Dr. Reem Khalid Abdullatif AlBilali

Assistant Professor

Personal Data

Nationality | Saudi

Department | Chemistry

Official IAU Email | ralblali@iau.edu.sa

Office Phone No. |+966133337257

Language Proficiency

Language	Read	Write	Speak
Arabic	√	√	√
English	√	√	√

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2012	Ph.D., Physical Chemistry	University of Dammam	Dammam, Saudi Arabia
2006	M.Sc., Physical Chemistry	King Faisal University	Dammam, Saudi Arabia
2000	B.Sc., Chemistry	University of Dammam	Dammam, Saudi Arabia

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Study of the Interaction Behavior of Protoporphyrin IX with Montmorillonite Clay and Modified Silica Nanoparticles
Master	Corrosion and Corrosion Inhibition of Sabic Mild Steel in Acid Chloride Solution Containing Carbamide Derivatives.
Fellowship	Immobilized preformed metal nanoparticles for the one pot isomerization of allylic alcohols to saturated ketones and the transfer dehydrogenation of alcohols to carbonyl compounds at anaerobic conditions.

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Assistant Professor	Imam Abdulrahman Bin Faisal University	Dammam	Saudi Arabia	5/2/2013- Present
Post-Doctoral Research Fellow	Cardiff Catalysis Institute - Cardiff University	Cardiff	United Kingdom	15/9/2015 – 14/9/2017
Lecturer	University of Dammam	Dammam	Saudi Arabia	17/3/2009- 5/2/2013

Demonstrator	University of Dammam	Dammam	Saudi Arabia	11/6/2001-16/3/2009.

Scientific Achievements

- Published Refereed Scientific Researches
  (In Chronological Order Beginning with the Most Recent)

	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	M Ma, H Huang, C Chen, Q Zhu, L Yue, R Albilali	Highly active SBA-15-confined Pd catalyst with short rod-like micro-mesoporous hybrid nanostructure for n -butylamine low-temperature destruction	Molecular Catalysis, 2018, 455, 192-203
2	Mingjiao Tian, Mudi Ma, Bitao Xu Changwei Chen,Chi He, Zhengping Hao, Reem Albilali	Catalytic removal of 1,2-dichloroethane over LaSrMnCoO6/H-ZSM-5 composite: insights into synergistic effect and pollutant-destruction mechanism	Catalysis Science and Technology, 2018, 8, 4503-4514.
3	Changwei Chen, Huang Haung, Yanke Yu, Jianwen Shi, Chi He, Reem Albilali, Hua Pan	Template -free synthesis of hierarchical porous carbon with controlled morphology for CO_2 efficient capture	Chemical Engineering Journal, 2018, 584-594
4	Changwei Chen , Yanke Yu , Chi He , Li Wang , Huang Huang , Reem Albilali , Jie Cheng , Zhengping Hao.	Efficient capture of CO_2 Over ordered micro-mesoporous hybridcarbon nanosphere	Applied Surface Science, 2018, ,439, 113-121.
5	Albilali R, Douthwaite M, He Q and Taylor S.	The selective hydrogenation of furfural over supported palladium nanoparticle catalysts prepared by sol-immobilisation: effect of catalyst support and reaction conditions.	Catalysis Science and Technology, 2018,8, 252-267
6	Albilali R. and Dimitratos N.	Transfer Dehydrogenation of 1-Phenylethanol Over Pd/C Under Mild Conditions: Effect of Reaction Conditions and Optimization of Catalytic Performance.	Catalysis Letters, 2017, 147, 9: 2372–2384.
7	AlSuwyyan,A.,AlOmairen, g Morsi,M, AlBilali.R and AlOmair,N.	Interactive Physical Chemistry, English Version. (Book).	Imam Abdulrahman Bin Faisal University Publication Center, Dammam, Saudi Arabia. (2017).
8	Olfat M. Sadek, Safenaz M. Reda, Reem K. Al-Bilali	Preparation and Characterization of Silica and Clay–Silica Core-Shell Nanoparticles Using Sol-Gel Method.	Advanced in Nanoparticles, 2: 165-175.(2013).

