

# Waqas Qamar Zaman

Assistant Professor

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## About

Dr. Waqas Qamar Zaman is working as Assistant Professor in the Institute of Environmental Sciences & Engineering. Dr. Waqas Qamar Zaman has a PhD in Environmental Engineering. Dr. Waqas Qamar Zaman has published 35 research articles & conference papers having a citation count of 836, carried out 0 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Environmental Engineering</b> East China University of Science and Technology , China	2015 - 2019
<b>MS in Chemical Engineering</b> UET Lahore , Pakistan	2010 - 2013
<b>BS in Chemical Engineering</b> UET Lahore , Pakistan	2003 - 2007
<b>Post Grad Diploma in Pre Engineering</b> American University in Dubai , United Arab Emirates	2000 - 2002
<b>Matric (SSC) in Science</b> Hamdan Bin Mohammed e-University , United Arab Emirates	1998 - 2000

## Experience

<b>Assistant Professor</b> Institute of Environmental Sciences & Engineering	2023- Present
<b>Assistant Professor</b> Institute of Environmental Sciences & Engineering	2019 - 2023
<b>Lecturer</b> University of Gujrat , Jalapur Jattan Road Gujrat	2010 - 2015

## Awards

<b>Outstanding Postgraduate</b> Outstanding graduate of year 2019	2019
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## Professional Memberships

<b>PEC</b>	Since 2007
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## Research Articles

<b>De Novo synthesis of selenium-doped CeO<sub>2</sub>@Fe<sub>3</sub>O<sub>4</sub> nanoparticles for improving secondary metabolite biosynthesis in <i>Carthamus tinctorius</i> cell suspension culture</b> <i>Kamran Ashraf Zebo Liu Qamar uz Zaman MUHAMMAD ARSHAD Waqas Qamar Zaman Ali Shan Junxiog Yu Touseef ur Rehman Yingping Zhuang Meijin Guo Ali Mohsin</i> <i>Chemical Engineering Journal</i> , Volume:505, Article Number: 159705, Pages:15 <b>Impact Factor: 13.4   Quartile: 1</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.cej.2025.159705">https://doi.org/10.1016/j.cej.2025.159705</a>	2025
<b>Two-dimensional MXene and molybdenum disulphide for the removal of hexavalent chromium from water: A comparative study</b> <i>Asma Maqsood Abbasi Waqas Qamar Zaman Hassan Anwer Fahad Azad Xizi Long Waheed Miran Musharib Khan</i>	2024

Impact Factor: 1.000 | Quartile: 4 | Citations: 3

DOI: doi.org/10.1016/j.dwt.2024.100693

**Synthesis of CaCO<sub>3</sub> supported nano zero-valent iron-nickel nanocomposite (nZVI-Ni@CaCO<sub>3</sub>) and its application for trichloroethylene removal in persulfate activated system** 2024

Ali Shan Ayesha Idrees waqas qamar zaman Ali mohsin Zain Abbas Florian J. Stadler Shuguang Lyu

*Environmental Research*, Volume:245, Article Number: 118050

Impact Factor: 8.3 | Quartile: 1 | Citations: 13

DOI: 10.1016/j.envres.2023.118050

**Optimized electrocatalytic degradation of ciprofloxacin using Co<sub>3</sub>O<sub>4</sub> coated stainless steel electrodes** 2024

Muhammad Usman Saleem Muhammad Jawad Fahad Azad Muhammad Asif Nawaz Waqas Qamar Zaman Waheed Miran

*Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Volume 681, Article Number 132738

Impact Factor: 5.2 | Quartile: 2 | Citations: 6

DOI: 10.1016/j.colsurfa.2023.132738

**Performance comparison of a photosynthetic and mechanically aerated microbial fuel cell for wastewater treatment and bioenergy generation using different anolytes** 2023

Zia Ullah Waqas Qamar Zaman Zeshan Sheikh Muhammad Zeeshan Ali Khan Waheed Miran Jiansheng Li Muhammad Abdul Nasir Khan Shanza Shabbir

