

## Mr. Umair Aftab

### PEER REVIEW PUBLICATION:

1. **Umair Aftab**, Aneela Tahira, Abdul Hanan Samo, Muhammad Ishaq Abro, Muhammad Moazam Baloch, Mukesh Kumar, Sirajuddin, Zafar Hussain Ibupoto “**Mixed CoS<sub>2</sub>@Co<sub>3</sub>O<sub>4</sub> composite material: An efficient nonprecious electrocatalyst for hydrogen evolution reaction**”, International Journal of Hydrogen Energy, Vol 45, Issue 27, pp. 13805-13813, 2020, DOI: 10.1016/j.ijhydene.2020.03.131 (*IF: 4.939*)
2. **Umair Aftab**, Aneela Tahira, Raffaello Mazzaro, Vittorio Morandi, Muhammad Ishaq Abro, Muhammad Moazam Baloch, Cong Yu, Zafar Hussain Ibupoto “**Nickel–cobalt bimetallic sulfide NiCo<sub>2</sub>S<sub>4</sub> nanostructures for a robust hydrogen evolution reaction in acidic media**”, RSC Advances, Vol 10, Issue 37, pp. 22196-22203, 2020, DOI: 10.1039/D0RA03191G (*IF:3.049*)
3. Adeel Liaquat Bhatti, **Umair Aftab**, Aneela Tahira, Muhammad Ishaq Abro, Muhammad Hassan Aghem, Muhamad Ali Bhatti, Zafar Hussain Ibupoto “**Facile doping of nickel into Co<sub>3</sub>O<sub>4</sub> nanostructures to make them efficient for catalyzing the oxygen evolution reaction**”, RSC Advances, Vol 10, Issue 22, pp. 12962-12969, 2020, DOI: 10.1039/D0RA00441C (*IF:3.049*)
4. Abdul Qayoom Mugheri, Aneela Tahira, **Umair Aftab**, Adeel Liaquat Bhatti, Nusrat Naeem Memon, Muhammad Ishaque Abro, Aqeel Ahmed Shah, Magnus Willander, Ahmed Ali Hullio and Zafar Hussain Ibupoto “**Efficient tri-metallic oxides NiCo<sub>2</sub>O<sub>4</sub>/CuO for the oxygen evolution reaction**”, RSC Advances, Vol 9, Issue 72, pp. 42387-42394, 2019, DOI: 10.1039/C9RA09351F (*IF:3.049*)
5. **Umair Aftab**, Aneela Tahira, Raffaello Mazzaro, Muhammad Ishaq Abro, Muhammad Moazam Baloch, Magnus Willander, Omer Nur, Cong Yu and Zafar Hussain Ibupoto “**The chemically reduced CuO–Co<sub>3</sub>O<sub>4</sub> composite as a highly efficient electrocatalyst for oxygen evolution reaction in alkaline media**”, Catalysis Science & Technology, Vol 9, Issue 22, pp. 6274-6284, 2019, <https://doi.org/10.1039/C9CY01754B> (*IF:5.726*).
6. Abdul Qayoom Mugheri, Aneela Tahira, **Umair Aftab**, Muhammad Ishaq Abro, Arfana Begum Mallah, Gulam Zuhra Memon, Humaira Khan, Mazhar Ali Abbasi, Imran Ali Halepoto, Saleem Raza Chaudhry and Zafar Hussain Ibupoto “**An advanced and efficient Co<sub>3</sub>O<sub>4</sub>/C nanocomposite for the oxygen evolution reaction in alkaline media**”, RSC Advances, Vol 9, Issue 59, pp. 34136-34143, Oct 2019, DOI: 10.1039/C9RA07224A (*IF:3.049*)
7. Shoukat Ali Noonari, **Umair Aftab**, Imtiaz Ali Soomro, Bilal Ahmed Soomro and Akber Ali Pirzada “**Study of Antibacterial Effect of Cerium Oxide Nanoparticles on Escherichia Coli Microorganism**”, Mehran University Research Journal of Engineering and Technology, Vol 38, Issue 3, pp. 461-466, July 2019
8. Abdul Sattar Chang, Nusrat Naeem Memon, Sidra Amin, Fouzia Chang, **Umair Aftab**, Muhammad Ishaq Abro, Ali dad Chandio, Aqeel Ahmed Shah, Mazhar Hussain Ibupoto, Muhammad Akram Ansari and Zafar Hussain Ibupoto “**Facile Non-enzymatic Lactic Acid Sensor Based on Cobalt Oxide Nanostructures**”, Electroanalysis, , 2019, DOI: <https://doi.org/10.1002/elan.201800865> (*IF:2.691*)
9. Aneela Tahira, Zafar Hussain Ibupoto, Mikhail Vagin, **Umair Aftab**, Muhammad Ishaq Abro, Magnus Willander, Omer Nur “**An efficient bifunctional electrocatalyst based on a nickel iron layered double hydroxide functionalized Co<sub>3</sub>O<sub>4</sub> core shell structure in alkaline media**”, Catalysis Science & Technology, Vol 9, Issue 11, pp. 2879-2887, 2019, DOI: 10.1039/C9CY00351G (*IF:5.726*).
10. Abdul QayoomMugheri, **Umair Aftab**, Muhammad IshaqAbro, Saleem Raza Chaudhry, Luís Amaral and Zafar Hussain Ibupoto “**Co<sub>3</sub>O<sub>4</sub>/NiO bifunctional electrocatalyst for water splitting**”, Electrochimica Acta, Vol 306, pp. 9-17, May 2019, <https://doi.org/10.1016/j.electacta.2019.03.092> (*IF:5.383*)
11. Kishore Chand, M. Ishaque Abro, **Umair Aftab**, Ahmer Hussain Shah, Muhammad Nazim Lakhan, Dianxue Cao, Ghazanfar Mehdi and Abdalla Mohamed Ali Mohamed “**Green synthesis**

