

# CV of Professor Mohammad Abul Hossain, Ph. D.

## Dr. Mohammad Abul Hossain

### Professor

Department of Chemistry  
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## BRIEF PROFILE OF DR. MOHAMMAD ABUL HOSSAIN

1. Full name	<b>MOHAMMAD ABUL HOSSAIN</b>
2. Date of Birth	31 August, 1969 (Cumilla, Bangladesh)
3. Nationality	Bangladeshi
4. Degrees	<b>Ph.D. in Environmental Science and Technology from Kanazawa University, Japan (2006)</b> , MS in Material Eng. (Kanazawa University, Japan, 2003), M.Sc. in Physical-Inorganic Chemistry (1993, DU) and B.Sc. Hons. in Chemistry (1992, DU).
5. Present Position	<b>Professor</b> , Department of Chemistry, University of Dhaka, Dhaka-1000, Bangladesh.
6. Additional Position	UN Delegate Member (Since 2007-- 2017), Worked as an expert of nomination in Chemistry for <b>Nobel Committee, Sweden</b> (Since 2016). Editor, Associate Editor, Guest Editor of 6+ International Journals.
7. Field of Research	Physical Chemistry, Environmental Chemistry, Nano Chemistry, Interdisciplinary Science and Religion.
8. Research Achievement	Dhaka University authority nominated Prof. Hossain for <b>Arab Nobel</b> (King Faisal International) <b>Prize 2015</b> for Science in Chemistry, and authority also nominated Prof. Hossain for <b>Arab Nobel Prize 2020</b> for Service to Islam.
9. Contribution to the National	One of the <b>Outstanding research</b> leading to the <u>formation of "Bangladesh Food Safety Authority"</u> on Feb. 02, 2015.
10. Experiences	<b>30+ years experiences in Teaching and Research</b> at the University, Govt. and Private Research Organizations (Kanazawa University, University of Dhaka, Independent University, Bangladesh (IUB), BCSIR, etc.) (since January 1995).
11. Research Projects	Successfully completed <b>14+ research and development projects</b> . <b>24+ years Project Management experience</b> with Japanese Government's Ministry of Education, Culture, Sports, Science and Technology (MEXT), Kanazawa University- Japan, United Nation (UN), Bangladesh Ministry of Science & Technology, Bangladesh University Grant Commission, BCSIR, University of Dhaka, etc.
12. Publication	Totally published <b>146+ articles</b> in Journal/Seminar/Conference/Project Reports, etc. Specifically, author and co-author of <b>60+ research articles</b> published in peer reviewed international and national journals.
13. Research Supervision	Supervised <b>59+</b> graduate and undergraduate (B. Sc., BS, M.Sc., MS, M.Phil. & Ph.D.) student's thesis.
14. Awards/Fellowship	Japanese Monbukagakusho Scholarship, NST Fellowship, Bose Center Fellowship, Dhaka University Deans Research Award (Professor Category).
15. Research Index	Article Reads: <b>104,030</b> , <i>h</i> -index: 13, Citation: 647, Research Int. Score: 617

16. Conferences	Presented research findings in more than <b>45+ international and national conferences.</b>
17. Reviewer	Reviewer of <b>15+</b> International and National Research Journals.
18. Member of the Professional Bodies	Member and Life Member of 11+ national and international professional societies.
19. Administrative Experiences	<b>08+</b> years of Administrative Experiences at Shahidullah Hall, Dhaka University, Bangladesh.

## In Details

### A. PERSONAL PROFILE

Full Name	MOHAMMAD ABUL HOSSAIN
Date of Birth	31 August, 1969 (Cumilla, Bangladesh)
Nationality	Bangladeshi
Father's Name	Mohammad Abdul Wahab
Mother's Name	Fatema Begum
Permanent Address	Vill: Paharpur (Balbari), P.O.: Fakir Bazar, UZ: Burichang, Dist: Cumilla, Bangladesh
Present Address	Department of Chemistry, University of Dhaka, Dhaka-1000, Bangladesh

### B. ACADEMIC QUALIFICATION

Ph. D. (2006) in Environmental Science and Technology	Environmental Science and Technology, Graduate School of Natural Science and Technology, Kanazawa University, Kanazawa, Japan ( <b>GPA: 3.97/4.00</b> ). <i>Thesis: Study on Process Development for Removal of Cr(VI) from Wastewater by Sorption on Used Black Tea Leaves – Feb., 2006.</i>
M. Eng. (2003) in Material Engineering	Material Engineering, Faculty of Engineering, Kanazawa University, Kanazawa, Japan ( <b>GPA: 3.96/4.00</b> ). <i>Thesis: Treatment of Wastewater Containing Toxic Heavy Metal [Cr(VI)] with Used Tea Leaves - March, 2003.</i>
M. Sc. (1993) in Physical-Inorganic Chemistry	Physical-Inorganic Chemistry, University of Dhaka, Dhaka-1000, Bangladesh ( <b>First Class First</b> ). <i>Thesis: Removal of Cr(VI) from Environment by Adsorption on Used Tea Leaves – February, 1997.</i>
B. Sc. Hons. (1992) in Chemistry	Chemistry, University of Dhaka, Dhaka-1000, Bangladesh ( <b>First Class 10<sup>th</sup></b> ).
Intensive Japanese Language Course	International Student Center Kanazawa University, Japan, April – Sept., 2000 Obtained: 77% Marks.

### C. LANGUAGE SKILLS

English (Reading, Writing, Speaking, Listening)  
 Bengali (Native) (Reading, Writing, Speaking, Listening)  
 Japanese (Speaking, Listening, Reading, Writing)  
 Arabic (Reading, Less Writing, Listening)

### D. FIELD OF RESEARCH

- ★ Physical Chemistry (Surface Chemistry: Adsorption, Solid-Liquid Interface, etc.)
- ★ Environmental Chemistry
- ★ Nano Chemistry
- ★ Theoretical Chemistry, Interdisciplinary Science and Religion

### E. COUNTRY VISITED / SCIENTIFIC PAPER PRESENTED

Visited Japan, United Kingdom, Thailand, Malaysia, Singapore, Kingdom of Saudi Arabia, Dubai and Qatar in several times for study/research/professional purposes

## F. PROFESSIONAL EXPERIENCES (Teaching and Research): >30 years

<b>Professor</b>	Department of Chemistry, University of Dhaka, Bangladesh	23 June, 2013 – till date
<b>Associate Professor</b>	Department of Chemistry, University of Dhaka, Bangladesh (3-years 6-months)	27 Dec. 2009–22 June 2013
<b>House Tutor</b>	Shahidullah Hall, Dhaka University	18 Oct. 2009 – 17 Oct. 2015
<b>Assistant House Tutor</b>	Shahidullah Hall, Dhaka University	18 Oct. 2007 – 17 Oct. 2009
<b>Assistant Professor</b>	Department of Chemistry, University of Dhaka, Bangladesh (3-years 3-months)	27 Sep. 2006 – 26 Dec. 2009
<b>Lecturer</b>	Department of Chemistry, University of Dhaka, Bangladesh (1-year 3-months)	24 July 2005 – 26 Sep. 2006
<b>Post Graduate Research Fellow</b>	Graduate School of Natural Science and Technology, Kanazawa University, Japan. (Japan Government (Monbusho) Scholarship)	14 Feb. 2000 – 31 March 2006
<b>Lecturer</b>	Department of Chemistry, School of Environmental Science and Management, Independent University, Bangladesh (IUB), Baridhara, Dhaka –1212, Bangladesh	09 Aug. 1999 – 13 Feb. 2000
<b>Scientific Officer</b>	Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh.	01 Aug. 1999 – 07 Aug. 1999
<b>Post Graduate Research Fellow</b>	The Bose Center for Advanced Study and Research in Natural Sciences; Department of Chemistry, University of Dhaka, Bangladesh	01 Aug. 1997 – 31 July 1999
<b>Post Graduate Research Fellow</b>	Department of Chemistry, University of Dhaka, Bangladesh	01 an 1995 – 28 Feb. 1997

## G. ADDITIONAL POSITIONS OF SCIENTIFIC AND PROFESSIONAL SOCIETIES

1. Delegate Member of **United Nations** World Human Rights Service Council, New York, USA (2007-17)
2. Nominator of the **Nobel Committee for Chemistry**, The Royal Swedish Academy of Sciences, Box 50005, SE-104 05 Stockholm, Sweden (Since 2016 -- )
3. Editorial Member - **Science Journal of Chemistry (SJC)** (Science Publishing Group, USA)
4. Associate Editor - **American Journal of Food Technology** (Science Alert, New York, USA).
5. Associate Editor – **Journal of Applied Science** (Science Alert, New York, USA).
6. Associate Editor – **Asian Journal of Scientific Research** (Science Alert, New York, USA).
7. Technical Editor – **Research Journal of Environmental Toxicology** (Science Alert, New York, USA).
8. Associate Editor – **Research Journal of Nanoscience and Nanotechnology** (Science Alert, USA).

## H. RESEARCH INTEREST

Surface Chemistry	Adsorptive Characterization of Biomass Materials and Nano Particles for the Development of Novel Adsorbents
Nano-Chemistry	Preparation and Characterization of Low Cost Nano particles for Utilization in the Drug Delivery System and Water Treatment Process
Environmental Chemistry	Development of Novel Methods for Wastewater Purification and Solid Waste Management, etc.
Science and Religion	Development of Co-relation Between Interdisciplinary Science and Religion

## I. SELECTED AWARDS, FELLOWSHIPS, SCHOLARSHIPS

- Arab Nobel Prize in Service to Islam for 2020 Nominated for the Award of the Arab Nobel Prize (King Faisal International Prize, Riyadh, Saudi Arabia) in Service to Islam for 2020 by Dhaka University proposed by the Academic Committee (AC) of Islamic Studies Department of Dhaka University, Bangladesh, March 25, 2019.
- Arab Nobel Prize in Chemistry for 2015 Nominated for the Award of the Arab Nobel Prize (King Faisal International Prize, Riyadh, Saudi Arabia) in Chemistry for 2015 by Dhaka University proposed by the C & D of Chemistry Department of Dhaka University, Bangladesh, April 28, 2014.
- Dean's Award Faculty of Science, University of Dhaka, Bangladesh for Outstanding Research Publication in Professor Category: Dean's Award 2014 (Gold Medal, Awarded on 9 Dec, 2015).
- Best Paper Award International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development (IJCSEIERD), India, UK & USA, for Outstanding Research Article (Best Paper Award 2014).
- JASSO Follow-up Fellowship Fiscal 2014 JASSO Follow-up Research Fellowship, Japanese Government, Kanazawa University, Kanazawa, Japan for Visiting Research Program (Dec 2015 - March 2016).
- UN Travels Award To attend the Follow-up *International Conference on Financing for Development to Review the Implementation of the Monterrey Consensus* - 29 to 2 Dec. 2008 in Doha, Qatar, organized by United Nations (UN).
- Monbukagkusho Scholarship Japan Government, Kanazawa University, Kanazawa, Japan for Ph. D. Program (April 2003 – March 2006).
- Monbukagkusho Scholarship Japan Government, Kanazawa University, Kanazawa, Japan for MS Course (Feb. 2000 – March 2003).
- Gold Medal Department of Chemistry, University of Dhaka, Bangladesh for the First Class First Position in M. Sc. in Chemistry, 1993.
- National Science and Technology (NST) Fellowship Ministry of Science and Technology, Government of the People's Republic of Bangladesh for M.Sc. Research (05 Dec. 1996 – 04 April 1997).
- Academic Bright Scholarship Department of Chemistry, University of Dhaka, Bangladesh for the First Class in B. Sc. Hons. in Chemistry, 1992.

## J. INSTRUMENTAL SKILLS

- ✧ X-ray Photoelectron Spectroscopy (XPS)
- ✧ Scanning Electron Microscope (SEM)
- ✧ Energy Dispersive X-ray (EDX)
- ✧ X-ray Diffraction (XRD)
- ✧ Optical Microscope (OM)
- ✧ Raman (Laser) Spectroscopy
- ✧ Fourier Transform Infrared Spectroscopy (FTIR-ATR)
- ✧ Infra-red Spectrophotometer (IR)
- ✧ Graphite Furnace-Atomic Absorption Spectrometry (GF-AAS)
- ✧ Atomic Absorption Spectrometry (AAS)
- ✧ Selective Ion Meter
- ✧ High Performance Liquid Chromatography (HPLC)
- ✧ UV-Visible Spectrophotometer
- ✧ Computer Operation: MS Word, MS Excel, MS PowerPoint, Graphing Software: Sigma Plot, Kyplot, Origin, ChemDraw, etc.

