CURRICULUM VITAE

Name	**Riyadh Ramadhan Ikreedeegh**
Nationality:	Libya
Qualification Kind:	Senior Researcher
Academic degree:	Assistant professor
Affiliated Institution:	Arabian Gulf Oil Company, Libya
Specialization:	Chemical Engineering (Renewable energy & nanomaterials)
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https://scholar.google.com/citations?hl=ar&user=TPV7hAEAAAAJ

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Career Overview

Graduate study	2010-2015 : Bachelor in Chemical Engineering from "CETJ" College of Engineerig Technology- Janzour – Libya- obtained with (84.6 %).
Postgraduate (MSc) From	2019-2021 : Master degree in Chemical Engineering from Universiti Teknologi Malaysia, obtained with a GPA of 3.95 out of 4, (Best Postgraduate Student).
Postgraduate study (PhD	-2024 PhD candidate in Chemical and Petroleum Engineering Department, UAE University, United Arab Emirates.

C. **PROFESSIONAL EXPERIENCE**

* Laboratory technician in Sarir Refinery Lab, Arabian Gulf Oil Company, (2009 – 2013)
* Head of Analysis and Quality Control department, Sarir Refinery, Arabian Gulf Oil Company, (Present).

Duties and Responsibilities:

- Responsible for all Routine Tests of oil and gas products in Sarir Refinery.
- Providing the required quality certificates for all petroleum products (Diesel, Jet-fuel, Gasoline)
- Doing a wide range of water and gas analysis (e.g. Spectrophotometry, Gas Chromatography). - Preparation of all chemical solutions required for analytical tests. - Calibration and Standardization of lab devices and equipment.

* Lecturer and lab instructor in STC Specific Training Center for Oil Industries in Zawia (2018–2019).

Duties and Responsibilities:

- Giving lectures in Analytical Chemistry, Process Chemistry, Lab Technology to students.

- Preparing lab instruments and chemical solutions required for the practical work.
- Supervising and ensuring safe working environment in the lab for students.

Publications المنشورات

First and Corresponding author papers

1. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*A critical review in recent developments of metal-organic-frameworks (MOFs) with band engineering alteration for photocatalytic CO2 reduction to solar fuels.*" **Journal of CO_2 Utilization** 43 (2021): 101381. **https://doi.org/10.1016/j.jcou.2020.101381** **(IF = 7.2)**

2. **Ikreedeegh**, Riyadh Ramadhan, et al. "*A comprehensive review on anodic TiO2 nanotube arrays (TNTAs) and their composite photocatalysts for environmental and energy applications: Fundamentals, recent advances and applications.*" **Coordination Chemistry Reviews** 499 (2024): 215495. **https://doi.org/10.1016/j.ccr.2023.215495** **(IF = 24.83)** * **Corresponding author**

3. **Ikreedeegh**, Riyadh Ramadhan, et al. "*Recent advances on synthesis and photocatalytic applications of MOF-derived carbon materials: A review.*" **Coordination Chemistry Reviews** 510 (2024): 215834.
https://doi.org/10.1016/j.ccr.2024.215834 **(IF = 20.3)** * **Corresponding author**

4. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*Indirect Z-scheme heterojunction of NH2-MIL125 (Ti) MOF/g-C3N4 nanocomposite with RGO solid electron mediator for efficient photocatalytic CO2 reduction to CO and CH4.*" **Journal of Environmental Chemical Engineering** 9.4 (2021): 105600. **https://doi.org/10.1016/j.jece.2021.105600** **(IF = 7.4)**

5. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*Facile fabrication of well-designed 2D/2D porous g-C3N4–GO nanocomposite for photocatalytic methane reforming (DRM) with CO2 towards enhanced syngas production under visible light.*" **Fuel** 305 (2021): 121558. **https://doi.org/10.1016/j.fuel.2021.121558** **(IF = 6.7)**

6. **Ikreedeegh**, Riyadh Ramadhan, Sehar Tasleem, and Md Arif Hossen. "*Facile fabrication of binary gC3N4/NH2-MIL-125 (Ti) MOF nanocomposite with Z-scheme heterojunction for efficient photocatalytic H2 production and CO2 reduction under visible light.*" **Fuel** 360 (2024): 130561. **https://doi.org/10.1016/j.fuel.2023.130561** **(IF = 6.7)** * **Corresponding author**

7. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*Ternary nanocomposite of NH2-MIL-125 (Ti) MOF-modified TiO2 nanotube arrays (TNTs) with GO electron mediator for enhanced photocatalytic conversion of CO2 to solar fuels under visible light.*" **Journal of Alloys and Compounds** 969 (2023): 172465. **https://doi.org/10.1016/j.jallcom.2023.172465** **(IF = 5.8)**

8. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*Photocatalytic CO 2 reduction to CO and CH 4 using gC 3 N 4/RGO on titania nanotube arrays (TNTAs).*" **Journal of Materials Science** 56 (2021): 18989-19014. **https://doi.org/10.1007/s10853-021-06516-7** **(IF = 4.0)**