*Journal of Water Process Engineering*, Volume 56, Article Number 104358

Impact Factor: 7.0 | Quartile: 1 | Citations: 6

DOI: 10.1016/j.jwpe.2023.104358

**Nonthermal plasma catalysis using ferrites as an efficient catalyst for toluene degradation** 2023

Khurram Shahzad Ayub Zain Abbas Waqas Qamar Zaman Shoaib Rauf Muazzam Arshad Meesam Ali Waheed Miran Umair Mushtaq Haroon Khalid Ji Yang

*Research on Chemical Intermediates*, Volume 49, Pages 2399-2415

Impact Factor: 3.134 | Quartile: 3 | Citations: 2

DOI: 10.1007/s11164-023-05010-w

**Enhanced toluene degradation using Co<sub>3</sub>O<sub>4</sub> nanorods in post plasma catalysis** 2023

Zain Abbas Khurram Shahzad Ayub Waqas Qamar Zaman Ali Shan Ayesha Idrees Mureed Abbas Muhammad Umair Mushtaq Saqlain Abbas Limei Cao Ji

Yang

*Research on Chemical Intermediates*, Pages 1-11

Impact Factor: 3.134 | Quartile: 3 | Citations: 2

DOI: 10.1007/s11164-023-05025-3

**Feasibility Study of Anaerobic Baffled Reactor Coupled with Anaerobic Filter Followed by Membrane Filtration for Wastewater Treatment** 2023

Aamir Khan Sher Jamal Khan Waheed Miran Waqas Qamar Zaman Alia Aslam Hafiz Muhammad Aamir Shahzad

*Membranes*, Volume 13(1), Article Number 79

Impact Factor: 4.562 | Quartile: 1 | Citations: 6

DOI: https://doi.org/10.3390/membranes13010079

**Efficient toluene oxidation by post plasma catalysis over hollow Co<sub>3</sub>O<sub>4</sub> nanospheres** 2022

Zain Abbas Khurram Shahzad Ayub Waqas Qamar Zaman Ali Shan Ayesha Idrees Haroon Khalid Muhammad Umair Mushtaq Saqlain Abbas Limei Cao

Yang Ji

*Research on Chemical Intermediates*, Pages 1-14

Impact Factor: 3.134 | Quartile: 3 | Citations: 3

DOI: 10.1007/s11164-022-04930-3

**Efficient post-plasma catalytic degradation of toluene via series of Co–Cu/TiO<sub>2</sub> catalysts** 2022

Waqas Qamar Zaman Waheed Miran Meesam Ali Zain Abbas Umair Mushtaq Asif Shahzad Ji Yang Khurram Shahzad Ayub

*Research on Chemical Intermediates*, Pages 1-22

Impact Factor: 3.134 | Quartile: 3 | Citations: 13

DOI: 10.1007/s11164-022-04805-7

**Urchin-like magnetic microspheres for cancer therapy through synergistic effect of mechanical force, photothermal and photodynamic effects** 2022

Kai Wu Ali Mohsin Waqas Qamar Zaman Zefeizhang Wenyan Guan Maoquan Chu Yingping Zhuang Meijin Guo

