Assistant Professor
1972-1975
Assistant Professor of Physics
University of Dhaka, Bangladesh
Lecturer
1967-1972
Lecturer in Physics
University of Dhaka, Bangladesh

19. Teaching Experience : Teaching basic and advanced physics in the undergraduate as well as post-graduate levels, Laboratory Supervisions, Supervising research students

20. Academic Position : **Dean**
2003-2006
Faculty of Science, University of Dhaka
Provost
1998-2001
The Salimullah Hall, University of Dhaka

Chairman

2005-2008

Physics Department, University of Dhaka

Vice-Chancellor

Since January 25, 2009

Bangladesh Open University

21. Organizational Experience : As Chairman, Secretary and Member of various departmental committees on matters relating to courses, examinations, students counseling and guidance, and organizing International Conferences and Workshops as chairman, secretaries and members as well as directed International Summer School at home and abroad. Acted as an editor and a member of editorial board of Scientific Journals on several occasions.

Elected Member of the Syndicate

1998-2001

University of Dhaka

Elected Member of the Senate

University of Dhaka

for several times and currently been reelected as member of the Senate of the University of Dhaka for 3 years.

22. Awards

: **UNESCO Fellow**

1968-1972

at the University of Kent, Canterbury
England

SIDA Fellow

1975-76

at the Institute of Theoretical Physics
Chalmers, Goteborg, Sweden

Commonwealth Academic Staff Fellow

1984-85

at the University of Oxford, Oxford, England

Junior Associate Member

1986-1991

at the International Centre for Theoretical Physics, Trieste,
Italy

Senior Research Fellow

1988-89

at the International Centre for Theoretical Physics, Trieste,
Italy

Associate Member

1993-2003

at the International Centre for Theoretical Physics, Trieste,
Italy

Senior Associate Member

2003-2008

at the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy

Visiting Professor

March 2007

at the Universiti Kebangsaan, Malaysia

23. Summer School/Conference : Attended several International Conferences, Summer Schools and Workshops held in various countries

24. Professional Societies and:
Bodies

Fellow

Bangladesh Physical Society

Life Member

Bangladesh Physical Society

Bangladesh Mathematical Society

Bangladesh Association for the Advancement of Science

Member

Asian Physical Society

Secretary

1979-1981

The Bangladesh Physical Society

President

2000, 2001

The Bangladesh Physical Society

Member of the National Site Selection Committee as well as Member of the National Committee for the formulation of regulations and curricula etc. for twelve Science and Technology Universities established by the Government of Bangladesh in each of the twelve old Greater Districts (where there is no University).

1996-2001

Has been working as **member of various National and Other Committees on matters relating to Education, Science and Technology.**

President

Dhaka University Teachers' Association

Twice : 2000, 2001

Was elected **Member and Vice President of the Executive Committee**, Dhaka University Teachers' Associations on Several occasions.

President

The Federation of Bangladesh University Teachers' Association

Twice : 2000, 2001

Was elected **Member of the Executive Committee** of the Federation of Bangladesh University Teachers' Associations on Several occasions.

Was the Assistant Secretary as well as Acting Secretary and the Vice President of the Fazlul Huq Hall Union, University of Dhaka, during 1963-1964 and 1965-1966 respectively

List of Publication
of
Dr. R.I.M. Aminur Rashid
Professor of Physics
University of Dhaka
Dhaka-1000
Bangladesh