9. **Ikreedeegh**, Riyadh Ramadhan. "*Recent developments of Fe-based metal organic frameworks and their composites in photocatalytic applications: Fundamentals; Synthesis and Challenges.*" **Russian Chemical Reviews** 91 (2022): 12.
https://doi.org/10.57634/RCR5064 **(IF = 7.46)** * **Corresponding author**

10. **Ikreedeegh**, Riyadh Ramadhan, and Muhammad Tahir. "*A Techno-Economical Evaluation Study for Upgrading Sarir Oil Refinery and Maximizing Gasoline Production.*" **Journal of Chemical and Petroleum Engineering** 58.1 (2024): 31-47.
https://doi.org/10.22059/jchpe.2023.360196.1438 * **Corresponding author**

11. **Ikreedeegh**, Riyadh Ramadhan, Muhammad Tahir, and Mohamed Madi. "*Modified-TiO2 nanotube arrays as a proficient photo-catalyst nanomaterial for energy and environmental applications.*" **Journal of Solar Energy and Sustainable Development** 13.1 (2024): 133-144.
https://doi.org/10.51646/jsesd.v13i1.196 * **Corresponding author**

12. **Ikreedeegh**, Riyadh Ramadhan, Md. Arif Hossen and Muhammad Tahir. " *2D/2D GO-Modified g-C3N4 Nanocomposite for Efficient Photocatalytic CO2 Reduction to CH4 Under Visible Light.*" **Journal of Solar Energy and Sustainable Development** 13.1 (2024): 254-263.
https://doi.org/10.51646/jsesd.v13i2.218 * **Corresponding author**

13. **Ikreedeegh**, Riyadh Ramadhan, Md. Arif Hossen and Muhammad Tahir. "*Noble-Metal-Free Modified TiO_2 Nanotube Arrays (TNTAs) for Efficient Photocatalytic Reduction of CO_2 to CO Under Visible Light*. " **ChemistrySelect** 2024, 9, e202403536 **https://doi.org/10.1002/slct.202403536** **(IF = 1.9)** * **Corresponding author**

Co-author papers

1. Zhou, Yingtang, et al. "*Bimetallic metal–organic frameworks and MOF-derived composites: Recent progress on electro-and photoelectrocatalytic applications.*" **Coordination Chemistry Reviews** 451 (2022): 214264. **https://doi.org/10.1016/j.ccr.2021.214264** **(IF = 24.83)**

2. Hossen, Md Arif, et al. "*Enhanced photocatalytic CO2 reduction to CH4 using novel ternary photocatalyst RGO/Au-TNTAs.*" **Energies** 16.14 (2023): 5404. **https://doi.org/10.3390/en16145404** **(IF = 3.0)**

3. Hossen, Md Arif, et al. "*Carbon-based nanomaterials (CNMs) modified TiO2 nanotubes (TNTs) photodriven catalysts for sustainable energy and environmental applications: A comprehensive review.*" **Journal of Environmental Chemical Engineering** (2024): 114088. **https://doi.org/10.1016/j.jece.2024.114088** **(IF = 7.4)**

4. W. A. Khalifa, R. R. Ikreedeegh, M. F. A. Alkbir, M. A. F. M. S. Janudd, *Well-Designed 2D/2D/2D Ternary ZCO/CN/TiC Nanocomposite for Efficient Photocatalytic H2 Production Through Water Splitting Under Visible Light*. **ChemistrySelect** 2024, 9, e202403308.
https://doi.org/10.1002/slct.202403308 **(IF = 1.9)**

5. Hossen, Md Arif, et al. "*Optimization of anodizing parameters for the morphological properties of TiO2 nanotubes based on response surface methodology.*" **Next Materials** 2 (2024): 100061. **https://doi.org/10.1016/j.nxmate.2023.100061**

6. Zhang, Zongwen, et al. "*Efficient photocatalytic degradation of bisphenol A on 2D-3D spherically hierarchical structure Zn5In2S8.*" **Frontiers in Chemistry** 12 (2025): 1519370.
(IF https://doi.org/10.3389/fchem.2024.1519370 = 3.8)

7. Afif, Benameur, et al. "*Enhanced Efficiency and Dynamic Performance in Wind Power Generation Systems using Artificial Neural Networks and Predictive Current Control for PMSG-based Turbines.*" **Solar Energy and Sustainable Development Journal** 14.1 (2025): 157-181.

https://doi.org/10.51646/jsesd.v14i1.390 * Corresponding author

Book chapters

1. **Ikreedeegh**, Riyadh R., and Muhammad Tahir. "*Titanium Carbide (TiC) MXene-Based Titanium Dioxide Composites for Energy and Environment Applications.*" Titanium Carbide MXenes: Synthesis, Characterization, Energy and Environmental Applications (2024): 87-114. https://doi.org/10.1002/9783527838707.ch5