## K. RESEARCH CONTRIBUTION TO THE NATION

### Implementation of One of the Research Achievement to Control the Environmental Pollution by Tannery Waste in Bangladesh with the help of Government

(1) Leather cut wastes of tannery; (2) Boiling of leather cut wastes and shaving dusts of tannery for preparation of poultry feed; (3) Leather shaving dusts as poultry feed; (4) Poultry feed prepared from leather cut wastes and shaving dusts of tannery; (5) Poultry; (6) Carcinogen chromium leads to skin ulcers, kidney and liver damage

Schematic diagram for the transport of toxic chromium from tannery to human body through poultry feed in Bangladesh and its carcinogenic effects

**Founded: Bangladesh Food Safety Authority on 02 Feb. 2015**

This achievement was presented in the parliament session on 03 Sept. 2014 of 10<sup>th</sup> Parliament of Bangladesh

Evaluation of the toxic effect of industrial solid-waste particularly tannery waste is one of the popular works of Dr. Hossain, which was the basis of the well-known action of Bangladesh RAB (Rapid Action Battalion) mobile court to stop the production of poultry feed from the leather of tannery waste in Hazaribagh area, Dhaka. In the research he presented, "how the excess amount of chromium transfer from tannery waste to human body through the poultry feed prepared from the leather of tannery waste, by the deposition of chromium in poultry meat". His research achievement was also presented in the parliament session on 03/09/2014 of 10<sup>th</sup> Parliament of Bangladesh by Mrs. Rowshan Ara Mannan, Hon'ble Member of Parliament (MN-347) to solve as an emergency issue (Act-71) and finally formed the "Bangladesh Food Safety Authority" on Feb. 02, 2015. Not only that, this research work was highlighted in the **UNDARK**, a Science, Technology & Society Magazine, published from Massachusetts Institute of Technology in Cambridge, USA, on Feb. 21, 2017 by Debbie M. Price, a writer and freelance journalist of *The Washington Post*, *The Baltimore Sun*, the *Philadelphia Daily News* and the *Fort Worth Star*. <https://undark.org/2017/02/21/leather-tanning-bangladesh-india/>

#### L. RESEARCH EXPERIENCES (PROJECTS AND GRANTS)

1.	<b>Research Fellow</b> , <i>Removal of Cr(VI) from Environment by Adsorption on Used Tea Leaves</i> , Funded by <b>Ministry of Science and Technology</b> , Department of Chemistry, University of Dhaka, Amount per month: 2200 BDT, (Completed : 28 Feb. 1997).	1995-1996
2.	<b>Research Fellow</b> , <i>Removal of Metal Pollutants from Environment by Low-cost Adsorbents</i> , Funded by - <b>The Bose Center for Advanced Study and Research in Natural Sciences</b> , Department of Physics, University of Dhaka, Amount per month: 2850 BDT, (Completed : July 1999).	1997-1999
3.	<b>Research Fellow</b> , <i>Treatment of Wastewater Containing Toxic Heavy Metal [Cr(VI)] with Used Tea Leaves</i> , Funded by – <b>Japan Government</b> , Division of Material Engineering, Department of Chemistry & Chemical Engineering, Kanazawa University, Kanazawa, Japan, Amount per month: 1,85,000 Yen, (Completed : March 2003).	2000-2002
4.	<b>Research Fellow</b> , <i>Study on Process Development for Removal of Cr(VI) from Wastewater by Sorption on Used Black Tea Leaves</i> , Funded by – <b>Japan Government</b> , Division of Global Environmental Science and Engineering, Kanazawa University, Kanazawa, Japan, Amount per month: 1,85,000 Yen, (Completed: March 2006).	2003-2005
5.	<b>Project Director</b> , <i>Removal of Dyes from Textile Effluents by Adsorption on Used Tea Leaves</i> , Funded by - <b>University Grand Commission of Bangladesh (UGC)</b> , Agargon, Dhaka-1207, Bangladesh, Total Amount: 70,475 BDT, (Completed: 12 April, 2010).	2005-2006
6..	<b>Project Director</b> , Study on the transport of chromium from tannery industry to poultry meat as well as human body and its minimization process development, Funded by - <b>Bangladesh Council of Scientific and Industrial Research (BCSIR)</b> , Dr. Qudrate-Khuda Road, Dhaka-1205, Bangladesh, Total Amount: 52,000 BDT, (Completed: 29-01-2009).	2007-2008
7.	<b>Project Co-Director</b> , <i>Detoxification of waste water from heavy metals and organic pollutants</i> - <b>Ministry of Science and Information &amp; Communication Technology</b> , Government of the People's Republic of Bangladesh, Total Amount: 13,00,000 BDT, (Completed: 30 June, 2010).	2008-2009
8.	<b>Project Director</b> , <i>Study on the Removal of Textiles Dyes from Aqueous System by Column Adsorption on Used Tea Leaves</i> - <b>University Grand Commission of Bangladesh (UGC)</b> , Agargon, Dhaka-1207, Bangladesh, Total Amount: 79,000 BDT, (Completed: 30 June, 2011).	2009-2010
9.	<b>Project Director</b> , <i>Removal of Reactive Orange-16 from Textile Effluent by Adsorption on Used Black Tea Leaves</i> , Funded by - <b>Dhaka University Teacher's Grant under University Grand Commission of Bangladesh (DU-UGC)</b> , Bangladesh, Total Amount: 1,00,000 BDT, (Completed: 20 January, 2013).	2010-2011
10.	<b>Project Director</b> , <i>Removal of Crystal Violet from Textile Effluent by Adsorption on Used Black Tea Leaves</i> , Funded by – <b>Dhaka University Teacher's Grant under University Grand Commission of Bangladesh (DU-UGC)</b> , Bangladesh, Total Amount: 75,000 BDT, (Completed: 23 February, 2014).	2012-2013
11.	<b>Project Director</b> , <i>Study on the Removal of Direct Red 81 from Textile Effluent by Adsorption on Used Black Tea Leaves</i> , Funded by - <b>Dhaka University Teacher's Grant under University Grand Commission of Bangladesh</b> , Bangladesh, Total Amount: 76,000 BDT, (Completed: 28 January, 2019).	2017-2018
12.	<b>Project Director</b> , Study on the Removal of Fast Green from Textile Effluent by Adsorption on Used Black Tea Leaves, Funded by - <b>Dhaka University Teacher's Grant under University Grand Commission of Bangladesh</b> , Total Amount: 1,00,000 BDT, (Completed: 20 March, 2020).	2018-2019
13.	<b>Chief Investigator</b> , Preparation of Chitosan Nanoparticles from Shrimp Shell and Its Characterization for Potential Application to Enhance the Drug Delivery Process, Funded by - <b>DU Centennial Research Grant (CRG)</b> , <b>University of Dhaka</b> , Bangladesh, Total Amount: 5,30,000 BDT, (Completed: 30 June, 2022).	2021-2022
14.	<b>Project Director</b> , Development of a Treatment Process for the Removal of Basic Violet 4 from Textile Wastewater Using Tea Waste as a Low-cost Biosorbent, Funded by - <b>Dhaka University Project UGC</b> , Bangladesh, Total Amount: 3,28,000 BDT, (Current).	2022-2023

## M. LIST OF PUBLICATION (Journals/ Conferences/ Seminars)

### Journal Articles (Peer Reviewed)

1.	Tajmeri S. A. Islam and <b>Md. Abul Hossain</b> ; Estimation of Equilibrium Time During the Adsorption of Cr(VI) by Used Tea Leaves, <i>J. Bangladesh Acad. Sci. (JBAS)</i> , Vol. <b>20</b> , No. 2, pp. 247-252, 1996 (BANGLADESH).
2.	<b>Mohammad Abul Hossain</b> ; "Removal of Cr(VI) from Environment by Adsorption on Used Tea Leaves" - <i>M. Sc. Thesis</i> , February-1997, Department of Chemistry, University of Dhaka, Dhaka-1000 (BANGLADESH).
3.	<b>Md. Abul Hossain</b> and Tajmeri S. A. Islam; Effect of pH on the Adsorption of Cr(VI) by Used Tea Leaves. <i>J. Bangladesh Acad. Sci. (JBAS)</i> , Vol. <b>22</b> , No. 1, pp. 91-99, 1998 (BANGLADESH).
4.	A. K. M. Z. Hossain, <b>M. A. Hossain</b> , F. Khanom, H. A. Begum, M. Q. Ehsan and T. S. A. Islam; Adsorption Behavior of Dichlorophenol on Alumina, <i>Dhaka Univ. J. Sci.</i> Vol. <b>47</b> , No. 2, pp. 167 – 175, 1999 (BANGLADESH).
5.	<b>M. Abul Hossain</b> , M. Qamrul Ehsan and Tajmeri S. A. Islam; Sorption of Cr(VI) by Used Tea Leaves, <i>Dhaka Univ. J. Sci.</i> Vol. <b>48</b> , No. 1, pp. 7 – 12, 2000 (BANGLADESH).
6.	<b>Mohammad Abul Hossain</b> ; "Treatment of Wastewater Containing Toxic Heavy Metal [Cr(VI)] with Used Tea Leaves" – <i>M.S. Thesis</i> , March-2003, Department of Chemical Engineering and Chemical Technology, Kanazawa University, Kanazawa (JAPAN).
7.	<b>M. A. Hossain</b> , M. Kumita, and S. Mori; Sorption Dynamic of Cr(VI) on Used Black Tea Leaves, <i>American Institute of Physics (AIP) Conference Proceedings</i> , Vol. <b>708</b> , pp. 394-397, April 2004 (USA).
8.	<b>Hossain, M. A.</b> , Kumita, M and Mori, S; Adsorption Mechanism of Hexavalent Chromium on Used Black Tea Leaves, <i>The 10th Asian Pacific Congress Proceedings (APCCHE 04)</i> , 1M-05: Environment (9 pages.), October 17–21, 2004, Kitakyushu (JAPAN).
9.	<b>Mohammad Abul Hossain</b> , Mikio Kumita, Yoshimasa Michigami, Tajmeri S. A. Islam and Shigeru Mori; Rapid Speciation Analysis of Cr(VI) and Cr(III) by Reverse-Phase High Performance Liquid Chromatography Using UV-Detection, <i>J. Chromatogr. Sci.</i> , Vol. <b>43</b> , No. 2, pp. 98-103, Feb. 2005 (Preston Publications, USA). (IF : 0.884 ; 2012).
10.	<b>M. Abul Hossain</b> , M. Kumita, Y. Michigami and S. Mori; Kinetics of Cr(VI) Adsorption on Used Black Tea Leaves, <i>J. Chem. Eng. Jpn.</i> , Vol. <b>38</b> , No. 6, pp. 402-405, June 2005 (The Society of Chemical Engineers, JAPAN). (IF : 0.622 ; 2012).
11.	<b>M. Abul Hossain</b> , M. Kumita and S. Mori; Effective Removal of Cr(VI) from Aqueous Solution by Sorption on Used Black Tea Leaves; Proceedings of the 7th World Congress of Chemical Engineering, 85643;P40-012: Adsorbent (10 pages), July 10–14, 2005, Glasgow, Scotland (Institution of Chemical Engineers, UK).
12.	<b>Mohammad Abul Hossain</b> , Mikio Kumita, Yoshimasa Michigami and Shigeru Mori; Optimization of Parameters for Cr(VI) Adsorption on Used Black Tea Leaves, <i>Adsorption</i> , Vol. <b>11</b> , pp. 555-564, Nov. 2005 (Journal of the International Adsorption Society, USA). (IF : 2.000 ; 2012).
13.	<b>Mohammad Abul Hossain</b> ; "Study on Process Development for Removal of Cr(VI) from Wastewater by Sorption on Used Black Tea Leaves" – <i>Ph. D Thesis</i> , March 2006, Division of Environmental Science and Technology, Kanazawa University, Kanazawa (JAPAN).
14.	Tajmeri SA Islam, Hosne Ara Begum, <b>Mohammad Abul Hossain</b> , Mohammad Tanvir Rahman; Removal of Pb(II) from Aqueous Solution by Sorption on Used Tea Leaves, <i>J. Bangladesh Acad. Sci. (JBAS)</i> , Vol. <b>33</b> , No. 2, pp. 167-178, 2009 (BANGLADESH).
15.	<b>Mohammad Abul Hossain</b> , Mikio Kumita and Shigeru Mori; SEM Characterization of the Mass Transfer of Cr(VI) during the Adsorption on Used Black Tea Leaves, <i>African J Pure and Appl. Chem.(AJPAC)</i> , Vol. <b>4</b> , No. 7, pp. 135-141, July 2010 (Academic Journal, NIGERIA). (IF : 1.694 ; 2012).
16.	<b>Mohammad Abul Hossain</b> , Zubair Hasan and Tajmeri S. A. Islam; An Equilibrium Study on Adsorption of Reactive Black 5 on Used Black Tea Leaves, <i>Bangladesh J. Agri. and Environ. (BJAE)</i> , Vol. <b>7</b> , No. 1, pp. 30 - 35, June 2011 (Bangladesh Fertilizer Association, BFA, BANGLADESH).
17.	<b>Mohammad Abul Hossain</b> , Zubair Hasan and Tajmeri S. A. Islam; Kinetic Evaluation on the Adsorption of Reactive Black 5 on Used Black Tea Leaves, <i>Dhaka Univ. J. Sci.</i> , Vol. <b>59</b> , No. 2, pp. 193 – 197, July 2011 (BANGLADESH).

