

MD KHAIRUL ISLAM

Engineer

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AREAS OF SPECIALIZATION

Materials, Metallurgy, Heat treatment

CURRENT POSITIONS

2015/July - present Engineer, Institute of Mining, Mineralogy and Metallurgy, BCSIR, Joypurhat, Bangladesh

PREVIOUS POSITIONS

2014/July - 2015/June Research Assistant, Department of Materials and Metallurgical Engineering, BUET, Dhaka-1000, Bangladesh

EDUCATION

2017 MSc in Materials and Metallurgical Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh
Thesis: *Characterization of Zinc Based High Temperature Solder Alloys with Chromium and Molybdenum Additions*

2014 BSc in Materials and Metallurgical Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh

DEVELOPED PROCESS/PATENTS

Process

2017 **Islam, M.K.**, Khan, M.A.R., Ahmed, T., Ahmed, A.N., Gafur, M.A., “A process for the production of Lead (Pb) free tin (Sn) based solder for electronic applications” Bangladesh Council of Scientific and Industrial Research (2017) Ref No: 39.02.0000.043.37.020.17/815 Date: 01/08/2017

2018 Gafur, M.A., Qadir, M.R., Ahmed, A.N., Dhar, S.A., **Islam, M.K.**, “Design and fabrication of a single roller magnetic separator” Bangladesh Council of Scientific and Industrial Research (2018) Ref No: 39.02.0000.043.37.110.17/1283 Date: 17/01/2018

BOOKS, CHAPTERS/EDITORSHIPS AND POPULAR ARTICLES

Book Chapters

- 2019 **Khairul Islam**, Ahmed Sharif “Characterization of Zn–Mo and Zn–Cr Pb-Free Composite Solders as a Potential Replacement for Pb-Containing Solders” Harsh Environment Electronics, PP: 147-166, Wiley, Germany.
<https://doi.org/10.1002/9783527813964.ch7>
- 2019 **Khairul Islam**, Ahmed Sharif “Role of Alloying Addition in Zn-Based Pb-Free Solders” Harsh Environment Electronics, PP: 67-90 Wiley, Germany.
<https://doi.org/10.1002/9783527813964.ch3>

PUBLICATIONS

Journal Article

- 2019 **Islam, M. K.**; Sharif,A; Imran, M.S; Hussain, M., (2019) Synergist effect of recycled cotton fabric and wood sawdust reinforced biodegradable polypropylene composites, Bangladesh J. Sci. Ind. Res.54(1), 21-30
<https://doi.org/10.3329/bjsir.v54i1.40727>
- 2015 **Islam, M.K.** and Sharif, A. (2015), Nano characterization of interface between natural fiber and polymer matrix: an overview, Composite Interfaces, 23: 105-123
<https://doi.org/10.1080/09276440.2016.1103082>
- 2015 **Islam, M.K.**, Hossain, M.F., and Islam, M.A. (2015), Modification of mechanical, physical and thermal properties of wood saw dust particles reinforced polyester composites by alkali treatment, Malaysian Polymer Journal, 10:62-69
- 2015 Uddin, A. K. M. S., **Islam, M.K.**, Ferdousi, H. M., and Sharif, A., (2015), A Comprehensive Review of Recent Trend in Nano-Dental Materials Research, International Journal of Innovation and Scientific Research, 13: 659-665

Conference Proceedings

- 2014 Hossain, M. F., **Islam, M.K.**, Islam, M.A. (2014), Effect of chemical treatment on the mechanical and physical properties of Wood saw dust reinforced polymer matrix composites, Procedia Engineering, 90: 39-45
<https://doi.org/10.1016/j.proeng.2014.11.811>
- 2016 **Islam, M.K.**, Khan, M.A.R., Ahmed, T., Ahmed,A.N., Gafur, M.A., “Fabrication and characterization of Zn-xSb alloys as candidate to replace Pb based solder alloys” 1st ICEMME, 22- 24 December, 2016, BCSIR, Dhaka, Bangladesh.

LIST OF R&D PROJECTS

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|---------|---|
| 2016-17 | Development and characterization of lead-free environment friendly solder for electronic applications |
| 2016-18 | Recovery of Aluminum and Zinc from E-waste (computer hard disk and dry cell batteries) |

FELLOWSHIPS AND AWARDS

Awarded “Endeavour Executive Fellowship-2018” from the Department of Education and Training, Australian Government.

TRAINING/ WORKPLACE INFORMATION

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| 2018/Feb. – 2018/June | Professional Development Training, Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia. |
| 2016/April-2016/June | Foundation Training, BPATC, Savar, Dhaka |