*Journal of Nanobiotechnology*, Volume 20, Issue 1, Article Number 224

Impact Factor: 9.429 | Quartile: 1 | Citations: 21

DOI: 10.1186/s12951-022-01411-y

- Woven-fiber microfiltration coupled with anaerobic forward osmosis membrane bioreactor treating textile wastewater: Use of fertilizer draw solutes for direct fertigation** 2022  
*Kamran Manzoor Sher Jamal Khan Aamir Khan Hassam Abbasi Waqas Qamar Zaman*  
*Biochemical Engineering Journal*, Volume 181, Article Number 108385  
**Impact Factor:** 3.978 | **Quartile:** 2 | **Citations:** 12  
**DOI:** 10.1016/j.bej.2022.108385
- Efficient catalytic degradation of trichloroethylene in persulfate system by Ca-Fe<sub>2</sub>O<sub>3</sub> and Cu-Fe<sub>2</sub>O<sub>3</sub> nanoparticles: Mechanistic insights** 2022  
*Ayesha Idrees Ali Shan Waqas Qamar Zaman Ali Mohsin Zain Abbas Tanvir Shahzad Atif Shakeel Shuguang Lyu*  
*Journal of Environmental Chemical Engineering*, Volume 10, Issue 2, Article Number 107196  
**Impact Factor:** 5.909 | **Quartile:** 1 | **Citations:** 15  
**DOI:** 10.1016/j.jece.2022.107196
- Kinetically modelled approach of xanthan production using different carbon sources: A study on molecular weight and rheological properties of xanthan** 2021  
*Ali Mohsin Kanagat Akbota Akyliyaevna Waqas Qamar Zaman Muhammad Hammad Hussain Muhammad Zubair Mohsin Sarah al Rashed Xin Tian Xiwei Tian Kistaubayeva Aida Muhammad Tariq Muhammad Salman Haider Imran Mahmood Khan Sobia Niazi Yingping Zhuang Meijin Guo*  
*International Journal of Biological Macromolecules*, Volume 193, Pages 1226-1236  
**Impact Factor:** 6.953 | **Quartile:** 1 | **Citations:** 16  
**DOI:** 10.1016/j.ijbiomac.2021.10.163
- Removal of levofloxacin from aqueous solution by green synthesized magnetite (Fe<sub>3</sub>O<sub>4</sub>) nanoparticles using *Moringa olifera*: Kinetics and reaction mechanism analysis** 2021  
*Sikandar Altaf Rabeea Zafar Waqas Qamar Zaman Shakil Ahmad KHURRAM YAQOOB Asad Syed Asim Jahangir Khan Muhammad Bilal Muhammad Arshad*  
*Ecotoxicology and Environmental Safety*, Volume 226, Article Number 112826  
**Impact Factor:** 6.291 | **Quartile:** 1 | **Citations:** 82  
**DOI:** 10.1016/j.ecoenv.2021.112826
- Advances in sustainable approaches utilizing orange peel waste to produce highly value-added bioproducts** 2021  
*Ali Mohsin Muhammad Hammad Hussain Waqas Qamar Zaman Muhammad Zubair Mohsin Junhong Zhang Zebo Liu Xiwei Tian Salim Ur Rehman Imran Mahmood Khan Sobia Niazi Yingping Zhuang Meijin Guo*  
*Critical Reviews in Biotechnology*, Pages 1-21  
**Impact Factor:** 8.429 | **Quartile:** 1 | **Citations:** 50  
**DOI:** 10.1080/07388551.2021.2002805
- Enhancement in reactivity via sulfidation of FeNi@BC for efficient removal of trichloroethylene: Insight mechanism and the role of reactive oxygen species** 2021  
*Ali Shan Ayesha Idrees Waqas Qamar Zaman Zain Abbas Usman Farooq Meesam Ali Rumin Yang Guilu Zeng Muhammad Danish Xiangong Gu Shuguang Lyu*  
*Science of the total environment*, Volume 794, Article Number 148674  
**Impact Factor:** 7.963 | **Quartile:** 1 | **Citations:** 16  
**DOI:** 10.1016/j.scitotenv.2021.148674
- Influence of preparation method on copper ferrite characteristics for the efficient degradation of trichloroethylene in persulfate activated system** 2021  
*Ayesha Idrees Ali Shan Muhammad Danish Waqas Qamar Zaman Ali Mohsin Zain Abbas Jingyao Huang Tanvir Shahzad Yong Sun Zhiqiang Xu Shuguang Lyu*  
*Journal of Environmental Chemical Engineering*, Volume 9, Issue 5, Article Number 106044  
**Impact Factor:** 5.909 | **Quartile:** 1 | **Citations:** 13  
**DOI:** <https://doi.org/10.1016/j.jece.2021.106044>
- Development of a novel noninvasive quantitative method to monitor *Siraitia grosvenorii* cell growth and browning degree using an integrated computer-aided vision technology and machine learning** 2021  
*Xiaofeng Zhu Ali Mohsin Waqas Qamar Zaman Zebo Liu Zejian Wang Zhihong Yu Xiwei Tian Yingping Zhuang Meijin Guo Ju Chu*  
*Biotechnology and Bioengineering*, Volume 118, Issue 10, Pages 4092-4104  
**Impact Factor:** 4.53 | **Quartile:** 2 | **Citations:** 8  
**DOI:** 10.1002/bit.27886
- Catalytic nonthermal plasma using efficient cobalt oxide catalyst for complete mineralization of toluene** 2021  
*Zain Abbas Waqas Qamar Zaman Muhammad Danish Ali Shan Chenlong Ma Khuram Shahzad Ayub Muhammad Tariq Qicheng Shen Limei Cao Ji Yang*  
*Research on Chemical Intermediates*, Volume 47, Issue 6, Page 2407-2420  
**Impact Factor:** 2.914 | **Quartile:** 3 | **Citations:** 6