18.	<b>Mohammad Abul Hossain</b> and Md Shah Alam; Adsorption Kinetics of Rhodamine-B on Used Black Tea Leaves, <i>Iran. J. Environ. Health. Sci. Eng. (IJEHS)</i> , Vol. <b>9</b> , pp. 2-15, August 2, 2012 ( <u>IRAN</u> ). (IF : 2.179 ; 2019). Springer Nature Pub. Gr., <u>Switzerland</u>
19.	<b>M. Abul Hossain</b> and M. Atiqur Rahman; Equilibrium Adsorption of Rhodamine B on Used Black Tea Leaves from Acidic Aqueous Solution, <i>Orbital Elec. J. Chem.</i> , Vol. <b>4</b> , No. 3, pp. 187-201, Sept. 14, 2012 ( <u>BRAZIL</u> ). (IF : 0.2692 ; 2012).
20.	<b>Mohammad Abul Hossain</b> and Shigeru Mori; Determination of Particle Size Distribution of Used Black Tea Leaves (UBTL) by Scanning Electron Microscope, <i>Dhaka Univ. J. Sci.</i> , Vol. <b>61</b> , No. 1, pp. 111-115, January 2013 ( <u>BANGLADESH</u> ).
21.	Y. Zaker, <b>M. A. Hossain</b> and T. S. A. Islam; Adsorption Kinetics of Methylene Blue onto Clay Fractionated from Bijoypur Soil, <i>Res. J. Chem. Sci.</i> , Vol. <b>3</b> , No. 2, pp. 65-72, Feb. 18, 2013 ( <u>INDIA</u> ). (IF : 0.373 ; 2012)
22.	<b>Mohammad Abul Hossain</b> and Md. Atiqur Rahman; Removal of Basic Violet 10 from Neutral Aqueous Solution by Adsorption on Used Black Tea Leaves, <i>International Journal of Chemistry</i> , Vol. <b>2</b> , No. 2, pp. 83-94, Feb. 2013 ( <u>AUSTRIA</u> ).
23.	Y. Zaker, <b>M. A. Hossain</b> , M. S. Islam and T. S. A. Islam; Physico-chemical Characterization of Silt Fractionated from Bijoypur Soil, <i>Journal of the Asiatic Society of Bangladesh</i> , Vol. <b>39</b> , No. 1, pp. 53-60, June 2013 ( <u>BANGLADESH</u> ).
24.	Zaker Y., <b>Hossain M. A.</b> and Islam T. S. A.; Effect of Various Factors on the Adsorption of Methylene Blue on Silt Fractionated from Bijoypur Soil, Bangladesh, <i>Int. Res. J. Environment Sci.</i> , Vol. <b>2</b> , No. 6, pp. 1-7, June 2013 ( <u>INDIA</u> ). (IF : 3.116; 2012).
25.	T. S. A. Islam, H. A. Begum, <b>M. A. Hossain</b> , and M. Moniruzzaman; Adsorption Mechanism of 2, 4-Dichlorophenol on Ferric Oxide from Aqueous Solution, <i>J. Bangladesh Acad. Sci. (JBAS)</i> , Vol. <b>37</b> , No. 1, pp. 1-10, July, 2013 ( <u>BANGLADESH</u> ).
26.	<b>Mohammad Abul Hossain</b> and Shahidul Islam; Synthesis of carbon nanoparticles from kerosene and their characterization by SEM/EDX, XRD and FTIR, <i>American Journal of Nanoscience and Nanotechnology</i> , Vol. <b>1</b> , No. 2, pp. 52-56, July 2013 (Science Publishing Group, New York, <u>USA</u> ).
27.	Y. Zaker, <b>M. A. Hossain</b> , P. Paul, and T. S. A. Islam; Spectro-Chemical Characterization of Rangpur (Sabjibari) Soil Fractions of Bangladesh, <i>Res. J. Chem. Sci.</i> , Vol. <b>3</b> , No. 9, pp. 10-17, Sept. 18, 2013 ( <u>INDIA</u> ). (IF : 0.373 ; 2012).
28.	<b>Mohammad Abul Hossain</b> ; Everything of the Universe is Made of Light: Theory for Everything, <i>Journal of Science and today's world</i> , Vol. <b>2</b> , No. 9, pp. 1267-1272, Sept. 30, 2013 (SCI, Index Copernicus International, Stockholm, <u>SWEDEN</u> ).
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107.	Fatema Tuj Jahura and <b>Mohammad Abul Hossain</b> , Extraction of Chitosan from Shrimp Shell and Characterization of Irradiated Chitosan for Use in the Preservation of Green Chili - <i>MS Thesis</i> , January, 2011 Department of Chemistry University of Dhaka, Bangladesh.
108.	Md. Baiazid Ismail and <b>Mohammad Abul Hossain</b> , Equilibrium and Kinetic Study of the Adsorption of Reactive Orange 16 on Used Black Tea Leaves – <i>MS Thesis</i> , Nov., 2011, Department of Chemistry University of Dhaka, Bangladesh.
109.	Ali Rajib Mahmud and <b>Mohammad Abul Hossain</b> , Continuous Column Adsorption of Reactive Black 5 on Used Black Tea Leaves – <i>MS Thesis</i> , November, 2011, Department of Chemistry University of Dhaka, Bangladesh.
110.	Shahidul Islam and <b>Mohammad Abul Hossain</b> , Preparation of Carbon Nanoparticles from Different Fuels and Their Characterization – November, 2011, Department of Chemistry University of Dhaka, Bangladesh.
111.	Md. Shah Alam and <b>Mohammad Abul Hossain</b> , Batch and Continuous Column Adsorption of Rhodamine B on Used Black Tea Leaves – <i>MS Thesis</i> , August, 2012, Department of Chemistry University of Dhaka, Bangladesh.
112.	Abu Saleh Ibne Mizan and <b>Mohammad Abul Hossain</b> , Adsorption Kinetics of the Methylene Blue on Carbon Nano Particles Prepared from Diesel and Mobil – <i>MS Thesis</i> , March 25, 2014, Department of Chemistry University of Dhaka, Bangladesh.
113.	Md. Tanim-al-Hassan and <b>Mohammad Abul Hossain</b> , Removal of Crystal Violet from Aqueous System by Adsorption on Used Black Tea Leaves - <i>MS Thesis</i> , March 25, 2014, Department of Chemistry University of Dhaka, Bangladesh.
114.	Md. Lokman Hossain and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Malachite Green from Aqueous Solution by Used Black Tea Leaves - <i>MS Thesis</i> , March 25, 2014, Department of Chemistry University of Dhaka, Bangladesh.
115.	Muhammad Ruksanul Kabir and <b>Mohammad Abul Hossain</b> , Kinetic Study on the Adsorption of Alizarine GR on Used Black Tea Leaves from Aqueous Solution – <i>MS Thesis</i> , Feb. 28, 2015, Department of Chemistry University of Dhaka, Bangladesh.
116.	M. S. R. Shahin and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Congo Red from Aqueous Solution by Used Black Tea Leaves - <i>MS Thesis</i> , Feb. 28, 2015, Department of Chemistry University of Dhaka, Bangladesh.
117.	Rasel Ahmed and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Fast Green from Aqueous Solution with Used Black Tea Leaves - <i>MS Thesis</i> , April, 2016, Department of Chemistry University of Dhaka, Bangladesh.
118.	Liton Kumar Biswas and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Basic violet 14 from

	Water using Used Black Tea Leaves - <i>MS Thesis</i> , April , 2016, Department of Chemistry University of Dhaka, Bangladesh.
119.	Bishwjit Bonik and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Direct Red 81 from Aqueous Solution by Used Black Tea Leaves - <i>M. Sc. Thesis</i> , May, 2017, Department of Chemistry University of Dhaka, Bangladesh.
120.	Mohammad Zawad Hossain and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Acid Blue 12 from Aqueous Solution by Used Black Tea Leaves - <i>MS Thesis</i> , December, 2018, Department of Chemistry University of Dhaka, Bangladesh.
121.	Mahbubul Hasan and <b>Mohammad Abul Hossain</b> , Preparation and Characterization of Curcumin Nanoparticles from Natural Product – <i>MS Thesis</i> , December, 2018, Department of Chemistry University of Dhaka, Bangladesh.
122.	Ashish Vowmick and <b>Mohammad Abul Hossain</b> , Removal of Direct Yellow 27 from Aqueous Solution by Used black Tea Leaves - <i>MS Thesis</i> , January, 2019, Department of Chemistry University of Dhaka, Bangladesh.
123.	Raisa Tarar Nur and <b>Mohammad Abul Hossain</b> , Adsorptive Removal of Basic Violet 4 from Aqueous Solution by Used Black Tea Leaves – <i>MS Thesis</i> , June, 2023, Department of Chemistry University of Dhaka, Bangladesh.
124.	Abu Taleb and <b>Mohammad Abul Hossain</b> , Adsorption Kinetics of Acid Red 1 on Carbon Nanoparticles from the Mixture of Diesel and Mobil – <i>MS Thesis</i> , June, 2023, Department of Chemistry University of Dhaka, Bangladesh.
125.	Raisa Rahman Rafia and <b>Mohammad Abul Hossain</b> , Equilibrium Adsorption of Acid Red-1 on Used Black Tea Leaves from Acidic Aqueous Solution – <i>MS Thesis</i> , June, 2023, Department of Chemistry University of Dhaka, Bangladesh.
126.	Sumaya Zannat Nijhum and <b>Mohammad Abul Hossain</b> , Equilibrium and Thermodynamic Studies of Acid Blue 29 Adsorption on Used Black Tea Leaves from Aqueous Solution – <i>MS Thesis</i> , May, 2024, Department of Chemistry University of Dhaka, Bangladesh.
127.	Yeasmin Akhter, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Studies on the Removal of 2, 3-Dichloro-phenol by Adsorption on Titanium (IV) Oxide-Aqueous Interface - <i>BS Project</i> , June, 2006, Department of Chemistry University of Dhaka, Bangladesh.
128.	Shewly Akhter, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Studies on the Removal of 2, 4-Dichloro-phenol by Adsorption on Titanium (IV) Oxide-Aqueous Interface - <i>BS Project</i> , June, 2006, Department of Chemistry University of Dhaka, Bangladesh.
129.	Nafees Ahmed, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Estimation of Equilibrium Time for the Adsorption of Arsenic on Used Tea Leaves and Kaolinite – <i>BS Project</i> , Nov., 2006, Department of Chemistry University of Dhaka, Bangladesh.
130.	Md. Safiqul Islam, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Photocatalytic Degradation of Brilliant Orange in the Presence of Hydrogen Peroxide – March, 2007, Department of Chemistry University of Dhaka, Bangladesh.
131.	Arif Ahmed, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Studies on the Adsorption of Brilliant Red on Used Tea Leaves – <i>BS Project</i> , March, 2007, Department of Chemistry University of Dhaka, Bangladesh.
132.	Rezina Yesmin, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Removal of 2, 5-Dichlorophenol from Aqueous Solution by Adsorption and Photo- Degradation using Titanium (IV) Oxide – <i>BS Project</i> , March, 2007, Department of Chemistry University of Dhaka, Bangladesh.
133.	Md. Khairul Bashar, <b>Mohammad Abul Hossain</b> and Tajmeri S. A. Islam, Studies on the Adsorption of Methylene Blue on Used Tea Leaves – <i>BS Project</i> , Feb., 2008, Department of Chemistry University of Dhaka, Bangladesh.
134.	Zubair Hasan and <b>Mohammad Abul Hossain</b> , Kinetic Study on Adsorption of Reactive Black 5 on Used Black Tea Leaves (UBTL) – <i>BS Project</i> , February, 2008, Department of Chemistry University of Dhaka, Bangladesh.
135.	Ambia Sultana and <b>Mohammad Abul Hossain</b> , Equilibrium Adsorption Study of Brilliant Red on Used Black Tea Leaves – <i>BS Project</i> , February, 2008, Department of Chemistry University of Dhaka, Bangladesh.
136.	Md. Mahbbat Ali and <b>Mohammad Abul Hossain</b> , Comparative Study of the Adsorption of Methylene Blue on Low Cost Adsorbents by Column Process – <i>BS Project</i> , Aug., 2008, Department of Chemistry University of Dhaka, Bangladesh.