9	A.G.Gad Allah, M.A.Al-Khalidi and R.K.AlBilali	Environmental Factors Affecting Corrosion of Sabic Mild Steel in Acid Chloride Solutions	Journal of Saudi Chemical Society.,11(1):147- 162.(2007)
10	AlSuwyyan, A.,AlOmairen, Morsi,M, AlBilali.R and AlOmair,N.	Interactive Physical Chemistry, Arabic Version. (Book).	AlMutanabbi LTD, Dammam, Saudi Arabia. (2013)

Completed Research Projects

	Name of Investigator(s) (Supported by)	Research Title	Report Date
1-	Reem AlBilali and Nikolaos Dimitratos, supported by the Deanship of Scientific Research at IAU University	Immobilized preformed metal nanoparticles for the one pot isomerization of allylic alcohols to saturated ketones and the transfer dehydrogenation of alcohols to carbonyl compounds at anaerobic conditions.	November/2017
2-	Reem K. Al-Bilali, Olfat M. Sadek and Safenaz M. Reda, supported by King Abdulaziz City for Science and Technology (KACST)	Study of the Interaction Behavior of ProtoporphyrinIX with Montmorillonite Clay and Modified Silica Nanoparticles	November/2013, grant number (AT-17-73)

- Current Researches

	Research Title	Name of Investigator(s)
1	The Selective Hydrogenation of Bio-Mass Derived Compounds Over Supported Palladium Nanoparticle Catalysts.	Reem AlBilali and Stuart Taylor
2	Investigation of precious-metal-based catalysts for the oxidative destruction of Volatile Organic Compounds (VOCs) for environmental protection.	Reem AlBilali and Stuart Taylor
3	Design of Low Temperature Hybrid TiO_2 -Cyanuric acid nanocomposites – Application in the photodegradation of organic pollutants in water	Hafedh Koshcar, Reem AlBilali and Ashwaq AlSaadi.

- Contribution to Scientific Conferences and Symposia

I- Participation in Conferences

	Conference Title	Research Title	Type of Participation	Date	Place of Conference
1	The 16th International conference on Emerging Materials and Nanotechnology	The Influence of Tuning the Particle Size of Titania-Supported Palladium Nanoparticles on their Catalytic Activity for Liquid Phase Transfer Dehydrogenation of 1-Phenylethanol	Oral Presentation	22-23/23/2018	London, UK
2	Europacat Conference 2017	Size Controlled Palladium Nanoparticles for the Transfer Dehydrogenation of 1-Phenylethanol under Mild Conditions	Poster	27-31st /8/2017	Florence, Italy
3	4th European Chemistry Congress	Transfer dehydrogenation of 1-phenylethanol over supported palladium nanoparticles under mild conditions	Oral Presentation	11/05/2017	Barcelona, Spain
4	Green Catalysis by Design (NOVACAM)	Impact of Stabilizers on Catalysis of Titania-Supported Palladium Nanoparticles for Liquid Phase Transfer Dehydrogenation of 1-phenylethanol	Poster	22/02/2017	University of Padova, Padova, Italy
5	Cardiff Catalysis Institute Annual Conference	Catalyzed Liquid Phase Transfer Hydrogenation of Aromatic Alcohols Using Supported Nanoparticles	Poster	10/01/2017	Cardiff University, Cardiff, United Kingdom
6	UK Catalysis Conference	Transfer dehydrogenation of 1-phenylethanol over supported palladium nanoparticles under mild conditions	Oral Presentation	04/01/2017	Holywell Park, Loughborough, England, United Kingdom
7	International Conference on Chemistry and Industry	Corrosion Inhibition of Sabic Mild Steel Under Mild Condtions	Poster	27/11/12/2004.	R King Saud University, Riyadh, Saudi Arabia,

