# Resume of Abdul Kaium

## Contract:

Postdoctoral Research Fellow, Department of Chemistry, Umeå University,
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and
Associate Professor, Department of Agricultural Chemistry, Sher-e-Bangla Agricultural University,
Dhaka-1207, Bangladesh.
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## Summary:

I am currently a postdoctoral research fellow in the Department of Chemistry at Umeå University, Sweden. Simultaneously, I am an associate professor (currently on leave) in the Department of Agricultural Chemistry at Sher-e-Bangla Agricultural University in Bangladesh. I hold an MSc and Ph.D. in pesticide residue and environmental toxicology from the Chinese Academy of Agricultural Sciences in Beijing, China, and a BSc in agriculture from Sher-e-Bangla Agricultural University in Dhaka, Bangladesh. My research specialization includes the analysis of micropollutants (pesticides, pharmaceuticals, PFAS, metals) and the assessment of their risks in ecology, the environment, and food systems.

## Skills & Activities:

Instrumental Analysis (LC-MS/MS, GC-MS/MS, AAS, UV-Vis); Sample Preparation (SPE, QuEChERS, LLE); Method Development; Method Validation; Environmental Fate Studies; Environmental Toxicology; Food Safety; & Risk Assessment.

## Education:

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| *September 2018 –June 2022* | **Ph.D. in Pesticide Science**<br>**(Major in Pesticide residue and Environmental Toxicology)**,<br>**Chinese Academy of Agricultural Sciences, Beijing, China**.<br><br>**Thesis Title**: Residue Behavior of Imidacloprid in Potato and Peanut Cultivation System and Its Dietary Risk Assessment. |

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| *Sep 2015 – Jan 2018* | **Master of Science in Pesticide Science**<br>**(Major in Pesticide residue and Environmental Toxicology)**,<br>**Chinese Academy of Agricultural Sciences, Beijing, China**.<br><br>**Thesis Title:** Determination of Quinoid Niclosamide (LDS) in Water, Soil, and Rice Samples by QuEChERS Extraction with UPLC-MS/MS. |
| *Jun 2012 – Jun 2015* | **Master of Science in Agricultural Botany**,<br>Sher-e-Bangla Agricultural University, Dhaka, Bangladesh |
| *Jan 2007 – Dec 2010* | **Bachelor of Science in Agriculture**,<br>Sher-e-Bangla Agricultural University, Dhaka, Bangladesh |

## Job & Research Experience:

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| *October 2023- present* | **Postdoctoral research fellow,**<br>Department of Chemistry, Umeå University, Umeå, Sweden | **Duties and Responsibilities:**<br>Screening micropollutants (pesticides, pharmaceuticals, PFAS) from water and biological samples from South Africa and Bangladesh to evaluate their bioaccumulation and ecological risk studies. |
| *May 2022 – present (On leave)* | **Associate Professor,**<br>Department of Agricultural Chemistry<br>Sher-e-Bangla Agricultural University,<br>Dhaka, Bangladesh | **Duties and Responsibilities:**<br>Involved in academic and research supervision of Masters students. I am also actively involved in various national and international research projects that are focused on environmental pollution and food safety. I have made significant contributions to various national policies and crisis management initiatives. |
| *May 2015 – May 2022* | **Assistant Professor**<br>Sher-e-Bangla Agricultural University,<br>Department of Agricultural Chemistry<br>Dhaka, Bangladesh | **Duties and Responsibilities:**<br>Involved in academic and research supervision of Masters students. I am also actively involved in various national and international research projects that are focused on environmental pollution and food safety. I have made significant contributions to various national policies and crisis management initiatives. |
| *May 2013 – May 2015* | **Lecturer**<br>Sher-e-Bangla Agricultural University,<br>Agricultural Chemistry<br>Dhaka, Bangladesh | **Duties and Responsibilities:**<br>Involved in academic and research supervision of Masters students. |

## Projects:

| Role | Title of Projects | Sponsor /Funder |
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| Member | Enhancing food safety TVET and higher education in Bangladesh | Ministry of Foreign Affairs of the Netherlands |
| Researcher | Do pollutants pose a risk for water reuse? | Umeå University: Umeå, SE |
| Researcher | Screening of micropollutants in the river and marine water system of Bangladesh | Umeå University: Umeå, SE<br>&<br>The Kempe Foundation |