DOI: 10.1007/s11164-021-04406-w

**Rationally optimized generation of integrated Escherichia coli with stable and high yield lycopene biosynthesis from heterologous mevalonate (MVA) and lycopene expression pathways** 2021

Muhammad Hammad Hussain Qi Hong Waqas Qamar Zaman Ali Mohsin Yanlong Wei Ning Zhang Hongqing Fang Zejian Wang Haifeng Hang Yingping Zhuang Meijin Guo

*Synthetic and Systems Biotechnology*, Volume 6, Issue 2, Page 85-94

**Impact Factor:** 4.781 | **Quartile:** 1 | **Citations:** 28

DOI: 10.1016/j.synbio.2021.04.001

**Synthesis of nZVI-Ni@BC composite as a stable catalyst to activate persulfate: Trichloroethylene degradation and insight mechanism** 2021

Ali Shan Ayesha Idrees Waqas Qamar Zaman Zain Abbas Meesam Ali Muhammad Saif Ur Rehman Sabir Hussain Muhammad Danish Xiaogang Gu Shuguang Lyu

*Journal of Environmental Chemical Engineering*, Volume 9, Issue 1, Article Number 104808

**Impact Factor:** 7.968 | **Quartile:** 1 | **Citations:** 97

DOI: 10.1016/j.jece.2020.104808

**Xanthan-Curdlan nexus for synthesizing edible food packaging films** 2020

Waqas Qamar Zaman Ali Mohsin Meijin Guo Waheed Ahmed Imran Mehmood Khan Sobia Niazi Abdur Rehman Haifeng Hang Yinping Zhuang

*International Journal of Biological Macromolecules*, Volume 162, Pages 43-49

**Impact Factor:** 6.953 | **Quartile:** 1 | **Citations:** 65

DOI: 10.1016/j.ijbiomac.2020.06.008

**Lanthanides Regulated Amorphization-Crystallization of IrO<sub>2</sub> for Outstanding OER Performance** 2020

Chenglong Ma Wei Sun Waqas Qamar Zaman Zhenhua Zhou Hao Zhang Qicheng Shen Limei Cao Ji Yang

*ACS Applied Materials and Interfaces*, Volume 12, Issue 31, Pages 34980-34989

**Impact Factor:** 9.229 | **Quartile:** 1 | **Citations:** 64

DOI: 10.1021/acsami.0c08969

**Boosted up stability and activity of oxygen vacancy enriched RuO<sub>2</sub>/MoO<sub>3</sub> mixed oxide composite for oxygen evolution reaction** 2020

Muhammad Tariq Yiyi Wu Chenglong Ma Meesam Ali Zain Abbas Khurram Shahzad Ayub Jiacheng Zhou Gehui Wang Limei Cao Ji Yang Waqas Qamar Zaman