1. “Some Conserving Approximation within the Pairing Theory of Superfluids” Ph.D. Thesis, University of Kent at Canterbury, U.K. (1972) by **R.I.M.A. Rashid**
2. “A Conserving Approximation Evaluation of the Superfluid Density within the Pair Theory of Superfluids”, Jour. Low Temp. Phys. (U.S.A.) 11, 93(1973) by W.A.B. Evans and **R.I.M.A. Rashid**
3. “Superfluid Density in Pairing Theory of Superfluidity” in Superfluidity Vol. 1 101 (1974), Eds. K.D. Timmerhaus, W.J., O’Sullivan and E.F. Hammel (Plenum Press, N.Y., U.S.A.) by W.A.B. Evans and **R.I.M.A. Rashid**
4. “The Pair Model of Bose Superfluids and the f-sum Rule”, Int. Symposium on Stat. Phys. University of Calcutta, India (1974) by **R.I.M.A. Rashid**
5. “The Density –Density Correlation Function Within the Pairing Theory of Bose Superfluids”, Phys. Symposium (dedicated to Professor S.N. Bose), University of Dhaka, Bangladesh (1974) by **R.I.M.A. Rashid**
6. “Local Spin Fluctuation in RhFe Alloys”, Phys. Symposium (Dedicated to Professor S.N. Bose), University of Dhaka, Bangladesh (1974) by M. Ahmed, **R.I.M.A. Rashid** and A.M. Khan
7. “Dispersion Relation of Simple Liquids Within the Hartree Approximation” 2nd BASS Conf., Mymensingh, Bangladesh (1977) by **R.I.M.A. Rashid**, J. Rahman, M. Ahmed and A.M. Khan
8. “S (q, ω) for Superfluid Helium”, 2nd BAAS Conf., Mymensingh, Bangladesh (1977) by **R.I.M.A. Rashid**
9. “Excitation Spectrum of Liquids, Within the Harmonic Approximation”, Phys. Symposium, the Bangladesh Physical Society and University of Dhaka, Bangladesh (1979) by **R.I.M.A. Rashid**
10. “Pair Model of Bose Superfluids and the f-sum Rule Within the Quasiparticle Approximations.”, Dhaka University Studies B30, 77(1982) by **R.I.M.A. Rashid**
11. “Effect of Anderson Magnetic Impurities on Superconducting Alloys”, I.C.T.P. (Triestes, Italy) Internal Report, No. IC/83/56(1983) by M. Ahmed and **R.I.M.A. Rashid**
12. “Conserving Theory of Normal Quantum Liquids”, Ganit (Jour. Math. Soc. Bangladesh)4.

- 94(1985) by **R.I.M.A. Rashid**
13. "The Dynamical Structure Factor of Normal Quantum Liquids", Dhaka University Studies B33 59(1985) by **R.I.M.A. Rashid**
 14. "Pair Model of Bose Superfluid and Conserving Approximations", Dhaka University Studies B33, 73 (1985) by **R.I.M.A. Rashid**
 15. "Osmotic Pressure Related to Concentration Fluctuations with Application to Liquid Alkali Metals Alloys", Physics and Chemistry of Liquids (U.K.), 15, 155 (1986) by **R.I.M.A. Rashid** and N.H. March
 16. "Some Tests of a Thermodynamically Consistent Decomposition of Fluid Direct Correlation Function", Physics and Chemistry of Liquids (U.K.), 15, 1 (1986) by **R.I.M.A. Rashid**, G. Senatore and N.H. March
 17. "Concentration Fluctuations in Binary Mixtures of Simple Liquids", Dhaka University Studies B34, 117 (1986) by **R.I.M.A. Rashid**
 18. "Single-phonon in Superfluid Helium Four", Dhaka University Studies 34, 175 (1986) by **R.I.M.A. Rashid**
 19. "Hall Effect on Hydromagnetic Free Convection Flow Along a Porous Flat Plate with Mass Transfer", Jour. Phys. Soc. Japan 56, 97 (1987) by M. A. Hossain and **R.I.M.A. Rashid**
 20. "Temperature and Pressure Dependent Osmotic Pressure in Liquid Sodium-Cesium Alloys", Physics and Chemistry of Liquids (U.K.) 16, 259 (1987) by **R.I.M.A. Rashid**
 21. "Pairing theory of Bose Superfluid and the Generalized Condensation", Dhaka University Studies B36, 33 (1988) by **R.I.M.A. Rashid**
 22. "Vacancy Formation Energies in Close-packed Crystals Correlated with Melting Temperature via Thermodynamics and Liquid Structure", Physics and Chemistry of Liquids (U.K.) 19, 41 (1989) **R.I.M.A. Rashid** and N.H. March
 23. "The Nature of Condensation in Momentum Space for an Interacting Bose Liquid", Physics and Chemistry of Liquids (U.K.) 21, 73 (1990) by **R.I.M.A. Rashid**
 24. "The Thermodynamic and Structural Contributions to the Vacancy Formation Energies in Hot Rare Gas Solids", Bangladesh J.Sci. Res. 13(2), 217 (1995) by **R.I.M.A. Rashid**
 25. "A Computer Code for Pair Distribution Function for Hard Spheres", Dhaka University J.Sci. 43(2), 189 (1995) by G.M. Bhuiyan, M.A. Khaleque, G.M. Bhuiyan, **R.I.M.A. Rashid** and M.A. Satter
 26. "Application of Many-Body Potentials to Liquid Noble and Transition Metals", Jour, of Bang. Acad. of Sciences 19, 179 (1995) by M.A. Khaleque, G.M. Bhyiyan, **R.I.M.A. Rashid** and M.A. Satter
 27. "Calculations of S(q) for Liquid 3d Transition Metals", Physics and Chemistry of Liquids (U.K.) 30, 9 (1995) by M. A. Khaleque, G.M. Bhuiyan, **R.I.M.A. Rashid** and S.M.M. Rahman
 28. "The Role of Triplet Correction Function in Dense Fluids", Bangladesh J.Sci. Res. 14(1).