## Fellowship & Scholarship:

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| *Sep 2018 – July 2022* | **Bangabandhu Science & Technology Fellowship**<br>Supported by the Ministry of Science & Technology of the people's republic of Bangladesh.<br>Host: Institute of Plant Protection – Chinese Academy of Agricultural Sciences; Beijing, China |
| *Sep 2015–May 2018* | **Chinese Government Scholarship (Master degree scholarship)** supported by China scholarship council.<br>Host: Institute of Plant Protection – Chinese Academy of Agricultural Sciences; Beijing, China |

## Training, course, seminar & workshop:

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| *Seminar* | Guangzhou, China<br>2015/10 | International seminar on food safety and pesticide risk assessment |
| *Workshop* | Beijing, China<br>2016/03 | Terrestrial field dissipation of pesticide study in China |
| *Workshop* | Beijing, China<br>2017/10 | Experimental design and statistical analysis in agricultural research |
| *Training* | Dhaka, Bangladesh<br>2013/12 | Curriculum development and teaching-learning Assessment |
| *Course* | WCDI, WUR, The Netherlands<br>01/02/2021 | Food Hazards |
| *Course* | WCDI, WUR, The Netherlands<br>01/02/2021 | Food sampling and Monitoring |
| *Course* | WCDI, WUR, The Netherlands<br>01/02/2021 | Application of HACCP |
| *Course* | WCDI, WUR, The Netherlands<br>01/02/2021 | Blended Learning |
| *Course* | Precon, The Netherlands<br>32/12/2020 | Distance Learning on Principles of Food Hygiene |

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| *Course* | Precon, The Netherlands<br>32/12/2020 | Auditing Skills |
| *Training* | Precon, The Netherlands<br>July- December/2020 | Labour market Needs Assessment (LMNA) for Food Processing Industries in Bangladesh |
| *Course* | FAO/WHO; 2021 | Food Safety |
| *Workshop* | SAU, Dhaka, Bangladesh<br>26/06/2021 | Intellectual Property Rights |
| *Training Workshop* | IPP-CASS, Beijing, China<br>14/07/2021 to 28/07/2021 | International Training Workshop on Advanced Methods in Green Control of Major Plant Pests |
| *Training* | WFSR, WUR, The Netherlands<br>September 2022 | Instrumental Residue Analysis of Tetracyclines in Animal Products |
| *Training Course* | Wageningen University & Research, June 2023 | Validation of Chemical Methods for Residue Analysis |

## Academic Contributions:

| Role | Journal Name | Quantity | Publisher |
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| Reviewer | Antibiotics | 4 | MDPI |
| Reviewer | International journal of environmental analytical chemistry | 4 | Taylor & Francis |
| Reviewer | Journal of plant interactions | 2 | Taylor & Francis |
| Reviewer | International journal of environmental research and public health | 1 | MDPI |
| Reviewer | Journal of environmental science and health | 1 | Taylor & Francis |
| Reviewer | Sustainability | 1 | MDPI |

## Journal Publications:

**Kaium, A**., Wu, C., Man, Y., Liu, X., Dong, F., & Zheng, Y. (2024). Evaluating the Safety of Imidacloprid FS Seed Treatment Use in Potato Production : A Case Study from China. *Molecules*, *29*(14), 3362. https://doi.org/10.3390/molecules29143362

**Kaium**, A., Nocanda, X., Robinson, R., & Fick, J. (2024). Challenges in Water Reuse: Pharmaceutical Removal Efficiency in Durban's Wastewater Treatment Plants. *SETAC North America Annual Meeting SETAC North America 45th Annual Meeting*. https://setac.confex.com/setac/sna2024/meetingapp.cgi/Paper/26559

**Kaium**, A., Cao, J., Liu, X., Dong, F., Xu, J., Wu, X., & Zheng, Y. (2018). Validation of QuEChERS-based UPLC-MS/MS method for determination of quinoid niclosamide (LDS) residue in water, soil and rice samples. *International Journal of Environmental Analytical Chemistry*, *98*(7), 644–654. https://doi.org/10.1080/03067319.2018.1487062