137.	Md. Shah Alam and <b>Mohammad Abul Hossain</b> , Kinetic Study on the Adsorption of Rhodamine B on Used Black Tea Leaves - <i>BS Project</i> , December, 2010, Department of Chemistry University of Dhaka, Bangladesh.
138.	Abu Saleh Ibne Mizan and <b>Mohammad Abul Hossain</b> , Preparation and Characterization of Carbon Nanoparticles from the Mixture of Diesel and Mobil - <i>BS Project</i> , July, 2012, Department of Chemistry University of Dhaka, Bangladesh.
139.	Md. Lokman Hossain and <b>Mohammad Abul Hossain</b> , Kinetic Study on the Adsorption of Malachite Green on Used Black Tea Leaf - <i>BS Project</i> , July, 2012, Department of Chemistry University of Dhaka, Bangladesh.
140.	Shahriar Hossain and <b>Mohammad Abul Hossain</b> , Kinetic and Thermodynamic Studies of the Brilliant Red Adsorption on Carbon Nanoparticles - <i>BS Project</i> , August, 2014, Department of Chemistry University of Dhaka, Bangladesh.
141.	Rasel Ahmed and <b>Mohammad Abul Hossain</b> , Kinetics and Thermodynamics of Fast Green Adsorption on Used Black Tea Leaves – <i>BS Project</i> , August, 2014, Department of Chemistry University of Dhaka, Bangladesh.
142.	Md. Mohibullah and <b>Mohammad Abul Hossain</b> , Adsorption Kinetics of Basic Blue 41 on Used Black Tea Leaves – <i>BS Project</i> , Aug., 2015, Department of Chemistry University of Dhaka, Bangladesh.
143.	Anjam Sadik and <b>Mohammad Abul Hossain</b> , Kinetic study on the adsorption of Acid Blue-29 on used black tea leaves - <i>BS Project</i> , August, 2015, Department of Chemistry University of Dhaka, Bangladesh.
144.	Mahbubul Hasan and <b>Mohammad Abul Hossain</b> , Kinetics and Thermodynamics of Curcumin Extraction from Turmeric - <i>BS Project</i> , May, 2017, Department of Chemistry University of Dhaka, Bangladesh.
145.	Raisa Rahman Rafia and <b>Mohammad Abul Hossain</b> , Study on the Adsorption Kinetics of Acid Red 1 on Used Black Tea Leaves – <i>BS Project</i> , January, 2021, Department of Chemistry University of Dhaka, Bangladesh.
146.	Santa Islam and <b>Mohammad Abul Hossain</b> , Study of the Adsorption Kinetics of Ethyl Violet on Used Black Tea Leaves – <i>BS Project</i> , January, 2021, Department of Chemistry University of Dhaka, Bangladesh.

#### N. LIST OF RESEARCH STUDENTS (Supervised/Co-supervised)

No.	Level	Name	Research Title and Institution	Role	Year
1.	Ph. D.	Md. Abdul Hannan Registration No.- 86	Investigation of Adsorptive Removal of Chromium (VI) from Aquatic System Using Dust Black Tea Leaves - January, 2019, Department of Chemistry, University of Dhaka.	Supervisor	2014-2018
2.	Ph. D.	Fatema Tuj Jahura Registration No.- 112	Preparation, Characterization and Applications of Nanoparticles from Chitosan - September, 2022, Department of Chemistry, University of Dhaka	Supervisor	2016-2020
3.	Ph. D.	Md. Ariful Islam Registration No.-	Adsorptive Removal of Pb, As and Cr from Aqueous System with Turmeric Wastematerials as a Low Cost Biosorbent - Current Department of Chemistry, University of Dhaka	Supervisor	2016-2021
4.	Masters	A. K. M. Zakir Hossain Exam. Roll No. 6906	Adsorption Behaviour of 2,4-Dichlorophenol onto an Alumina-Solution Interface - Nov., 1997, Department of Chemistry, University of Dhaka.	Co-supervisor	1993-1994
5.	Masters	Muhammad Muzahid-bin-Jalal Exam. Roll No. 4103	Adsorption Behaviour of 2,4-Dichlorophenol onto a Ferric Oxide Solution Interface - July, 2006, Department of Chemistry, University of Dhaka.	Co-supervisor	2001-2002
6.	Masters	Saifuddin Mohammad Tareq Exam. Roll No. 4013	Adsorption Behaviour of 2,5-Dichlorophenol onto a Ferric Oxide Solution Interface - July, 2006, Department of Chemistry, University of Dhaka.	Co-supervisor	2001-2002
7.	Masters	Yeasmin Akhter Exam. Roll No. 2709	Preparation of Mixed Oxide (Al-Zn), its Characterization and its Use as an Adsorbent of Organic Pollutants - May, 2007, Department of Chemistry, University of Dhaka.	Co-supervisor	2002-2003
8.	Masters	Shewly Akhter Exam. Roll No. 2710	Preparation of Mixed Oxide (Fe-Zn), its Characterization and its Use as an Adsorbent of	Co-supervisor	2002-2003

			Organic Pollutants - May, 2007, Department of Chemistry, University of Dhaka.		
9.	Masters	Muhammad Tanvir Rahman Exam. Roll No. 2701	Removal of Pb(II) Ion from Aqueous Medium Using Used Tea Leaves - March, 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004
10.	Masters	Nafeez Ahmed Exam. Roll No. 2702	Removal of As(III) from Water by Used black Tea Leaves (UBTLs) and Iron Oxide Coated Used black Tea Leaves (IOC-UBTLs) - March, 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004
11.	Masters	Md. Moniruzzaman Exam. Roll No. 2709	Studies on the Removal of Dichloro-phenol from Ferric Oxide Aqueous Interface - March, 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004
12.	Masters	Md. Safiqul Islam Exam. Roll No. 2902	Photocatalytic Degradation of Brilliant Orange in Presence of TiO <sub>2</sub> Suspension – September, 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2004-2005
13.	Masters	Ambia Sultana Exam. Roll No. 2012	Equilibrium and Kinetic Evaluation of the Adsorption of Commercial Brilliant Red on Used Black Tea Leaves - July, 2009, Department of Chemistry, University of Dhaka.	Supervisor	2005-2006
14.	Masters	Mr. Zubair Hasan Exam. Roll No. 2017	Dynamic Modeling of the Adsorption of Commercial Reactive Black 5 on Used Black Tea Leaves - July, 2009, Department of Chemistry, University of Dhaka	Supervisor	2005-2006
15.	Masters	Md. Mahbbat Ali Exam. Roll No.1208	Decolorization of Wastewater by Continuous Column Adsorption Using Low Cost Adsorbent-January, 2010.	Co-supervisor	2006-2007
16.	Masters	Md. Sekander Ali Munsh Exam. Roll No. 1214	Uses of Textile Dyes in Bangladesh and their Effect in Environment (Project) - January, 2010, Department of Chemistry, University of Dhaka.	Supervisor	2006-2007
17.	Masters	Md. Atiqur Rahman Exam. Roll No. 1217	Adsorption of Rhodamine B on Used Black Tea Leaves - January, 2010, Department of Chemistry, University of Dhaka.	Supervisor	2006-2007
18.	Masters	Md. Raqibul Hasan Exam. Roll No. 3707 Dept. of Chemistry, DU.	Continuous Column Adsorption of Brilliant Red on Used Black Tea Leaves - January, 2011, Department of Chemistry, University of Dhaka.	Supervisor	2007-2008
19.	Masters	Fatema Tuj Jahura Exam. Roll No. 3725	Extraction of Chitosan from Shrimp Shell and Characterization of Irradiated Chitosan for Use in the Preservation of Green Chili - January, 2011, Department of Chemistry, University of Dhaka.	Supervisor	2007-2008
20.	Masters	Md. Baiazid Ismail Exam. Roll No : 3808	Equilibrium and Kinetic Study of the Adsorption of Reactive Orange 16 on Used Black Tea Leaves – Nov., 2011, Department of Chemistry, University of Dhaka.	Supervisor	2008-2009
21.	Masters	Ali Rajib Mahmud Exam. Roll No : 3812	Continuous Column Adsorption of Reactive Black 5 on Used Black Tea Leaves – November, 2011.	Supervisor	2008-2009
22.	Masters	Shahidul Islam Exam. Roll No : 3826	Preparation of Carbon Nanoparticles from Different Fuels and Their Characterization – November, 2011, Department of Chemistry, University of Dhaka.	Supervisor	2008-2009
23.	Masters	Md. Shah Alam Exam. Roll No. 4106	Batch and Continuous Column Adsorption of Rhodamine B on Used Black Tea Leaves – August, 2012, Department of Chemistry, University of Dhaka.	Supervisor	2009-2010
24.	Masters	Abu Saleh Ibne Mizan Exam. Roll No : 3403	Adsorption Kinetics of the Methylene Blue on Carbon Nano Particles Prepared from Diesel and Mobil - March 25, 2014.	Supervisor	2011-2012
25.	Masters	Md. Tanim-al-Hassan Exam. Roll No : 3409	Removal of Crystal Violet from Aqueous System by Adsorption on Used Black Tea Leaves - March 25, 2014, Department of Chemistry, University of Dhaka.	Supervisor	2011-2012
26.	Masters	Md. Lokman Hossain Exam. Roll No : 3412	Adsorptive Removal of Malachite Green from Aqueous Solution by Used Black Tea Leaves -	Supervisor	2011-2012



			March 25, 2014, Department of Chemistry, University of Dhaka.		
27.	Masters	Muhammad Ruksanul Kabir Exam. Roll No : 4703	Kinetic Study on the Adsorption of Alizarine GR on Used Black Tea Leaves from Aqueous Solution - Feb. 28, 2015, Department of Chemistry, University of Dhaka.	Supervisor	2012-2013
28.	Masters	M. S. R. Shahin Exam. Roll No : 4705	Adsorptive Removal of Congo Red from Aqueous Solution by Used Black Tea Leaves - Feb. 28, 2015.	Supervisor	2012-2013
29.	Masters	Rasel Ahmed Exam. Roll No : 1508	Adsorptive Removal of Fast Green from Aqueous Solution with Used Black Tea Leaves - April, 2016, Department of Chemistry, University of Dhaka.	Supervisor	2013-2014
30.	Masters	Liton Kumar Biswas Exam. Roll No : 1510	Adsorptive Removal of Basic violet 14 from Water using Used Black Tea Leaves - April, 2016, Department of Chemistry, University of Dhaka.	Supervisor	2013-2014
31.	Masters	Bishwjit Bonik Exam. Roll No : 3412	Adsorptive Removal of Direct Red 81 from Aqueous Solution by Used Black Tea Leaves - May, 2017, Department of Chemistry, University of Dhaka.	Supervisor	2014-2015
32.	Masters	Mohammad Zawad Hossain Exam. Roll No. 6102	Adsorptive Removal of Acid Blue 129 from Aqueous Solution by Used Black Tea Leaves - December, 2018, Department of Chemistry, University of Dhaka.	Supervisor	2016-2017
33.	Masters	Mahbulul Hasan Exam. Roll No : 6103	Preparation and Characterization of Curcumin Nanoparticles from Natural Product - December, 2018, Department of Chemistry, University of Dhaka.	Supervisor	2016-2017
34.	Masters	Ashish Vowmick Exam. Roll No : 6114	Removal of Direct Yellow 27 from Aqueous Solution by Used black Tea Leaves - January, 2019, Department of Chemistry, University of Dhaka.	Supervisor	2016-2017
35.	Masters	Raisa Tarar Nur Exam. Roll No : 108106	Adsorptive Removal of Basic Violet 4 from Aqueous Solution by Used Black Tea Leaves – June, 2023, Department of Chemistry, University of Dhaka.	Supervisor	2020-2021
36.	Masters	Abu Taleb Exam. Roll No : 108114	Adsorption Kinetics of Acid Red 1 on Carbon Nanoparticles from the Mixture of Diesel and Mobil - June, 2023, Department of Chemistry, University of Dhaka.	Supervisor	2020-2021
37.	Masters	Raisa Rahman Rafia Exam. Roll No : 108120	Equilibrium Adsorption of Acid Red-1 on Used Black Tea Leaves from Acidic Aqueous Solution – June, 2023, Department of Chemistry, University of Dhaka.	Supervisor	2020-2021
38.	Masters	Sumaya Zannat Nijhum Exam. Roll No : 141221	Equilibrium and Thermodynamic Studies of Acid Blue 29 Adsorption on Used Black Tea Leaves from Aqueous Solution – May, 2024, Department of Chemistry, University of Dhaka.	Supervisor	2021-2022
39.	BS Hons	Yeasmin Akhter Exam. Roll No. 1347	Studies on the Removal of 2, 3-Dichloro-phenol by Adsorption on Titanium (IV) Oxide-Aqueous Interface - June, 2006, Department of Chemistry, University of Dhaka.	Co-supervisor	2001-2002
40.	BS Hons	Shewly Akhter Exam. Roll No. 1356	Studies on the Removal of 2, 4-Dichloro-phenol by Adsorption on Titanium (IV) Oxide-Aqueous Interface - June, 2006, Department of Chemistry, University of Dhaka.	Co-supervisor	2001-2002
41.	BS Hons	Nafees Ahmed Exam. Roll No. 1606	Estimation of Equilibrium Time for the Adsorption of Arsenic on Used Tea Leaves and Kaolinite – Nov., 2006, Department of Chemistry, University of Dhaka.	Co-supervisor	2002-2003
42.	BS Hons	Md. Safiqul Islam Exam. Roll No. 1807	Photocatalytic Degradation of Brilliant Orange in the Presence of Hydrogen Peroxide – March, 2007, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004