27(1996) by **R.I.M.A. Rashid**

29. "On the Roles of Interatomic Interactions and Coordination Number on Einstein Temperatures of 3d Transition Metals", Science and Technology, (Sultan Qaboos Univ. Oman) 2, 65 (1997) by M. A. Khaleque, G.M. Bhuiyan, **R.I.M.A. Rashid** and S.M.M. Rahman
30. "Application of N-Body Potentials to Calculation of Einstein Temperature", Dhaka University J.Sci. 45(1), 89 (1977) by M. A. Khaleque, G. M. Bhuiyan and **R.I.M.A. Rashid**
31. "VMHNC Calculation, of g(r) for Liquid Ni and Cu using Many-body Potentials", Physics and Chemistry of Liquids (U.K.) 35, 153 (1997) by G.M. Bhuiyan, M. A. Khaleque, **R.I.M.A. Rashid** and S.M.M. Rahman
32. "Calculation of Einstein Temperature and Thermodynamic Properties of Transition Metals. Bang Jour. of Scientific and Indus. Res. 33, 456 (1998) by A. Rahman, G.M. Bhuiyan, M.A. Khaleque and **R.I.M.A. Rashid**
33. "Investigation of Thermodynamic and Transport Properties of Liquid Transition Metals using Wills-Harrison Potentials", The Abdus Salam I.C.T.P. (Trieste, Italy) Internal Report No. IC/98/6(1998) by M.A. Khaleque, G.M. Bhuiyan and **R.I.M.A. Rashid**
34. "Liquid State Properties of Certain Noble and Transition Metals", The Abdus Salam I.C.T.P. (Trieste, Italy) Report No. IC/98/69(1998) by G.M. Bhuiyan, A. Rahman, M.A. Khaleque, **R.I.M.A. Rashid** and S.M. Mujibur Rahman
35. "Investigation of the Static and Dynamic Properties of Liquid Less Simple Metals", Phys. Stat. Sol. (Germany) (b)215, 987(1999) by F Zahid, G.M. Bhuiyan, S. Sultana, M.A. Khaleque, **R.I.M.A. Rashid** and S.M.M. Rahman
36. "Liquid State Structure of Some Noble and Transition Metals", Jour. Non-crystalline Solids, 250-252, (The Netherlands) 45 (1999) by G.M. Bhuiyan, A. Rahman, M.A. Khaleque, **R.I.M.A. Rashid** and S.M. Mujibur Rahman
37. "Calculation of Structure and Shear Viscosity for Less Simple Liquid Metals", Jour, Non-crystalline Solids (The Netherlands) 250-252, 107 (1999) by F. Zahid, G. M. Bhuiyan, M. A. Khaleque and **R.I.M.A. Rashid**
38. "Structural, Thermodynamic and Transport Properties of Liquid Noble and Transition Metals", Phys. Chem. Liquids, (U.K.) 38, 1 (2000) by G.M. Bhuiyan, A. Rahman, M.A. Khaleque, **R.I.M.A. Rashid** and S.M. Mujibur Rahman
39. "Calculation of Thermodynamic and Transport Properties of Less Simple Liquid Metals" Indian Jour. Phys. 76A, 293 (2002) by M.A. Khaleque, F. Zahid, G.M. Bhuiyan and **R.I.M.A. Rashid**
40. "Calculation of Partial Factors of a Less-Simple Binary Alloy", Eur. Phys. J.(Europe) B26, 319-322 (2002) by M.A. Khaleque, G.M. Bhuiyan, S. Sharmin, **R.I.M.A. Rashid** and S.M. Mujibur Rahman
41. "Electronic Transport Properties of Liquid Less-Simple Metals", Phys. Stat. Sol. (Germany) (b)232, No.2, 243-253 (2002) by S. Sharmin, G.M. Bhuiyan, M.A. Khaleque, **R.I.M.A. Rashid** and S.M.M. Rahman

