

Curriculum Vitae of Md. Shahinul Islam, Ph.D.

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Carrier Summary:

I have pursued my Ph.D. from the Dept. of Chemistry, Chonbuk National University (CBNU), Jeonju, Republic of Korea. I obtained over **3 years** teaching experiences as a Lecturer at a well-reputed private university in Bangladesh. More than **7 years** research experiences as a postdoctoral researcher in **Republic of Korea**. I published **19 articles** in various international journals with the **impact factor 4.0 to 16.0**. I have received several awards for my research and publications.

Carrier Objective:

Now I am looking for an opportunity to secure the position of a faculty member/researcher at any well reputed university/ research institute in anywhere of the world, where I would like to employ all my research experiences for the benefit of the students as well as to contribute for the well reputation of my working organization.

Research Interests:

- Synthesis of various polymer functionalized nanomaterials and their applications for the wastewater treatment *i.e.* oil-water separation, heavy metal removal, organic dyes removal, drug delivery *etc.*
- Development of polymer coated biochip/biosensors for the diagnosis of various disease biomarker.

Core Educational Qualifications:

- **Ph.D.** (Sept. 2008 – Aug. 2011) in **Bioanalytical Chemistry** (Clinical Biochemistry), Dept. of Chemistry, **Chonbuk National University**, Jeonju, Republic of Korea.

Advisor: Professor Il-Cheol Jeon. **Co-advisor:** Professor Seong Ho Kang.

Thesis: “Synthesis of Polyelectrolytes Functionalized Nanomaterials as a Catalyst and for the High Sensitive Detection of C-reactive protein (CRP) Biomarker.”

• **M.Sc.** (Aug. 2002-July 2004) in Biochemistry & Molecular Biology, **University of Rajshahi**, Bangladesh. Results: 1st class.

• **Bachelor** (July. 1998-June 2002) in Biochemistry & Molecular Biology, **University of Rajshahi**, Bangladesh. Results: 2nd class.

Professional Experiences (Researches and Teaching):

- Jan 2020 – Present **Assistant Professor**, Dept. of Biochemistry, Primeasia University, Dhaka, Bangladesh.
Job Responsibility Teaching various courses like Introduction to Biochemistry, Plant Biochemistry, Industrial Biotechnology, and Biochemical Techniques Lab etc.

- Aug.2016 – April 2019 **Postdoctoral Researcher**, Center for Hybrid Interfacial Chemical Structure, Dept. of Chemistry and Nanosciences, **Ewha Womans University**, Seoul, Republic of Korea.
Job Responsibility I have carried out researches on the synthesis of heterogeneous electrocatalyst for the water oxidation using 2D-monolayerd metal hydroxide/oxide. Moreover, I have guided to undergraduate and postgraduate students to design their research plans and its executions.
Advisor **Professor Seong-Ju Hwang** Ph.D,

- Sept. 2011 – July 2016 **Postdoctoral Researcher**, Korea Basic Science Institute.
Job Responsibility Conducted research on the synthesis of polymer-functionalized nanomaterials and their applications for catalytic reactions, drug delivery and wastewater treatment.

Advisor **Ha Jin Lee**, Ph.D, Principle Scientist and Director Korea Basic Science Institute Seoul center.

• Aug. 2008 – July 2011 **Ph.D. Student and research fellow**, Dept. of Chemistry, **Chonbuk National University (CBNU)**, Republic of Korea.

Job Responsibility Participate in theoretical classes, exams and conduct laboratory researches on the synthesis of functional naomaterials as well as fabrication of polymer coated biochip.

Advisor **Professor Il Cheol Jeon and Professor Seong Ho Kang**

• Oct. 2005 – Jul. 2008 **Lecturer** in Chemistry, Department of Arts and Sciences, **Ahsanullah University of Science and Technology (AUST)**, Dhaka, Bangladesh.

Job Responsibility Taught Inorganic and physical chemistry to under graduate students, responsible for assignments, exams and evaluation.

Technical and Analytical Skills:

Operation and data processing of, Nanoarray, Total internal reflection fluorescence microscope, XRD, FE-SEM, TEM, XPS, zeta potential, contact angle measurement, BET-surface area analyzer, FT-IR, UV-vis spectroscopy, rotary ring disk electrode *etc.*

Awards:

- “The Best Paper Publication Award of 2016”, KBSI
- “The Best Paper Publication Award of 2015”, KBSI
- “The Best Poster Presentation Award, 113th KCS meeting 2014” (Dongwoo

Fine chem Poster Award)

- “The Best Postdoctoral Researcher Award of 2013”, KBSI
- “The Best Paper Publication Award of 2012”, KBSI

Membership of the Professional Organizations:

- Korean Biochip Society
- Korean Chemical Society

List of the Publications (SCI):

1. **Md. Shahinul Islam** and Seong Ho Kang.