43.	BS Hons	Arif Ahmed Exam. Roll No. 1812	Studies on the Adsorption of Brilliant Red on Used Tea Leaves – March, 2007, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004
44.	BS Hons	Rezina Yesmin Exam. Roll No. 1838	Removal of 2, 5-Dichlorophenol from Aqueous Solution by Adsorption and Photo- Degradation using Titanium (IV) Oxide – March, 2007, Department of Chemistry, University of Dhaka.	Co-supervisor	2003-2004
45.	BS Hons.	Md. Khairul Bashar Exam. Roll No. 1705	Studies on the Adsorption of Methylene Blue on Used Tea Leaves – Feb., 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2004-2005
46.	BS Hons	Zubair Hasan Exam. Roll No. 1720	Kinetic Study on Adsorption of Reactive Black 5 on Used Black Tea Leaves (UBTL) – February, 2008, Department of Chemistry, University of Dhaka.	Supervisor	2004-2005
47.	BS Hons	Ambia Sultana Exam. Roll No. 1741	Equilibrium Adsorption Study of Brilliant Red on Used Black Tea Leaves – February, 2008, Department of Chemistry, University of Dhaka.	Supervisor	2004-2005
48.	BS Hons	Md. Mahbbat Ali Exam. Roll No. 1712	Comparative Study of the Adsorption of Methylene Blue on Low Cost Adsorbents by Column Process – Aug., 2008, Department of Chemistry, University of Dhaka.	Co-supervisor	2005-2006
49.	BS Hons	Md. Shah Alam Exam. Roll No. : 1326	Kinetic Study on the Adsorption of Rhodamine B on Used Black Tea Leaves - December, 2010, Department of Chemistry, University of Dhaka.	Supervisor	2008-2009
50.	BS Hons	Abu Saleh Ibne Mizan Exam. Roll No. : 903	Preparation and Characterization of Carbon Nanoparticles from the Mixture of Diesel and Mobil - July, 2012, Department of Chemistry, University of Dhaka.	Supervisor	2010-2011
51.	BS Hons	Md. Tanim Al Hassan Exam. Roll No. : 918	Study on the Adsorption Kinetics of Crystal Violet on Used Black Tea Leaves - July, 2012, Department of Chemistry, University of Dhaka.	Supervisor	2010-2011
52.	BS Hons	Md. Lokman Hossain Exam. Roll No. : 921	Kinetic Study on the Adsorption of Malachite Green on Used Black Tea Leave - July, 2012, Department of Chemistry, University of Dhaka.	Supervisor	2010-2011
53.	BS Hons	Shahriar Hossain Exam. Roll No. : 2020	Kinetic and Thermodynamic Studies of the Brilliant Red Adsorption on Carbon Nanoparticles - August, 2014, Department of Chemistry, University of Dhaka.	Supervisor	2012-2013
54.	BS Hons	Rasel Ahmed Exam. Roll No. : 2040	Kinetics and Thermodynamics of Fast Green Adsorption on Used Black Tea Leaves – August, 2014, Department of Chemistry, University of Dhaka.	Supervisor	2012-2013
55.	BS Hons	Md. Mohibullah Exam. Roll No.: 1722	Adsorption Kinetics of Basic Blue 41 on Used Black Tea Leaves – Aug., 2015, Department of Chemistry, University of Dhaka.	Supervisor	2013-2014
56.	BS Hons	Anjam Sadik Exam. Roll No. : 1724	Kinetic study on the adsorption of Acid Blue-29 on used black tea leaves - August, 2015, Department of Chemistry, University of Dhaka.	Supervisor	2013-2014
57.	BS Hons	Mahbubul Hasan Exam. Roll No. : 1620 Dept. of Chemistry, DU.	Kinetics and Thermodynamics of Curcumin Extraction from Turmeric - May, 2017, Department of Chemistry, University of Dhaka.	Supervisor	2015-2016
58.	BS Hons	Raisa Rahman Rafia Exam. Roll No. : 2247	Study on the Adsorption Kinetics of Acid Red 1 on Used Black Tea Leaves – January, 2021, Department of Chemistry, University of Dhaka.	Supervisor	2018-2019
59.	BS Hons	Santa Islam Exam. Roll No. : 2249	Study of the Adsorption Kinetics of Ethyl Violet on Used Black Tea Leaves – January, 2021, Department of Chemistry, University of Dhaka.	Supervisor	2018-2019

#### List of External Examiner of Ph. D, M. Phil, MS and BS Thesis

60.	MS	Exam. Roll No. : 6622	Chemical and Spectroscopic Studies of the Removal of Hexavalent Chromium from Aquatic Media by Local Clay and Si-Containing Ferrihydrate	External	1997-1998
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			– October, 1998, Department of Chemistry, University of Dhaka.		
61.	MS	Exam. Roll No. : 1024	Removal of Crystal Violet Dye from Aqueous Solution by Using Untreated Coconut Coir (UT-CC) and Sodium Chlorite Treated-Coconut Coir (SCT-CC) – September, 2014, Department of Chemistry, University of Dhaka.	External	2013-2014
62.	MS	Exam. Roll No. : 6495	Investigation of the Dying, Color Fastness and Tensile Properties of Cotton Fabric and Jute Fiber Dyed with Punica Granatum Peel Extraction - Feb. 2017, Department of Chemistry, University of Dhaka.	External	2016-2017
63.	MS	Exam. Roll No. : 1902	Structural and Electrical Properties of Carbon Nanoparticles from Kerosene- Feb. 2018, Department of Chemistry, University of Dhaka.	External	2017-2018
64.	MS	Exam. Roll No. : 3207	Analysis of Trace Metals in Different Organs of Small and Medium Sized Hilsa Fish ( <i>Tenulosa ilisha</i> ) of Different Regions of Bangladesh and Health Risk Assessment – April 2018, Department of Fisheries, University of Dhaka.	External	2017-2018
65.	MS	Exam. Roll No. : 3208	Heavy Metals Bioaccumulation Stripped Catfish Pangasianodon Hypophthalmus (Sauvage,1878) Cultured in Mymensing Region of Bangladesh and Human Health Risk Assessment - April 2018, Department of Fisheries, University of Dhaka.	External	2017-2018
66.	MS	Exam. Roll No. : 407	Monitoring of Trace Metal Concentrations in the Surface Water, Sediment and Some Locally Consumable Fish Dhaleshwari River, Maniskgang and Health Risk Assessment – March 2019, Department of Fisheries, University of Dhaka.	External	2018-2019
67.	MS	Exam. Roll No. : 415	Analysis of Organochlorine Pesticide Residue in Capture and Culture Fisheries of Bangladesh - March 2019, Department of Fisheries, University of Dhaka.	External	2018-2019
68.	MS	Exam. Roll No. : 5157	Morphological, Spectroscopic and Thermal Analysis of Cellulose Nanocrystals Extracted from Jute Fiber by Acid Hydrolysis – August 2022, Department of Chemistry, University of Dhaka.	External	2021-2022
69.	MS	Exam. Roll No. : 5159	Method Development and Validation of Molnupiravir by HPLC Analytical Method – August 2022, Department of Chemistry, University of Dhaka.	External	2021-2022

#### O. ATTENDED CONFERENCES / SEMINARS

1.	<i>The 20th Annual Conference of Bangladesh Chemical Society</i> , March 14 – 16, 1997, Jahangirnagar University, Savar, Dhaka, <a href="#">Bangladesh</a> .
2.	<i>International Conference on Bangladesh Environment</i> , January 14–15, 2000, Bangladesh University of Engineering and Technology (BUET), Dhaka, <a href="#">Bangladesh</a> .
3.	<i>The 1st International Seminar for Engineering Frontiers (INSEF)</i> , September 6, 2002, Kanazawa University, Kanazawa, <a href="#">Japan</a> .
4.	<i>The 68th Annual Meeting of the Society of Chemical Engineers</i> , March 23 – 25, 2003, The University of Tokyo, Tokyo, <a href="#">Japan</a> .
5.	<i>The 3rd International Seminar for Engineering Frontiers (INSEF) and The 21st Century COE Program Seminar</i> , September 27, 2003, Kanazawa University, Kanazawa, <a href="#">Japan</a> .
6.	<i>The 3rd International Symposium on Slow Dynamics in Complex Systems</i> , Nov. 3-8, 2003, Tohoku University, Sendai, <a href="#">Japan</a> .
7.	<i>The 43rd Annual Conference of Japanese Society for Medical and Biological Engineering</i> , May 19 – 21, 2004, Kanazawa, <a href="#">Japan</a> .
8.	<i>The 4th International Seminar for Engineering Frontiers</i> , August 6, 2004, Kanazawa University, Kanazawa, <a href="#">Japan</a> .

9.	<i>The 10th Asian Pacific Congress of Chemical Engineering (APCChE 04)</i> , October 17 – 21, 2004, Kitakyushu, <u>Japan</u> .
10.	<i>The 70th Annual Meeting of the Society of Chemical Engineers, Japan (SEEJ)</i> , March 22 –24, 2005, Nagoya University, Nagoya, <u>Japan</u> .
11.	<i>The 35th Annual Meeting of the Society of the Separation Process Engineers, Japan</i> , June 3 – 4, 2005, Osaka City University, Osaka, <u>Japan</u> .
12.	<i>The 2nd Symposium on Advanced High Performance Materials and Technology in Kanazawa</i> , September 09, 2005, COE, Kanazawa University, Kanazawa, <u>Japan</u> .
13.	<i>The 7th World Congress of Chemical Engineering: Incorporating the 5th European Congress of Chemical Engineering</i> , July 10 – 14, 2005, Glasgow, Scotland, (Institution of Chemical Engineers) <u>UK</u> .
14.	<i>The necessity of financing for the small industries and research organizations to overcome the environmental pollution of developing countries</i> ”- An International Conference of United Nations “Doha Global Civil Society Forum on Financing for Development” - 25 to 27 November 2008 in Doha, <u>Qatar</u> .
15.	Follow-up <i>International Conference on Financing for Development to Review the Implementation of the Monterrey Consensus</i> - 29 to 2 Dec. 2008 in Doha, Qatar, Organized by United Nations, <u>Qatar</u> .
16.	Symposium on " <i>Melamine, Its Health Hazards and Detection</i> ", 3 December 2008, MHK Biggan Bhaban, University of Dhaka, Bangladesh; Organized by the Institute of Chemists and Chemical Technologists (ICCT) and Bangladesh Chemical Society (BCS), <u>Bangladesh</u> .
17.	<i>Bangladesh Chemical Congress 2008 (31<sup>st</sup> Annual Conference of Bangladesh Chemical Society)</i> , Chemistry for Clean Water, 30 January - 01 February, 2009, Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, <u>Bangladesh</u> .
18.	<i>Symposium of Bangladesh Chemical Society on Chemistry Education in Bangladesh</i> - October 31, 2009, Nabab Nawab Ali Chowdhury Senate Bhaban, University of Dhaka, Bangladesh; Organized by the Bangladesh Chemical Society (BCS), <u>Bangladesh</u> .
19.	<i>32nd Annual Conference of Bangladesh Chemical Society</i> ; December 26, 2009, ( <i>Bangladesh Council of Scientific and Industrial Research (BCSIR)</i> ), Dr. Qudrat-I-Khuda Road, Danmondi, Dhaka-1205, <u>Bangladesh</u> .
20.	<i>Seminar on Organic Pollutants in Food, Crops and Environment</i> , 07-08 December 2009, MHK Biggan Bhaban, University of Dhaka, Dhaka-1000, Bangladesh, Organized by Chemistry Department of Dhaka University.
21.	<i>Young Scientists Congress (YSC-2009) 2009</i> , 29-30 December, 2009, National Museum of Science and Technology Auditorium, Agargaon, Dhaka 1207, Bangladesh; Organized by Bangladesh Academy of Sciences (BAS) in Collaboration with Inter Academy Panel on International Issues (IAP) and the Academy of Sciences for the Developing World (TWAS), <u>Bangladesh</u> .
22.	<i>Bangladesh Chemical Congress 2010 (33<sup>rd</sup> Annual Conference of Bangladesh Chemical Society)</i> , Chemistry for Friendly Environment, 10 - 12 December 2010, Jahangirnagar University, Savar, Dhaka, <u>Bangladesh</u> .
23.	<i>International Workshop on Nanotechnology</i> ,, Nanotechnology and its Prospects in Bangladesh, 21-23 September 2012, Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, <u>Bangladesh</u> .
24.	<i>Bangladesh Chemical Congress 2012 (35<sup>th</sup> Annual Conference of Bangladesh Chemical Society)</i> , Chemistry for Sustainable Development, 07 - 09 December 2012, Bangladesh Council of Scientific and Industrial Research (BCSIR), Mirpur Road, Dhaka-1205, <u>Bangladesh</u> .
25.	The 16th Asian Chemical Congress (16ACC), 16-19 March, 2016, BUET Campus and Pan Pacific Sonargaon Hotel, Dhaka, Bangladesh; Chemistry for Humanity, Organized by- Bangladesh Chemical Society (BCS) and Under the auspices of Federation of Asian Chemical Societies (FACS), <u>Bangladesh</u> .
26.	International Conference on Researches in Science and Technology (ICRST-19), June 28-30, 2019, Crystal Grand Hotel Ishtar Abu Nuw'as Street, Baghdad, <u>Iraq</u> .
27.	2nd International Conference on Materials Engineering & Science (IConMEAS 2019), September 25-26, 2019; University of Technology Baghdad, <u>Iraq</u> .

#### P. ATTENDED TRAINING, WORKSHOPS AND VISITED INDUSTRIES

28.	Workshop on the Modern Recovery of Metal Ions from Electroplating Industry; June 09, 2000, <b>YKK</b> (Textile Materials and Household Manufacturing Industry), Toyama, <u>Japan</u> .
29.	Demonstration of the Modern Technique of Industrial Wastewater Discharge; March 15, 2001, <b>DENSO</b> Corporation (Manufacturing of Parts of Car and Electronic, etc.), Nagoya, <u>Japan</u> .