*International Journal of Hydrogen Energy*, Volume 45, Issue 35, Pages 17287-17298

**Impact Factor:** 5.816 | **Quartile:** 2 | **Citations:** 42

DOI: 10.1016/j.ijhydene.2020.04.101

**Cerium Surface Engineered Iridium Oxides for Enhanced Oxygen Evolution Reaction Activity and Stability** 2020

Waqas Qamar Zaman Wei Sun Chenglong Ma Jianjun Liao Chengjun Ge Ji yang

*ACS Applied Energy Materials*, Volume 3, No.5, Pages 4432-4440

**Impact Factor:** 6.024 | **Quartile:** 2 | **Citations:** 19

DOI: 10.1021/acsaem.0c00139

**Influential role of elemental migration in composite iron-zeolite catalyst for aromatics synthesis from syngas** 2020

Waqas Qamar Zaman Minzhe Li Muhammad Asif Nawaz GuiYao Song Dianhua Liu

*Industrial & Engineering Chemistry Research*, Volume 59, No.19, Pages 9043-9054

**Impact Factor:** 3.764 | **Quartile:** 2 | **Citations:** 39

DOI: 10.1021/acs.iecr.0c01282

**Efficient removal of trichloroethylene in surfactant amended solution by nano Fe<sub>0</sub>-Nickel bimetallic composite activated sodium persulfate process** 2020

Waqas Qamar Zaman Ali Shan Usman Farooq Shuguang Lyu Zain Abbas Meesam Ali Ayesha Idrees Ping Tang Ming Li Yong Sun Qian Sui

*Chemical Engineering Journal*, Volume 386, Article Number 123995

**Impact Factor:** 13.273 | **Quartile:** 1 | **Citations:** 55

DOI: 10.1016/j.cej.2019.123995

**Bimetallic Doped RuO<sub>2</sub> with Manganese and Iron as Electrocatalysts for Favorable Oxygen Evolution Reaction Performance** 2020

Waqas Qamar Zaman Yiyi Wu Muhammad Tariq Wei Sun Zhenhua Zhou Ji yang

*ACS Omega*, Volume 5, No.13, Pages 7342-7347

**Impact Factor:** 3.512 | **Quartile:** 2 | **Citations:** 34

DOI: 10.1021/acsomega.9b04237

**Facile synthesis of IrO<sub>2</sub> nanoparticles decorated @ WO<sub>3</sub> as mixed oxide composite for outperformed oxygen evolution reaction**

2019

Waqas Qamar Zaman Muhammad Tariq Yiyi Wu Azeem Nabi Zain Abbas Waheed Iqbal Wei Sun Zhang Hao Zhen Hua Zhou Limei Cao Ji Yang  
*International Journal of Hydrogen Energy*, Volume 44, Issue 59, Pages 31082-31093

**Impact Factor:** 4.939 | **Quartile:** 2 | **Citations:** 35

**DOI:** 10.1016/j.ijhydene.2019.10.013

## Conference Proceedings

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**Growth response of wheat and rice to application of Phosphorus based nanocoated-fertilizer**

2024

Farwah Yasin Sadia Manzoor Muhammad Arshad Waqas Qamar Zaman

*16th International Conference on Sustainable Energy & Environmental Protection SEEP 2024*, res.country(12,)

**Citations:** N/A

**DOI:** <https://seepconference.com/>

## Book Chapters

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**Antibacterial Properties of Two-Dimensional Nanomaterials**

2023

Elishba Noor Usman Liaqat Waqas Qamar Zaman Sabir Hussain Asif Shahzad Kashif Rasool Zaeem Bin Babar Waheed Miran

In: *Book on Two-Dimensional Materials for Environmental Applications*, 1st Edition, Chapter 5, Pages 137-160

**Citations:** 3

**DOI:** 10.1007/978-3-031-28756-5\_5