**Kaium**, Cao, Liu, Xu, Dong, Wu, & Zheng. (2019). Method Validation and Dissipation Behaviour of Dimethyl Disulphide (DMDS) in Cucumber and Soil by Gas Chromatography-Tandem Mass Spectrometry. *International Journal of Environmental Research and Public Health*, *16*(22), 4493. https://doi.org/10.3390/ijerph16224493

Samma S, Khan MdSI, Chowdhury MdTI, Islam MA, Fick J, **Kaium A***. Evaluating Soil-Vegetable Contamination with Heavy Metals in Bogura, Bangladesh: A Risk Assessment Approach. Environmental Health Insights. 2024;18. doi:10.1177/11786302241282601

Kabir, S., **Kaium***, A., Chowdhury, M. T. I., Islam, M. A., Bhuiya, S. A., Ahmed, M. W., Kadir, M. N., Moniruzzaman, M., & Khan, M. S. I. (2022). Environmental pollution, ecological and human health risk assessment of heavy metals in rice farming system near the Buriganga River in Dhaka, Bangladesh. *International Journal of Environmental Analytical Chemistry*, *00*(00), 1–20. https://doi.org/10.1080/03067319.2022.2064752

Cao, J., Zheng, Y., **Kaium**, A., Liu, X., Xu, J., Dong, F., Wu, X., & Zheng, Y. (2019). A comparative study of biochar, multiwalled carbon nanotubes and graphitized carbon black as QuEChERS absorbents for the rapid determination of six triazole fungicides by UPLC-MS/MS. *International Journal of Environmental Analytical Chemistry*, *99*(3), 209–223. https://doi.org/10.1080/03067319.2019.1586892

Wang, W., Huang, W., Mao, J., Zhang, X., Wang, H., **Kaium**, A., & Zhang, Y. (2023). Dissipation and dietary risk assessment of cyflumetofen, bifenazate and their metabolites in citrus in China. *Cogent Food & Agriculture*, *9*(1), 0–14. https://doi.org/10.1080/23311932.2022.2157091

Zhang, Y., Zhou, Y., Duan, T., **Kaium**, A., & Li, X. (2022). Dissipation and dietary risk assessment of carbendazim and epoxiconazole in citrus fruits in China. *Journal of the Science of Food and Agriculture*, *102*(4), 1415–1421. https://doi.org/10.1002/jsfa.11474

Habib, M., **Kaium**, A., Khan, M. S. I., Prodhan, M. D. H., Begum, N., Chowdhury, M. T. I., & Islam, M. A. (2021). Residue level and health risk assessment of organophosphorus pesticides in eggplant and cauliflower collected from dhaka city, bangladesh. *Food Research*, *5*(3), 369–377. https://doi.org/10.26656/fr.2017.5(3).624

Rahman, A., **Kaium**, A., Khan, M. S. I., Islam, M. A., Begum, N., Prodhan, M. D. H., Hossain, A., Mustafiz, S. S. B., & Chowdhury, M. T. I. (2021). Residue level and health risk assessment of organophosphorus pesticides in country bean and bitter gourd collected from Cumilla, Bangladesh. *Food Research*, *5*(6), 238–246. https://doi.org/10.26656/fr.2017.5(6).041

Hossain, A., Ahmed, M. W., Rabin, M. H., **Kaium**, A., Razzaque, A., & Zamil, S. S. (2023). Heavy metal quantification in chicken meat and egg: An emerging food safety concern. *Journal of Food Composition and Analysis*, 105876. https://doi.org/10.1016/j.jfca.2023.105876

Laboni, F. A., Ahmed, M. W., **Kaium**, A., Alam, M. K., Parven, A., Jubayer, M. F., Rahman, M. A., Meftaul, I. M., & Khan, M. S. I. (2022). Heavy Metals in Widely Consumed Vegetables Grown in Industrial Areas of Bangladesh: a Potential Human Health Hazard. *Biological Trace Element Research*, *0123456789*. https://doi.org/10.1007/s12011-022-03179-6

Islam, M. A., Ullah, A., Habib, M., Chowdhury, T. I., Khan, S. I., **Kaium**, A., Prodhan, M., Chowdhury, T. I., Khan, S. I., Kaium, A., & Prodhan, M. (2019). Determination of major organophosphate insecticide residues in cabbage samples from different markets of Dhaka. *Asia Pacific Environmental and Occupational Health Journal*, *5*(2), 30–35.