"Biosensors on Array Chip by Dual-color Total Internal Reflection Fluorescence Microscopy." **BioChip J.** 2009, 3, 97–104 (IF =1.4) Review article.

2. **Md. Shahinul Islam**, Hee Gu Lee, Jaebum Choo, Joon Myong Song and Seong Ho Kang.

"High Sensitive Detection of C-reactive protein by Total Internal Reflection Fluorescence Microscopy on Rapidly Making Nanoarray Protein Chip." **Talanta** 2010, 81, 1402–1408 (IF= 4.93).

3. **Md. Shahinul Islam**, Hyunung Yu, Hee Gu Lee and Seong Ho Kang.

"Molecular Switching Fluorescence Based High Sensitive Detection of Label-free C-reactive protein on Biochip." **Biosens. Bioelectron.** 2010, 26, 1028–1035 (IF= 9.518).

4. **Md. Shahinul Islam** and Seong Ho Kang.

"Chemiluminescence Detection of Label-free C-reactive Protein Based on Catalytic Activity of Gold nanoparticles." **Talanta** 2011, 83, 752–758 (IF= 4.93).

5. **Md. Shahinul Islam**, Won San Choi, Ha-Jin Lee, Young Boo Lee and Il Cheol Jeon.

"Free-Standing Polymer Nanoactuators, Nanoshutters, and Nanofilters." **J. Mater. Chem.** 2012, 22, 8215–8220 (IF= 6.65) **Back cover article.**

6. Md. Arifur Rahim⁺, **Md. Shahinul Islam**⁺, Tae Sung Bae, Won San Choi, Yong Young Noh and Ha-Jin Lee.

"Metal Ion-Enriched Polyelectrolyte Complexes and Their Utilization for Multilayer Assembly and Catalytic Nanocomposite Films." **Langmuir** **2012**, 28, 8486–8495 (IF= 3.55) (*Jointly-first author).

7. Md. Shahinul Islam, Won San Choi, Young Boo Lee and Ha-Jin Lee.

"Self-assembly of Individual Polymer Chain-metal Nanoparticles for Polymer Cargo Nanocomposites with Tunable Properties." **J. Mater. Chem. A** **2013**, 1, 3565–3574 (IF = 11.3) [Front cover article](#).

8. Md. Shahinul Islam, Won San Choi, Tae Sung Bae, Young Boo Lee and Ha-Jin Lee.

"Neuron-like Polyelectrolyte–Carbon Nanotube Composites for Ultra-High Loading of Metal Nanoparticles." **New J. Chem.** **2014**, 38, 4799–4806 (IF = 3.288).

9. Md. Shahinul Islam, Won San Choi and Ha-Jin Lee.

"Controlled Etching of Internal and External Structures of SiO₂ Nanoparticles Using Hydrogen Bond of Polyelectrolytes." **ACS Appl. Mater. Interfaces** **2014**, 6, 9563–9571 (IF = 8.33).

10. Md. Shahinul Islam, Ha Neul Choi, Won San Choi and Ha-Jin Lee.

"Polyelectrolyte-Mediated Hierarchical Mesoporous Calcium Silicates: a Platform for Drug Delivery Carrier with Ultrahigh Loading Capacity and Controlled Release Behavior." **J. Mater. Chem. B** **2015**, 3, 1001–1009 (IF = 5.344) [Back cover article](#).

11. Md. Shahinul Islam, Won San Choi, Sun Ha Kim, Oc Hee Han and Ha-Jin Lee.

"Inorganic Micelles (Hydrophilic Core@Amphiprotic Shell) for Multiple Applications" **Adv. Funct. Mater.** **2015**, 25, 6061–6070. (IF = 16.836) [Back cover article](#).

12. Md. Shahinul Islam, Won San Choi, Bora Nam, Cheolho Yoon and Ha-Jin Lee.

"Needle-like Iron Oxide@CaCO₃ Adsorbents for Ultrafast Removal of Anionic and Cationic Heavy Metal Ions." **Chem. Eng. J.** **2017**, 307, 208–219. (IF = 10.652).