II. Attended Conferences and Symposium

	Event Title	Event Type	Date	Organizer	Place of Event
1	.Engineering and Computer Science Forum	Forum	21 November 2015	Scientific Society for Saudi students in the UK	Cardiff University, Cardiff, UK
2	Cardiff Catalysis Institute Conference	Conference	5th-6th January 2016	Cardiff University	Cardiff University, Cardiff, UK
3	9th Saudi Students' Conference	Conference	13-14 Feb 2016	Saudi Arabian Culture Bureau in London	The ICC, Birmingham, Cardiff, UK
4	Perspectives on Applied Catalyst Characterization	Symposium	8th March 2016	Royal Society of Chemistry's Applied Catalysis Group	Durham University, UK
5	Professor Graham Hutching 65th Birthday Symposium	Symposium	16 March 2016	Cardiff Catalysis Institute	Cardiff University, Cardiff, UK
6	Cardiff Chemistry Conference	Conference	9-10 May 2016	Cardiff University	Cardiff University, Cardiff, UK
7	Providing sustainable catalytic solutions for a rapidly changing world	Symposium	8-9 May 2017	Royal Chemical Society	London, UK
8	Fourth International Conference for e-Learning and Distance Education,	Conference	2-5 March 2015	IAU University	Riyadh, Saudi Arabia
9	Fifth Saudi Scientific Conference	Conference	16-18 April 2012.	Umm Al-Qura University	Makkah, Saudi Arabia
11	The developmental and Economic Effects of Nanotechnology in Arabia	Conference	27-29 March 2010.	King Fahad University of Petroleum and Minerals,	Dhahran, Saudi Arabia
10	Fourth Saudi Scientific Conference,	Conference	21-24 March 2010.	Taiba University	A Madinah, Saudi Arabia, 21-24/3/2010.
11	Provincial Scientific Creativity (Conference), ,	Conference	26- 30 August 2006.	King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity	Jeddah, Saudi Arabia

Membership of Scientific and Professional Societies and Organizations

- MRSC member in the Royal Chemical Society, London, United Kingdom
- A member in American Chemical Society, Saudi Chapter (ACSSC).

- A member in Saudi Chemical Society, King Saud University
- A member in NACE, The Corrosion Society.
- A reviewer member in the International Conference on Material Research and Engineering (ICMRE)-2015
- A reviewer member in the Fifth Scientific Conference for Students of Higher Education in KSA, 2013/2014

Teaching Activities

Undergraduate

	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Colloidal Chemistry	Chem 426	Lectures
2	Kinetic Chemistry and Reaction mechanism	Chem 40	Lectures
2	Corrosion	Chem 421	Lectures
3	General Chemistry I	Chem101	Lectures
4	General Chemistry II	Chem102	Lectures
5	Electrochemistry (1)	Chem 225	Lab
6	The Chemistry of Surfaces and Catalysts.	Chem 323	Lab
7	General Chemistry (Physical and Inorganic)	Chem 101	Lab
8	Kinetic Chemistry	Chem 322	Lab
9	Electrochemistry (2)	Chem 425	Lab
10	Thermodynamic Chemistry (1)	Chem 203	Lab
11	Analytical Chemistry	Chem 241	Lab