30.	Demonstration of the Treatment of Metal Industry's Wastewater, March 16, 2001, <b>Rinnai</b> (Electric Heater, Oven, Hearth, etc. Manufacturing Industry), Nagoya, <u>Japan</u> .
31.	Workshop on the Recovery of Aluminium Ions from Industrial Wastewater; September 05, 2001, <b>Honda Metal Industries</b> (Manufacturing of Aluminium House-hold), Ltd., Gifu, <u>Japan</u> .
32.	Workshop on the Recycling of Organic Pollutants; September 13, 2001, <b>Unitika Ltd.</b> (Nylon, Plastic, Glass Fiber, Fabrics, Fibrous Activated Carbon, etc. Plants), Kyoto, <u>Japan</u> .
33.	Demonstration of the Bio-degradable System for the Treatment of Wastewater; September 14, 2001, <b>Shimadzu Corporation</b> (Manufacturing of all Types of Physical, Chemical, Medical, Industrial and Aircraft Equipments), Kyoto, <u>Japan</u> .
34.	Workshop on the Treatment of City Solid Waste; February 26, 2003, <b>Kanazawa City Cleaning Center</b> , Kanazawa, <u>Japan</u> .
35.	Demonstration of the Production of Electrical Energy and Road Constructing Materials from Plastic Waste Materials; February 26, 2003, <b>Ishikawa North RDF</b> (Refused Derived Fuel), Hakyoe-gon, Shikamachi, Ishikawa Prefecture, <u>Japan</u> .
36.	Demonstration of the Production of Graphite and Activated Carbon Electrode and Filters and their Use in the Water Treatment Processes; December 24, 2003, <b>NCK and Resbon</b> (Nippon Carbon Co. Ltd.), Toyama, <u>Japan</u> .
37.	Demonstration of the Assembling of Toyota Car and Wastewater Treatment System in <b>Toyota Motor Industry</b> , August 30-31, 2005, Nagoya, <u>Japan</u> .
38.	Training Program on the " <b>Application, Instrumentation and Operation of FTIR, HPLC, TOC and UV-Spectrophotometer</b> "- July 13-28, 2008, Center of Excellence (COE), Dhaka University, <u>Bangladesh</u> .
39.	<i>Training Program on the "Application, Instrumentation and Operation of Scanning Electron Microscope (SEM)</i> - May 31, 2009 to June 7 2009, Center of Excellence (COE), Dhaka University, Dhaka-1000, <u>Bangladesh</u> .
40.	Workshop on the <b>International Ozone Day</b> 2009, Universal Participation: Ozone Protection Unifies the World, 16 September 2009, Department of Environment, Ministry of Environment and Forests, Govt. of the People's Republic of <u>Bangladesh</u> .
41.	<b>Workshop on Chemical Hazards, Safety and Environment</b> , 16-17 January 2010, MHK Biggan Bhaban (300), University of Dhaka, Bangladesh; Organized by the Institute of Chemists and Chemical Technologists, Bangladesh (ICCTB) and Bangladesh Chemical Society (BCS), <u>Bangladesh</u> .
42.	Workshop on <b>Safe Laboratory Practices</b> , 16-19 October 2010, MHK Biggan Bhaban, University of Dhaka, Bangladesh; Organized by the Bangladesh Society for Pharmaceutical Professionals, Institute of Chemists and Chemical Technologists, Bangladesh (ICCTB) and Bangladesh Chemical Society (BCS), <u>Bangladesh</u> .
43.	Workshop on the <b>International Year of Chemistry 2011</b> (IYC-2011), 14 February 2011, Department of Chemistry, University of Dhaka, <u>Bangladesh</u> .
44.	<b>International Workshop on Nanotechnology</b> , Nanotechnology and its Prospects in Bangladesh, 21-23 September 2012, Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, <u>Bangladesh</u> .
45.	As a Resource Person in the " <b>Workshop on Treatment of Water and Wastewater</b> "- 20 to 22 June, 2014, Mukarram Hussain Khundker Biggan Bhaban, Department of chemistry, Dhaka University, Dhaka-1000, <u>Bangladesh</u> .

#### Q. TEACHING COURSES (Selected)

PC 502	Advanced Surface Chemistry and Catalysis (DU)
PC 506	Chemistry of the Atmospheric Environment (DU)
PCL 515	Physical and Environmental Chemistry Laboratory (DU)
CH 482	Applied Physical Chemistry (DU)
CHL 403	Physical Chemistry Laboratory III (DU)
CH 301	Chemical Kinetics and Photochemistry (DU)
CH 302	Surface Chemistry, Colloid Science and Phase Equilibrium (DU)
CHL 303	Physical Chemistry Laboratory II (DU)
CH 201	Chemical Thermodynamics (DU)
ENV 201	Environmental Chemistry (IUB)
CHL 202	Physical Chemistry Laboratory I (DU)

CHE 201L	Environmental Chemistry Lab. (IUB)
CH 101	Physical Chemistry I (DU)
CMG 100	Fundamentals of Chemistry (DU)
CMGL 100	General Chemistry Laboratory (DU)
CHE 101L.	Chemistry Lab. (IUB)

## R. STUDIED COURSES

**Courses of First Year Honours in Chemistry at Dhaka University (1989-1990):** P 101F: General Physical Chemistry, O 102F: General Organic Chemistry, I 104F: Principles of Inorganic, OL 103H: Simple laboratory techniques and their uses in organic, IL 105F: Inorganic Chemistry Laboratory (Qualitative Inorganic Analysis, Synthetic Inorganic Chemistry and Elementary Crystal Chemistry),

**Courses of Second Year Honours in Chemistry at Dhaka University (1990-1991):** P 201H: Thermodynamics and Statistical thermodynamics, P 202H: Electrochemistry, O 204H: Organic Reaction Mechanism, O 205H: Organic Stereochemistry, I 206H: Inorganic Chemistry of Representative Elements I, I 207H: Inorganic Chemistry of Representative Elements II, A 209H: Inorganic Industrial and Environmental Chemistry I, PL 203H: Physical Chemistry Laboratory, IL 208F: Inorganic Chemistry Laboratory (Quantitative Inorganic Analysis and Analytical Techniques),

**Courses of Third Year Honours in Chemistry at Dhaka University (1991-1992):** P 301F: Chemical Kinetics, Surface Chemistry, Phase Equilibria, etc., O 303H: Natural Product Chemistry, O 304H: Carbohydrates and Polymers, I 306H: Advanced Inorganic Chemistry I, I 307H: Advanced Inorganic Chemistry II, A 309H: Inorganic Industrial and Environmental Chemistry II, A 310H: Organic Industrial and Environmental Chemistry III, A 311H: Organic Industrial and Environmental Chemistry IV, Q 313H: Quantum Mechanics and Chemical Spectroscopy, N 314H: Nuclear and Analytical Chemistry, PL 302F: Physical Chemistry Laboratory, OL 305F: Organic Chemistry Laboratory (Identification and Synthesis of Organic Compounds), IL 308H: Advanced Inorganic Synthesis and Characterization, AL 312H: Industrial and Environmental Chemistry Laboratory II,

**B. Sc. Honours in Chemistry at Dhaka University (1992):** [Total marks: 2000 (Chemistry) + 600 (Physics and Mathematics as Subsidiary or Minor courses)]

**Courses of Master of Science in Physical-Inorganic Chemistry at Dhaka University (1993):** 501H: Analytical Chemistry, 502H: Chemical Spectroscopy, 503F: Quantum Chemistry and Statistical Mechanics, 504F: Chemical Crystallography and Solid State Chemistry, 505H: Coordination Chemistry and Reaction Mechanism, 506H: Advanced Concept of Atomic Structure and Chemical Bonding, 507H: Advanced Chemical Kinetics, 509H: Advanced Electro-and Solar Photochemistry, 520F: Physical, and Environmental Chemistry, Thesis Report - 200 Marks. (Total: 800 Marks).

**Courses of Master of Science in Material Engineering (M. Eng.) at Kanazawa University (2001-2003):** Outline of Applied Chemistry and Chemical Engineering, Advanced Thermodynamics, Fluid Phase and Transport Properties, Separation Process, Advanced Heat Transfer, Resources and Energy Utilization Engineering, Reaction Engineering, Separation and Analytical Chemistry, Environmental Chemistry, Seminar on Material Engineering, and Exercise on Material Engineering, Thesis Report; 10 Credits, (*Total: 32 Credits*).

**Courses of Doctor of Philosophy (Ph. D.) in Environmental Science and Engineering at Kanazawa, Japan (2003-2006):** Ecological Energy, Environmental Aerosols, Recycle Engineering, Transport Phenomenon, Environmental Compatible Science, Water Pollution Control Engineering. Thesis Report: 20 Credits, (*Total: 32 Credits*).


## S. INVITED LECTURE (SELECTED)

1.	Invited Talk: SEM-EDX and ATR-IR Studies of the Mechanistic Insight into Efficient Removal of Chromium (VI) from Aqueous Solution by Very Small Surface Area Contained Adsorbent, 2nd International Conference on Materials Engineering & Science (IConMEAS 2019) (Online), University of Technology Baghdad, Iraq, September 25-26, 2019.
2.	Invited Talk: <i>Equilibrium Adsorption of Cr(VI) on Dust Black Tea Leaves from Aquatic Environment</i> , ID: IITER_03156, International Conference on Researches in Science and Technology (ICRST-19) (Online), Crystal Grand Hotel Ishtar Abu Nuw'as Street, Baghdad, Iraq. June 28-30, 2019.
3.	TV Talk Excess Amount of Chromium Transport from Tannery to Human Body Through Poultry Feed in Bangladesh and Its Carcinogenic Effects, n-TV, April 16, 2014.

4.	Invited Talk: Preparation and Characterization of Carbon Nanoparticles from the Mixture of Diesel and Mobil, <i>International Workshop on Nanotechnology and its Prospects in Bangladesh</i> , Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, Bangladesh, September 21-23, 2012.
5.	Synthesis and Characterization of Carbon Nanoparticles from Kerosene, <i>International Workshop on Nanotechnology and its Prospects in Bangladesh</i> , Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, Bangladesh, September 21-23, 2012.
6.	A Simplified Method for Evaluation of Adsorptive Characteristics of Brilliant Red on Biomass, <i>Bangladesh Chemical Congress 2010 (33rd Annual Conference of Bangladesh Chemical Society)</i> , Chemistry for Friendly Environment, Jahangirnagar University, Savar, Dhaka, <b>Bangladesh</b> , December 10 – 12, 2010.
7.	Removal of Pb(II) from Aqueous Solution by Sorption on Used Black Tea Leaves, <i>Bangladesh Chemical Congress 2008 (31st Annual Conference of Bangladesh Chemical Society)</i> , Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka-1000, <b>Bangladesh</b> , January 30 – Feb. 01, 2009.
8.	Invited Lecture: The necessity of Financing for the Small Industries and Research Organizations to Overcome the Environmental Pollution of Developing Countries"- <i>An International Conference of United Nations</i> "Doha Global Civil Society Forum on Financing for Development, Doha, <b>Qatar</b> , November 25-27, 2008.
9.	Effective Removal of Cr(VI) from Aqueous Solution by Sorption on Used Black Tea Leaves, 7th World Congress of Chemical Engineering <i>Incorporating the 5th European Congress of Chemical Engineering</i> , Glasgow, Scotland, <b>UK</b> , July 10–14, 2005.
10.	Adsorption Behavior of Cr(VI) on Used Black Tea Leaves, <i>The 35th Annual Meeting of the Society of Separation Process Engineers, Japan</i> , Osaka City University, Osaka, Japan, June 3 – 4, 2005
11.	Operation Factors Affecting the External Mass Transfer During the Liquid Phase Adsorption of Cr(VI) on Used Black Tea Leaves, <i>The 70th Annual Meeting of the Society of Chemical Engineers, Japan (SCEJ)</i> , Nagoya University, Nagoya, <b>Japan</b> , March 22 – 24, 2005.
12.	Adsorption Mechanism of Hexavalent Chromium on Used Black Tea Leaves, <i>The 10th Asian Pacific Congress of Chemical Engineering (APCCChE 04)</i> , Kitakyushu International Conference Center, Kitakyushu, <b>Japan</b> , October 17 – 21, 2004.
13.	Sorption Dynamic of Cr(VI) on Used Black Tea Leaves"- <i>CsE-T2: Complex System</i> , p. 149, <i>The 3rd International Symposium on Slow Dynamics in Complex Systems</i> , , Tohoku University, Sendai, <b>Japan</b> , Nov. 3 – 8, 2003
14.	Treatment of Wastewater Containing Toxic Heavy Metal [Cr(VI)] with Used Tea Leaves, Department of Chemical Engineering and Chemical Technology, Kanazawa University, Kanazawa, <b>Japan</b> , Feb. 06, 2003.
15.	Removal Characteristics of Cr(VI) from Wastewater by Used Black Tea Leaves"- <i>F205: Environmental Safety</i> , <i>The 68th Annual Meeting of the Society of Chemical Engineers (SCEJ)</i> , The University of Tokyo, Tokyo, <b>Japan</b> , March 23 – 25, 2003.
16.	Removal of Cr(VI) from Aquatic Environment by different Tea-leaves, <i>Surface Water Pollution and Management-I, International Conference on Bangladesh Environment</i> , Bangladesh University of Engineering and Technology (BUET), Dhaka, <b>Bangladesh</b> , January 14 – 15, 2000.
17.	Effect of pH on the Adsorption of Cr(VI) on Used Tea leaves"- <i>S5: Physical and Radiation Chemistry</i> , p. 37, <i>20th Annual Conference of Bangladesh Chemical Society</i> , Jahangirnagar University, Savar, Dhaka, <b>Bangladesh</b> , March 14 – 16, 1997.
18.	Removal of Cr(VI) from Environment by Adsorption on Used Tea Leaves" February-1997, Department of Chemistry, University of Dhaka, Dhaka-1000, <b>Bangladesh</b> , February 28, 1997.