13. Mahfuza Mubarak, Hyokyung Jeon, **Md. Shahinul Islam**, Cheolho Yoon, Jong-Seong Bae, Seong-Ju Hwang, Won San Choi, Ha-Jin Lee.

"One-pot Synthesis of Layered Double Hydroxide Hollow Nanospheres with Ultrafast Removal Efficiency for Heavy Metal Ions and Organic Contaminants." **Chemosphere** **2018**, 3, 676–686. (IF = 5.778).

14. Sung-Chul Kim, **Md. Shahinul Islam**, Seong-Ju Hwang.

"Application of Exfoliated Inorganic Nanosheets for Strongly-coupled Hybrid Photocatalysts." **Sol. RRL** **2018**, 2, 1800092. (IF pending).

15. **Md. Shahinul Islam**, Minho Kim, Xiaoyan Jin, Seung Mi Oh, Nam-Suk Lee, Hyungjun Kim and Seong-Ju Hwang.

"Bifunctional 2D Superlattice Electrocatalysts of Layered Double Hydroxide–Transition Metal Dichalcogenide Active for Overall Water Splitting." **ACS Energy Lett.** **2018**, 3, 952–960. (IF = 19.003).

16. Mahfuza Mubarak, Hyokyung Jeon, **Md. Shahinul Islam**, Jong-Seong Bae, kyungho Park and Ha-Jin Lee.

"Synthesis of magnetic bimetallic hydroxide nanosheets for the clean-up of oily wastewater." **Adv. Mater. Interfaces** **2019**, 6, 1900773. (IF=4 .37). **Front cover article.**

17. H. B. M. Sidek, X. Jin, **M. S. Islam**, S.-J. Hwang. 1D
composite nanorods of cobalt phosphide-cobalt sulfide with improved electrocatalyst performance. **ChemCatChem** **2019**, 11, 6099-6104 (IF=4.424).

18. X. Jin, T.-H. Gu, K.-G. Lee, M. J. Kim, **M. S. Islam**, S.-J. Hwang.

"Unique advantages of 2D inorganic nanosheets in exploring high-performance catalysts" **Coord. Chem. Rev.** **2020**. 415, 213280 (IF=15.367).

19. **Md. Shahinul Islam**, Xiaoyan Jin, and Seong-Ju Hwang.

"Highly Efficient and Stable Bifunctional Electrocatalysts of 2D Nanostructured Transition Metal Oxide-Silicon Nanocomposites Applicable for Overall Water Splitting." *Submitted.* **2020.**

20. Mahfuza Mubarak, Hyokyung Jeon, **Md. Shahinul Islam**, Ha-Jin Lee.

“Three dimensional flowerlike layered-double oxide for the superfast removal of organic dyes from aqueous solution.” Submitted 2020.

Patent (Korean):

황성주, Md. Shahinul Islam, “층상 나노하이브리드, 이의 제조 방법, 및 이를 포함하는

전기 촉매”, 출원번호 10-2017-0147367 (2017/11/07). [Hwang Seong-Ju, Md. Shahinul

Islam. Layered nanohybrid, a method for producing the electrocatalyst, Patent No. 10-2017-0147367 (2017/11/07).

Selected Presentations in International Conferences:

1. 10th Eco–Energy and Material Science and Engineering Symposium, Dec. 5-8, Ubon Ratchathani, Thailand. **Md. Shahinul Islam**, Won San Choi and Ha-Jin Lee. *“Nonstoichiometric Polymer Particles as Nanoactuators and Catalytic Nanofilters with Unique Properties”*

2. 6th International conference on Materials, Mechanics and Manufacturing, Dec.12-14, 2013, at New Delhi, India. **Md. Shahinul Islam**, Won San Choi and Ha-Jin Lee. *“Nonstoichiometric Polyelectrolyte Complexes: Smart Nanoreactors for Alloy and Multimetallic Catalyst”*

Personal Details:

Date of Birth: 7th, June 1979

Gender: Male

Father name: Md. Jamal Uddin

Mother name: Mst. Nasima Begum

Nationality: The People Republic of Bangladesh

Marital status: Married

Permanent Address: Vill.Kalabi Para, P.O. Nandongachi, Thana. Charghat, Rajshahi

Lists of the Referees:

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Declaration:

I do there by declaring that the above information is true and correct.



05.07.2020

(Md. Shahinul Islam)