12	Biochemistry (1).	Chem 261	Lab

- Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1	Colloidal Chemistry, Chem 426 The course is focused on particles that are dispersed in liquids. The topics presented in this course include: an introduction to colloidal systems and classification, preparation of colloids, stability of colloids, properties of colloids, coagulation and flocculation in colloidal solutions. Nearby topics, such as surfactants, emulsions and foams, are also covered to make the course complete on a stand-alone basis.
2	Kinetic Chemistry and Reaction mechanism Chem 402: The course includes an Introduction to kinetics, definition of reaction rates, factors that affect reaction rate, reaction rate constant, law and order, activation energy, temperature dependence of rate constants - Arrhenius equation, collision theory - transition state theory, zero, first, second and third order reactions, multiple order reactions and its applications, analysis of kinetic results, parallel reactions, reversible reactions and equilibrium, consecutive reactions, chain reactions and complex reaction mechanisms.
2	Corrosion, Chem 421 The course aims to highlight different aspects of corrosion chemistry including the thermodynamic of corrosion, the relation between free energy and corrosion cell potential, electrical double layer, Nernst equation and formal potential, electrochemical and galvanic series, Pourbaix Diagrams, kinetics of corrosion and method of corrosion protection.
3	General chemistry (I) Chem 101 The course covers these major subjects: Chemical foundations, atoms, Molecules, and Ions, stoichiometry, types of chemical reactions and solution stoichiometry, atomic structure and periodicity, bonding: general concepts.
4	General chemistry (II) Chem 102 The Course deals mainly with an introduction to the states of matter: solid, liquid and gas, gas laws, and kinetic theory of gases. This course includes types of solutions, ideal and non-ideal solutions, and colligative properties, chemical and ionic equilibrium. Topics also covered thermochemistry, energy changes in chemical reactions, acid-base equilibrium, buffer solutions as well. The topics covered in the practical content include some experiments on viscosity of liquids, density of liquids and solids, determining the molar mass of volatile liquids, measuring heat of enthalpies, equilibrium constant, pH, acid- base titration, buffer solution and buffer capacity.

- Course Coordination

	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	to
1	Kinetic Chemistry and Reaction mechanism Chem 402	√		√		9/2018	Present
2	Colloidal Chemistry, 426 Chem	√		√		9/2017	12/2018
3	Corrosion, 421 Chem	√		√		2014	2015

- Student Academic Supervision and Mentoring

	Level	Number of Students	From	to
	Different levels	40	2014	2018

- Ongoing Research Supervision

	Degree Type	Institution	Date
1	Supervising M.Sc Projects	Imam Abdulahman Bin Faisal Univerity	2018
2	Supervising 6 B.Sc Projects	Imam Abdulrahman Bin Faisal Univerity	2017
3	Supervising 2 B.Sc Projects	Imam Abdulahman Bin Faisal Univerity	2014-2015

Administrative Responsibilities, Committee and Community Service

(Beginning with the most recent)

- Administrative Responsibilities

	From	To	Position	Organization
1	9/2017	Present	Chair of Libraries Affair subcommittee in Chemistry Department	Imam Abdulrahman Bin Faisal Univerity
2	2014	2015	Chair of Scientific Research subcommittee in Chemistry Department	University of Dammam

- Committee Membership

	From	To	Position	Organization
1	9/2017	Present	A member of the committee of Ph.D. Development Program in in Chemistry Department	Imam Abdulrahman Bin Faisal Univerity
2	2008	Present	A member of the Student Advisor Committee in Chemistry Department	Imam Abdulrahman Bin Faisal Univerity
3	2010	2013	A member of Exam Progress Committee in Chemistry Department	University of Dammam

- Volunteer Work

	From	To	Type of Volunteer	Organization
1			Volunteering member in (Mawhiba) progaram	King Abdulaziz and his Companions Foundation for Giftedness and Creativity in cooperation with the IAU University
2	8/10/2017	10/10/2017	Volunteering to work with the Royal Society of Chemistry in Swansea Science Festival	National Waterfront Museum- Swansea, United Kingdom
3	7/2009	9/2009	Volunteering in self-development training sessions	Prince Mohammed bin Fahad Program for Saudi Youth Development
4	6/2007	9/2007	Volunteering member in (Mawhiba) program	King Abdulaziz and his Companions Foundation for Giftedness and Creativity

- Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Highly responsible, independent, critical thinking, ability to teamwork, creative, problem solving and making decisions, good communication skills.
2	Computer skills: Networking, Microsoft Office, able to work with different scientific software such as Origin, Chem draw, Casa XPS and many other software

Last Update

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