**characterization and antimicrobial activity against Staphylococcus aureus of silver nanoparticles using extracts of neem, onion and tomato**", RSC Advances, Vol 9, Issue 30, pp. 17002-17015, May 2019, DOI: 10.1039/C9RA01407A (*IF:3.049*)

12. Abdul Qayoom Mugheri, Aneela Tahira, **Umair Aftab**, Muhammad Ishaq Abro, Saleem Raza Chaudhry, Luis Amarald and Zafar Hussain Ibupoto "**Facile efficient earth abundant NiO/C composite electrocatalyst for the oxygen evolution reaction**", RSC Advances, Vol 9, Issue 10, pp. 5701-5710, January 2019, DOI: 10.1039/C8RA10472G (*IF:3.049*)
13. Shahid Hussain Abro, Ali Dad Chandio and **Umair Aftab** "**Effect of Heating Rate on Microstructural Developments in Cold Heading Quality Steel used for Automotive Applications**", Mehran University Research Journal of Engineering and Technology, Vol 37, Issue 3, pp. 461-466, July 2018
14. **Umair Aftab**, Muhammad Ishaque Abro, Ali Dad Chandio, Wasim Akhtar and Shafique Ahmed "**Effect of Nano-Ceria on Physiognomies of Aluminum-5% Zinc Sacrificial Anode**", Mehran University Research Journal of Engineering and Technology, Vol 37, Issue 2, pp. 351-358, April 2018
15. Inamullah Maitlo, **Umair Aftab**, Muhammad Ishaque Abro and Muhammad Moazam Baloch "**Selective Leaching of Steel Pollutant Element from Dilband Iron Ore, Pakistan**", Mehran University Research Journal of Engineering and Technology, Vol 36, Issue 3, pp. 757-762, July 2017
16. Muhammad Ishaque Abro, Riaz Ahmed Memon, Imtiaz Ali Soomro, and **Umair Aftab** "**Effect of Intercritical Heat Treatment on Mechanical Properties of Reinforcing Steel Bar**", Mehran University Research Journal of Engineering and Technology, Vol 36, Issue 3, pp. 589-596, July 2017
17. Faisal Ahmed Memon, Francesco Morichetti, Muhammad Ishaque Abro, Giosue Iseni, Claudio Somaschini, **Umair Aftab** and Andrea Melloni "**Synthesis, Characterization and Optical Constants of Silicon Oxycarbide**", EPJ Web Conf., Vol 139, Article 2, pp. 1-5, 2017 <https://doi.org/10.1051/epjconf/201713900002>
18. **Umair Aftab**, M. I. Abro, Moazam Baloch and M. H. Jokhio "**Development of Aluminium-Ceria Composite by Using Stir Casting**", ELEMENT, Pakistan Foundry Association, 2<sup>nd</sup> Edition, 2015.