#### T. INTERVIEW WITH MEDIA (SELECTED)

1.	Talk and Demonstration as a Chemical Expert: Transport of Chromium from Tannery Industries to Poultry Meat as well as Human Body, <i>Mobile Court of RAB-4 (Rapid Action Battalion-4)</i> , TV Media and Local Peoples at Hazaribagh Area, Dhaka, <b>Bangladesh</b> , March 19, 2014.
2.	Talk on "Transport of toxic chromium from tannery waste to Human body through poultry feed" with <b>Debbie M. Price</b> (Reporter of <i>The Washington Post</i> and the <i>Philadelphia Daily News</i> , Executive Editor, Columnist & Writer of <i>Fort Worth Star-Telegram</i> , and Co-owner at <i>Price Publishing/Creative</i> , L.L.C. Dayton, Ohio Area, USA), , over Telephone,

3.	<a href="https://undark.org/2017/02/21/leather-tanning-bangladesh-india/">https://undark.org/2017/02/21/leather-tanning-bangladesh-india/</a> Skin Deep: Feeding the Global Lust for Leather - By Debbie M. Price, UNDARK Magazine, 02.21.2017
4.	<a href="https://undark.org/tag/leather-tanning/">https://undark.org/tag/leather-tanning/</a> leather tanning- 

#### U. MEMBER OF PROFESSIONAL SCIENTIFIC

1. The Society of Chemical Engineers, Japan (SCEJ) (2002-2006)
2. American Chemical Society (ACS), USA (2004-Current)
3. Royal Society of Chemistry (RSC) (Associate Member), UK (2005-Current)
4. Institute of Chemical Engineers (IChemE), UK (2005-Current)
5. International Adsorption Society (IAS), USA (2002-2006)
6. Japanese Universities Alumni Association of Bangladesh (JUAAB) (Life Member) (2008-Current)
7. Bangladesh Chemical Society (Life Member # LM-642) (1999- Current)
8. Dhaka University Chemistry Alumni Association (Life Member # LM-46) (2017-Current)
9. Dhaka University Alumni Association (Life Member # LM-11236) (2020-Current)
10. Registered Graduate, Dhaka University (Life Member) (1998-Current)

#### V. REVIEWER OF SCIENTIFIC JOURNALS

1. **Analytical Chemistry** (An International Journal of American Chemical Society).
2. **Separation Science and Technology** (An International Journal Published by Taylor & Francis Group).
3. **Journal of Hazardous Materials** (An International Journal Published by Elsevier).
4. **Journal of Chemical Technology and Biotechnology** (Published by WILEY Inter Science).
5. **African Journal of Environmental Science and Technology** (academicjournals.org, Africa).
6. **International Journal of Physical Sciences** (academicjournals.org, Africa).
7. **African Journal of Pure and Applied Chemistry** (academicjournals.org, Africa).
8. **Physical Chemistry** (Scientific & Academic Publishing, Rosemead, USA).
9. **Science and Technology** (Scientific & Academic Publishing, Rosemead, USA).
10. **Dhaka University Journal of Sciences** (University of Dhaka, Bangladesh).
11. **International Research Journal of Pure and Applied Chemistry** (SCIENCEDOMAIN international, org, UK, USA, India).
12. **Journal of Material Science**, Poland
13. **Environmental chemistry letters** Elsevier.
14. **Journal of religion and health**, Elsevier.
15. **Journal of the Iranian Chemical Society**, Elsevier.

**SIGNATURE:**

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(DR. MOHAMMAD ABUL HOSSAIN)



## Some Authentic Documents



ঢাকা, বৃহস্পতিবার, ২০ মার্চ ২০১৪, ৬ চৈত্র ১৪২০, ১৭ জমা. আউয়াল ১৪৩৫

### ঢ্যানারি বর্জ্য তৈরি হচ্ছে মুরগি ও মাছের খাবার

হাজারিবাগে তিন হাজার বস্তা জন্ম, কারখানায় তালা

আবুল খায়ের



ঢ্যানারি বর্জ্য দিয়ে তৈরি হচ্ছে মুরগি ও মাছের খাবার। একশ্রেণীর অতি মুনাফালোভী ব্যবসায়ী এই খাবার তৈরি করে মুরগির খামারি ও মাছ চাষীদের কাছে বিক্রি করছেন। রাজধানীর হাজারীবাগ ঢ্যানারীর কাছে বেড়িবাঁধ সংলগ্ন এলাকায় গড়ে উঠেছে এই খাবার তৈরির কারখানা। গতকাল বৃহবার মোবাইল কোর্ট অভিযান চালিয়ে এই কারখানার সন্ধান পায় ও প্রায় তিন হাজার বস্তা খাবার জন্ম করে। পরে মালিকের বিরুদ্ধে মামলা করে কারখানাটিতে তালা ঝুলিয়ে দেয় কোর্ট। যাব-৪ এর উপ-অধিনায়ক মেজর আরিফুর রহমান ও নির্বাহী ম্যাজিস্ট্রেট আলামিন-এর নেতৃত্বে মোবাইল কোর্ট মকবুল আহমেদের মালিকানাধীন মুরগি ও মাছের খাবার তৈরির ওই কারখানায় অভিযান চালায়। তারা দেখতে পায় ঢ্যানারির কাঁচা চামড়ার বর্জ্য সংগ্রহ করে ঐ কারখানায় মুরগি ও মাছের খাবার তৈরি হচ্ছে। এ সময় ঢাকা বিশ্ববিদ্যালয়ের রসায়ন বিভাগের দুই গবেষক উপস্থিত ছিলেন। তাদের একজন ড. আবুল হোসেন কারখানার জন্মকৃত মুরগি ও মাছের খাবার পরীক্ষা করে বলেন যে ঢ্যানারীর বর্জ্যে তৈরি এই মুরগি ও মাছের খাবারে মানবদেহের জন্য ক্ষতিকর 'ক্রোমিয়াম' (এক ধরণের ভারী ধাতু) রয়েছে। পরে মোবাইল কোর্ট কারখানা থেকে ৩ হাজার বস্তা মুরগি ও মাছের খাবার জন্ম করে কারখানাটি সিলগালা করে দেয়। এ ঘটনায় প্রাণীসম্পদ অধিদপ্তরের সহকারী পরিচালক ড. লুতফর রহমান বাদি হয়ে কারখানার মালিক মকবুল আহমেদের বিরুদ্ধে মামলা করেছেন।



### 5 DU teachers and 17 students get Dean's Award



A total of 17 students of various departments under the Faculty of Science of Dhaka University (DU) have been Awarded 'Dean's Award' for their outstanding academic results in BS honours examination of 2013. Besides, 5 teachers of the Faculty of Science have received Deans Award for their extra-ordinary contribution in original research and writing books. Dhaka University Vice-Chancellor Prof. Dr. AAMS Arefin Siddique distributed certificates among the awardees as chief guest at a function held today (Wednesday), December 09, 2015 at Nabab Nawab Ali Chowdhury Senate Bhaban of the university.

(Md. Rafiqul Islam, Assistant Director, Public Relations Office, University of Dhaka)

Professor Dr. Mohammad Abul Hossain has been nominated for the Award of the King Faisal International Prize (Arab Nobel Prize, Riyadh, Saudi Arabia) in Chemistry for 2015 by the authority of Dhaka University, proposed by the C & D of Chemistry Department of Dhaka University, Bangladesh, April 28, 2014.

**Office of the Registrar**

**University of Dhaka**

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রেজিস্ট্রারের অফিস

ঢাকা বিশ্ববিদ্যালয়

ঢাকা-১০০০, বাংলাদেশ

ফোন : ৮৬১৪১৫০, ৯৬৬১৯০০/৪০২০(অ)

ফ্যাক্স : ৮৮০-২-৮৬১৫৫৮৩

Dated: 28-04-2014

The General Secretary  
The General Secretariat  
King Faisal International Prize  
Al-Khairia Building, King Fahd Road  
P.O. Box 22476-Riyadh 11495  
Saudi Arabia.

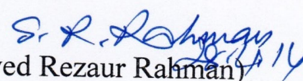
**Sub: Application for the Submission of Nomination for the King Faisal International Prize 2015 for Science (Chemistry).**

Dear Sir,

With reference of your circulation about the Nomination for the King Faisal International Prize 2015 for Science (Chemistry), I am directed to forward herewith an application together with necessary papers of Professor Dr. Mohammad Abul Hossain, Department of Chemistry, University of Dhaka, Bangladesh.


Thanking you.

Sincerely yours,

  
(Syed Rezaur Rahman)  
Registrar (Acting)  
University of Dhaka.  
Bangladesh


**N: T: Hard Copies of all Documents have sent by airmail (DHL) to The General Secretariat, King Faisal International Prize, Al-Khairia Building, King Fahd Road, P.O. Box 22476-Riyadh 11495, Saudi Arabia.**

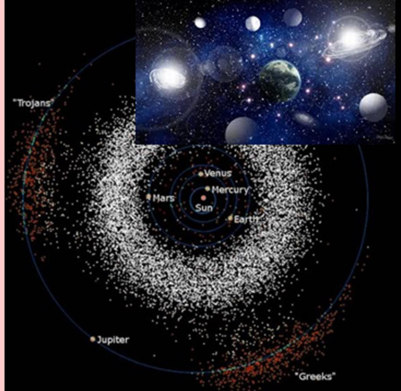
# Graphical Summary of the Article-1 Nominated for the King Faisal International Prize (Arab Nobel Prize, Riyadh, Saudi Arabia) in Chemistry for 2015





**Everything of the Universe is Made of Light: Theory for Everything**

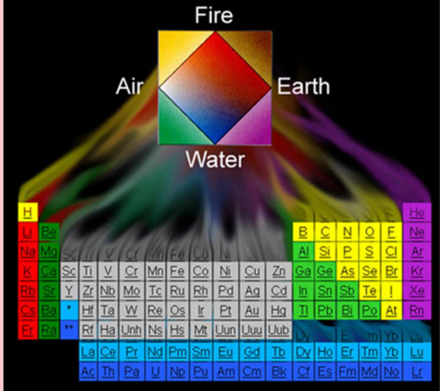
**Professor Dr. Mohammad Abul Hossain**  
Department of Chemistry, University of Dhaka, Dhaka-1000, Bangladesh





**Universe**



**118 Elements (Dec. 2018)**  
(Basic composition of the Universe)

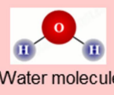
★ **Albarr Einstein's special theory of relativity**  
Energy ( $E$ ) of subatomic particle, e.g. electrons, protons, neutrons, etc is related with its mass ( $m$ ),  
 $E = mc^2$  where,  $c$  is the speed of light  $\approx 3 \times 10^8 \text{ m}\cdot\text{s}^{-1}$

★ **Max Planck's quantum theory**  
All electromagnetic radiations are combination of flow of photons or Quanta (Bundle) of Energy ( $E$ ),  
 $E = h\nu$  where,  $h$  is the Planck constant  $= 4.136 \times 10^{-15} \text{ eV}\cdot\text{s}$   
 $= 6.62607 \times 10^{-34} \text{ J}\cdot\text{s}$   
 $\nu$  = frequency of radiation (Hz)

➤ **From the combination of the theory of relativity and quantum theory**  
$$m = \frac{h\nu}{c^2}$$

★ **Louis de Broglie's equation**  
Sub-atomic particles: electrons, protons, neutrons, etc have dual nature; **particle** and **wave** properties.