42. "Entropy of Formation for $Ag_x In_{1-x}$ Liquid Binary Alloys" Presented at the Liquid and Amorphous Metals (LAM 13) Conference held on July 8-14, 2007 at Ekaterinburg, Russia: by Md. Saiful Alam, G.M. Bhuiyan, A.Z. Ziauddin Ahmed, **R.I.M.A. Rashid** J.Phys. Condens. Matter (UK) 98, 1-5 (2008)
43. "Theoretical Studies of Atomic Transport Properties of $Ag_x Cu_{1-x}$ and $Ag_x Sb_{1-x}$ Liquid Binary Systems" Presented at the Bose Conference on Contemporary Physics-08 held in 19-21 March 2008, at the Physics Department, University of Dhaka, Dhaka, Bangladesh: by Laila Nazneen, E.H. Bhuiyan, M. Saiful Alam, A.Z. Ziauddin Ahmed, G.M. Bhuiyan, **R.I.M.A. Rashid**
44. "A Theory for Electrical Resistivity of Amorphous Metals: An Approach Beyond Ziman Theory" Presented at the Bose Conference on Contemporary Physics-08 held in 19-21 March 2008, at the Physics Department, University of Dhaka, Dhaka, Bangladesh: by G.M. Bhuiyan, A.Z. Ziauddin Ahmed, Md. Ziaul Hoque, Mohammad Abdur Rashid, Sirajus Salekin Chowdhury, Md. Saiful Alam and **R.I.M.A. Rashid**
45. "A Theoretical Model to study the Physical Properties of Liquid Hydrocarbons" Presented at the Bose Conference on Contemporary Physics-08 held in 19-21 March 2008, at the Physics Department, University of Dhaka, Dhaka, Bangladesh: by Chittrali Sikder, A.Z. Ziauddin Ahmed, Md. Ashraful Huq, **R.I.M.A. Rashid**
46. "Study of the electronic transport property of less simple metal Pb and Bi" Presented at the Bose Conference on Contemporary Physics-08 held in 19-21 March 2008, at the Physics Department, University of Dhaka, Dhaka, Bangladesh : by Istiaq Ahmed, M. Masud Rana, A.Z. Ziauddin Ahmed, M.S.S. Chowdhury, G.M. Bhuiyan and **R.I.M.A. Rashid**
47. G.M. Bhuiyan, Md. Saiful Alam, A.Z. Ziauddin Ahmad, Ishtiaque M. Sayed and **R.I.M.A. Rashid** : Entropy of formation for $Ag_x In_{1-x}$ and $Ag_x Sn_{1-x}$ Liquid binary alloys. J. Chem. Phys (U.S.A.), 131, 034502-7 (2009)
48. Laila Nazneen, E.H. Bhuiyan, G.M. Bhuiyan, A.Z. Ziauddin Ahmed, Md. Saiful Alam and **R.I.M.A. Rashid**, Theoretical Studies of Atomic Transport Properties of $Ag_x Sb_{1-x}$ and $Ag_x Cu_{1-x}$ liquid binary alloys, International Congress on Pervasive Computing and Management, December 12-14, 2008. (Delhi, India)
49. A.Z. Ziauddin Ahmed, G.M. Bhuiyan, M.S. Alam, M.M. Rana and R.I.M.A. Rashid, Electrical Resistivity of Amorphous Fe and Ni, International Journal of Modern Physics B, Vol. 24, No. 27 (2010), 5417-5429.

Books:

01. "Physics: Mechanics, Sound and Thermodynamics by R. Resnick and D. Halliday": Translated by A.K. Roy, **R.I.M.A. Rashid**, M. Ahmed, S. Tapan and R. Chowdhury: published by The Bangla Academy, Dhaka, Bangladesh (1987-1988)
02. "Physics: Electricity, Magnetism and Optics by R. Resnick and D. Halliday": Translated by A.K. Roy, **R.I.M.A. Rashid**, M. Ahmed, S. Tapan: published by Bangla Academy, Dhaka, Bangladesh (1987-1988)