#### **CONFERENCE & SYMPOSIUM PRESENTATIONS:**

1. **Umair Aftab**, Muhammad Ishaque Abro, Muhammad Moazam Baloch and Sirajuddin Khan "**Facile Organic Ligand Assisted Hydrothermal Synthesis of MoS<sub>x</sub>-MoO<sub>x</sub> Nanocomposites for Hydrogen Production**", 1<sup>st</sup> International Conference on Sustainable Mineral Resource Development and Utilization (SMRDU-19), organized by Coal Research and Resource Center, M.U.E.T., Jamshoro, Pakistan at KLC PCSIR Karachi (Feb 12-13, 2019)
2. **Umair Aftab**, Imtiaz Ali Soomro, Aitazaz Ahmed, Arif Ali and Umair Khan "**Effect of Deformation on Martensite Transformation in Ti-6-Al-4V Alloy**", 2<sup>nd</sup> International Conference on Chemical Engineering, organized by Department of Chemical Engineering, MUET Jamshoro at Movenpick Hotel Karachi, Pakistan. (Jan 22-23, 2018)
3. Kishore Chand, M. Ishaque Abro, **Umair Aftab**, Shoukat Ali Noonari and Mukesh Kumar "**Green Synthesis and Characterization of Silver Nanoparticles**", 2<sup>nd</sup> International Conference on Chemical Engineering, organized by Department of Chemical Engineering, MUET Jamshoro at Movenpick Hotel Karachi, Pakistan. (Jan 22-23, 2018)
4. Vinod Kumar, **Umair Aftab**, Junaid Ahmed, Shahwaiz Saeed and Muzafar Ahmed "**Synthesis and Characterization of GO/RGO Polymer Composite**", 1<sup>st</sup> International Conference on Advanced

Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)

5. Qureshi Ayatullah, M. Moazam Baloch and **Umair Aftab** “**Effect of Food and Beverages on Physical and Mechanical Behavior of Dental Restorative Materials**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
6. Santosh Kumar, Mukesh Kumar, **Umair Aftab**, Imtiaz Soomro and Rehan Laghari “**Impact of Wooden Ash Amendments on Physical and Chemical Properties of Desert Soil**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
7. Vinod Kumar, Mukesh Kumar, **Umair Aftab**, Muzafar Ahmed and Abdul Hanan “**Synthesis and Characterization of Graphene Nano-Sheets**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
8. A.J. Laghari, Muhammad Ishaq Abro, **Umair Aftab**, M. M. Baloch and S. A. Channa “**The Effect of Polyvalent Metal Ions on Zeta Potential Study of Hematite, Quartz, Kaolinite, Calcite and Fluorapatite Minerals**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
9. Syed Amjad Ali Shah, Tanweer Hussain and **Umair Aftab** “**Analyzing the effect of changing RAH seal material on the heat rate improvement of 210-MW unit**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
10. Rohit Sharma, Muhammad Ishaque Abro, Peerji Rajput, Mukesh Kumar and **Umair Aftab** “**EEE-waste Recycling Management: A Review**”, 1<sup>st</sup> International Conference on Advanced Materials and Processing (ICAMP-17), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (Feb 28-March 2, 2017)
11. **Umair Aftab**, M. Ishaque Abro, Wasim Akhtar and Shafique Ahmed “**Effect of Nano Ceria on Physiognomies of Aluminum-5% Zinc Sacrificial Anode**”, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)
12. Ayatullah Qureshi, Moazam Baloch and **Umair Aftab** “**Effect of Acidic Agents on Physico – Mechanical Characteristics of Dental Restorative Materials**”, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)
13. Vinod Kumar, Abdul Hanan, Muzafar Ahmed Kolachi, **Umair Aftab** and M. Ishaque Abro “**Production and Characterization of Graphene Oxide**”, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)
14. Inamullah Maitlo, Moazam Baloch, M. Ishaque Abro and **Umair Aftab** “**Selective Leaching of Steel Pollutant Element from Dilband Iron Ore in Pakistan**”, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)