➤ **Light is the constituent of water**



2 Atoms Hydrogen + 1 Atom Oxygen = 3 Atoms

2 electrons + 8 electrons = 10 electrons  
2 protons + 8 protons = 10 protons  
0 neutron + 8 neutrons = 8 neutrons

All are mass particles convertible to light energy

☞ **Light produces from mass in stars (sun) and galaxies**  
 $^{11}\text{H} + ^{11}\text{H} \rightarrow ^{21}\text{H} + ^0_1\text{e} + \nu$  (photon)

☞ **Mass produces from light by photosynthesis in plants**  
 $6\text{CO}_2 + 12\text{H}_2\text{O} \xrightarrow[\text{Chlorophyll}]{h\nu(\text{sunlight})} \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O} \quad E = 2870 \text{ kJ}\cdot\text{mol}^{-1}$

☞ **By nuclear reaction, atomic nuclear mass converts into energy-quanta or light**

$\beta$ -decay:  $^{137}_{55}\text{Cs} \rightarrow ^{137}_{56}\text{Ba} + ^0_{-1}\text{e} + \nu$  (photon)  
 $\gamma$ -decay:  $^{137}_{56}\text{Ba}^* \rightarrow ^{137}_{56}\text{Ba} + \gamma$  (gamma ray, also quanta of light or photons)

**Subatomic particles**

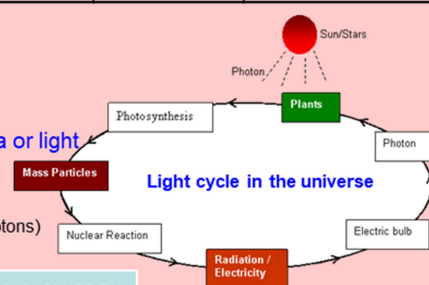
Photon $\gamma$	Up Quark $u$	Proton $P^+$
Electron $e^-$	Down Quark $d$	Neutron $N^0$

Fundamental forces/Bosons particles: *Gluons* bosons, Weak bosons, Photons, Gravitons bosons, Higgs boson, etc.

**Rest masses and energy equivalents of various particles of atom**

Atomic particles Symbol Charge	Mass (kg)	Energy equivalent (MeV)
Electron ( $e^-$ ) (-1)	$9.1095 \times 10^{-31}$	0.511
Proton ( $p^+$ ) (+)	$1.6726 \times 10^{-27}$	938.28
Neutron ( $n^0$ ) (0)	$1.6750 \times 10^{-27}$	939.57

**Light cycle in the universe**



Published: *Journal of Science and Today's World*, Vol. 2, No. 9, pp. 1267-1272, Sept. 30, 2013, SWEDEN.

Curriculum Vitae of Professor Dr. Mohammad Abul Hossain: updated on September 26, 2024

Page 27 of 31

# Graphical Summary of the Article-2 Nominated for the King Faisal International Prize (Arab Nobel Prize, Riyadh, Saudi Arabia) in Chemistry for 2015



## Application of Special Theory of Relativity, Quantum Mechanics and Dark Plasma Theory to Evaluate the Heart and Soul are Light

**Professor Dr. Mohammad Abul Hossain**

Department of Chemistry, University of Dhaka, Dhaka-1000, Bangladesh

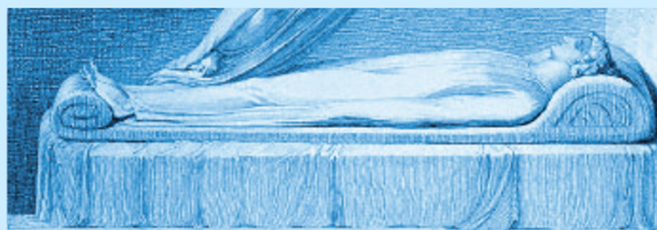


Figure 1: Weight measurement of a man before and after death: mass of soul

Table 1: Estimated weight of human soul from different sources

Year	Source of Measurement	Sensitivity of Measurement	Weight of Soul (kg)
1907	Dr. Duncan McDougall	Beam Balance Scale ( $\pm 1$ g)	$21 \times 10^{-3}$
1988	Noetic Science Experiment	Digital Balance ( $\pm 0.0003$ g)	$1 \times 10^{-5}$
2011	Dark Matter Statistics	Mean Density of Dark Matter ( $\pm 10^{-14}$ kg cm $^{-3}$ )	$1 \times 10^{-8}$

### ★ Albert Einstein's special theory of relativity

Energy ( $E$ ) of subatomic particle, e.g. electrons, protons, neutrons, etc is related with its mass ( $m$ ):

$$E = mc^2 \quad \text{where, } c \text{ is the speed of light } \approx 3 \times 10^8 \text{ m s}^{-1}$$

### ★ Max Planck's quantum theory

All electromagnetic radiations are combination of flow of photons or Quanta (Bundle) of Energy

$$E = h\nu \quad \text{where, } h \text{ is the Planck constant} = 4.136 \times 10^{-15} \text{ eV} \cdot \text{s} = 6.62607 \times 10^{-34} \text{ J s}$$

$\nu$  = frequency of radiation (Hz)

➤ From the combination of the theory of relativity and quantum theory:  $m = \frac{h\nu}{c^2}$

### ★ Albert Einstein's photoelectric effect

The electrons of many materials can be emitted by the action of light

Table 2: Rest masses and energy equivalents of soul like as subatomic particles

Source of Measurement	Mass of Soul (kg)	Energy equivalent of soul (GeV)		
		Electron like particle	Proton like particle	Neutron like particle
Noetic Science Experiment	$1 \times 10^{-6}$	$5.6098 \times 10^{20}$	$5.6094 \times 10^{20}$	$5.6094 \times 10^{20}$
Dark Matter Statistics	$1 \times 10^{-9}$	$5.6098 \times 10^{17}$	$5.6094 \times 10^{17}$	$5.6094 \times 10^{17}$

Table 3: Comparison of soul energy with ultra high energy particle

(N.B.:  $5.61 \times 10^{20}$  GeV =  $5.61 \times 10^{29}$  eV)

Particles	Equivalent Energy (eV)	Frequency (Hz)
Human soul particle	$5.61 \times 10^{29}$ or $5.61 \times 10^{26}$	$1.37 \times 10^{44}$ or $1.37 \times 10^{41}$
An ultra high energetic cosmic ray particle, proton "Oh My God particle" (Received Nobel Prize in 2015)	$3.2 \times 10^{20}$	$7.74 \times 10^{34}$

Actually, heart (mind) exists in the body as a super-object of soul and soul is the controlling power of heart and body; ultimately, heart and soul are same thing as a high energy quantum of light having dual nature: particle (heart) and wave (soul) properties. When this quantum energy exists in the heart of living system- known as heart (mind) and when this energy exist in empty space like photon - known as soul.

### ★ Dark Plasma theory (2006)

A substantial amount of dark matter particles is composed of dark plasma and radiates dark light or dark photons. These bio-plasma /dark plasma bodies can therefore manipulate the degree of opacity and intensity of radiation of their bodies by changing their internal plasma frequencies—allowing the bodies to apparently appear, disappear or fade away.



Dark Plasma Theory (2006)

Published: *Journal of Science and Today's World*, Vol. 3, No. 5, pp. 150-155, April 30, 2014, SWEDEN.

Ph. D. Research Achievement of Prof. M. Abul Hossain in Japan was published as a Hot Topic in Japanese National Television (NHK- TV) and National Daily News Paper (Hokkuko Shinbun) on 06-01-2005.

(17) 2005-01-06 (Thursday) Hokkuko Shinbun  
 (17) 地方社会 2005年(平成17年)1月6日(木曜日) 北 國 新

# 紅茶の葉で水質浄化

金大大学院自然科学研究科・工学部の森教授(環境化学工学)らの研究グループが、出がらしの紅茶の葉に有害な六価クロムを吸着する作用を確認した。水質汚染が深刻な発展途上国で応用できる、安価で簡単な排水処理を探っている。

研究はハンガリー・ブダペストのハンコシュ・アプレン博士後期課程2年1が森教授の指導で進めている。アブルさんによると、母国ではメッキ工場や皮革のなめし工場で六価クロムが

使われているが、法規制が緩く、零細工場が多いため、排水処理をしないまま流しているケースもあり、水質汚染が社会問題となっている。

森教授とアブルさんは

有害物質の吸着作用確認  
 途上国の排水処理に

日本の排水処理ほど高性能ではなくとも安価で簡単に六価クロムを除去する方法の開発に乗り出した。ハンコシュで大きな産業になっている紅茶工場からこみとして出てくる出がらしの葉を使って浄化し、六価クロムを資源として回収する方法を考案した。

これまでのところ紅茶の葉1g当たり0.2mgの「活性炭並み」(森教授)の吸着能力を確認した。現在、一番よく吸着する時間や温度、なぜ吸着するのかなどを探っており、紅茶の葉から六価クロムだけ取り出す方法も見つけ出し、リサイクルすることも考えている。

六価クロムは皮膚炎を起こしたり、鼻の中に穴を開けたりするなど毒性が強い物質。アブルさんは「母国を助けるため、実用化を目指して頑張りたい」と話している。

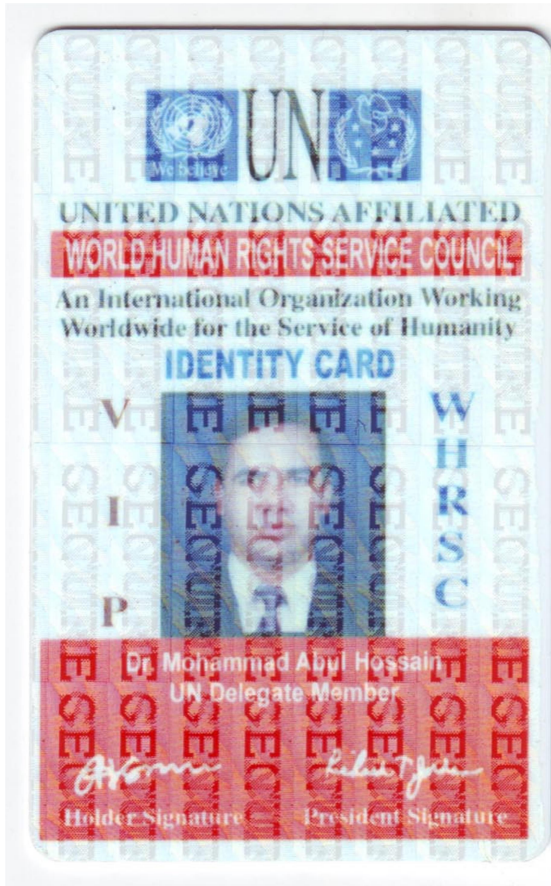
有害な六価クロムを紅茶の葉に吸着する実験を指導する森教授(右) —金大工学部



金大工学部 森教授ら

Published in Japanese National Daily News Paper (Hokkuko Shinbun) on January 06, 2005 (page no. 17) as a hot topics:

*Cleaning of Industrial Wastewater by Used Black Tea Leaves as a Low Cost Process*



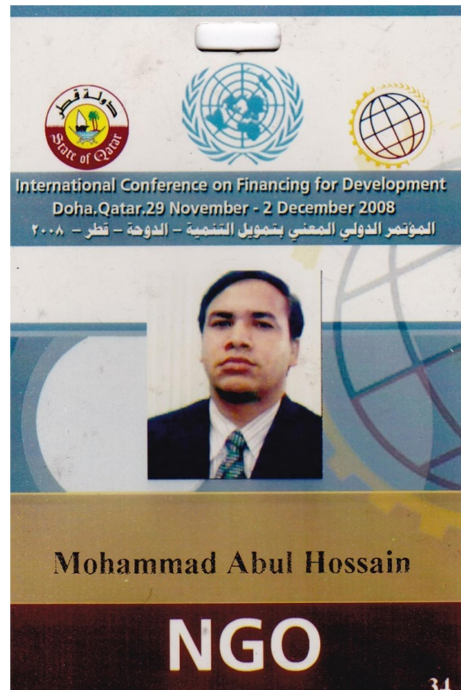
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FOR CHEMISTRY

THE ROYAL SWEDISH ACADEMY OF SCIENCES

STRICTLY CONFIDENTIAL

*Professor M. A. Hossain*

On behalf of the Royal Swedish Academy of Sciences we, as members of the Nobel Committee for Chemistry, have the honour of inviting you to nominate candidates for the award of

The Nobel Prize in Chemistry for 2016

According to the Statutes of the Nobel Foundation, the “*chemical discovery or improvement*” should be indicated for which the award is proposed and reasons given for the suggestion. Work done in the more distant past may be selected for the award only on the supposition that its significance has until recently not been fully appreciated.

A summary of the regulations governing awards is appended, as well as a form which may be used for the proposal of candidate(s). An electronic version of the form may be obtained by contacting [Nobelform2016@kva.se](mailto:Nobelform2016@kva.se). Note that nominations must still be submitted as hard-copy and will only be accepted if sent by regular mail.

The Committee wishes to obtain your personal view on who is/are most deserving to be awarded the Nobel Prize in Chemistry. You are expected to treat your invitation and nomination as highly confidential and not to discuss them with anyone. All nominations must be made by individuals, and not by a group of nominators.

The nominations should be addressed to:  
The Nobel Committee for Chemistry, Box 50005, SE-104 05 Stockholm, Sweden.

The street address (for express mail delivery) is Lilla Frescativägen 4A, SE-114 18 Stockholm (tel. no +46-8-6739500). Please note that fax or e-mail should not be used. Nominations can only be considered if received by the Committee not later than January 31, 2016.

Stockholm, September 2015

SARA SNOGERUP LINSE  
CHAIR

SVEN LIDIN

CLAES GUSTAFSSON

JAN-ERLING BÄCKVALL

OLOF RAMSTRÖM

GUNNAR VON HEIJNE  
SECRETARY