15. Muddassir Ali Memon, Moazam Baloch, Wasim Akhtar, **Umair Aftab** and Ayatullah Qureshi **“Development and Characterization of Super Absorbent Polymer Composite using Nano Clay”**, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)
16. Sarfaraz Ali Shah, Mukesh Kumar, Raja Shahbaz, M. Ishaque Abro and **Umair Aftab** **“Evaluation of Neem Leaves Extract as Corrosion Inhibitor for Mild Steel”**, 2<sup>nd</sup> National Conference on Metallurgy and Materials (NCMM-16), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (August 11, 2016)
17. Imtiaz Ali Soomro, Ayatullah Qureshi, **Umair Aftab** and Shaukat Ali Noonari **“Hydrogen Technology, a potential option for sustainable development of Pakistan”**, 1<sup>st</sup> International Conference on Indigenous Resource Management Challenges and Opportunities 2016, The University of Management Sciences & Information Technology Kotli Azad Kashmir (14-15 April 2016)
18. **Umair Aftab**, M. Ishaque Abro, M. Hayat Jokhio, and M. Moazam Baloch **“Effect of Cerium (IV) oxide on Physico-Chemical Properties of Aluminum Based Sacrificial Anode”**, 1<sup>st</sup> National Conference on Metallurgy and Materials (NCMM-15), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (March 25, 2015)
19. M. Ishaque Abro, M. Hayat Jokhio, **Umair Aftab**, Riaz Ahmed Memon and Inamullah Maitlo **“Effect of Effective Case Depth and Microstructure on Torsional Strength of SAE1040 Steel”**, 1<sup>st</sup> National Conference on Metallurgy and Materials (NCMM-15), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (March 25, 2015)
20. Shafique Ahmed, M. Moazam Baloch, M. Ishaque Abro and **Umair Aftab** **“High Temperature Creep Rate Measurement of Advanced Steel”**, 1<sup>st</sup> National Conference on Metallurgy and Materials (NCMM-15), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (March 25, 2015)
21. Ahsen Khan, M. Ishaque Abro, Muhammad Hassan and **Umair Aftab** **“Selective Flocculation Studies on Hematite-Quartz System in Presence of Polyvalent Metal-Ions”**, 1<sup>st</sup> National Conference on Metallurgy and Materials (NCMM-15), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (March 25, 2015)
22. **Umair Aftab**, M. I. Abro, Moazam Baloch and M. H. Jokhio **“Development of Aluminium-Ceria Composite by Using Stir Casting”**, 5<sup>th</sup> International Foundry Congress & Exhibition (IFCE) organized by Pakistan Foundry Association on Dec 2-3, 2014 at Faletti’s hotel Lahore, Pakistan.
23. **Umair Aftab**, Muhammad Ishaq Abro, Khanji Harijan, M. Moazam Baloch, M. Aqeel Bhutto and Fayaz Hussain **“Effect of Ceria on MIC Susceptibility of Aluminium-Zinc Sacrificial Anode”**, 2<sup>nd</sup> International Conference on Energy, Environmental and Sustainable Development (EESD 2012), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (February 27 – 29, 2012)
24. Inamullah Maitlo, Muhammad Ishaq Abro, M. Moazam Baloch and **Umair Aftab**, **“An Attempt to Minimize Environmental Degradation by Optimizing C.P. Corrosion System”**, 2<sup>nd</sup> International Conference on Energy, Environmental and Sustainable Development (EESD 2012), Mehran University of Engineering and Technology, Jamshoro, Pakistan. (February 27 – 29, 2012)