

Abdullah Al Ashraf

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Objective:

I wish to enhance and contribute my skills in Chemistry and Materials Science through research and development, and also hope to work in a challenging, dynamic team-working environment where both the strategic management skills and research-based work can be successfully applied to achieve strategic business goals.

Current Position:

Lab Technician at Center for Advanced Materials; Qatar University.

Education:

- M. Sc. in Materials Science and Technology (2016) Qatar University; Doha-Qatar
- B. Sc. in Chemistry (2013) Qatar University; Doha-Qatar
- Higher Secondary (2006) Bangladesh School & College; Doha-Qatar
- Secondary School (2004) Bangladesh School & College; Doha-Qatar

Publications:

1. Adnan Khan, Motasem W. Abdelrazeq, Manohar Reddy Mattli, Moinuddin M. Yusuf, **Abdullah Alashraf**, Penchal Reddy Matli, and R. A. Shakoor; “Structural and Mechanical Properties of Al-SiC-ZrO₂ Nanocomposites Fabricated by Microwave Sintering Technique”. *Crystals* (2020) 10, 904
2. Manohar Reddy Mattli, Adnan Khan, Penchal Reddy Matli, Moinuddin Yusuf, **A. Al-Ashraf**, R.A. Shakoor, Manoj Gupta; “Effect of Inconel625 particles on the microstructural, mechanical, and thermal properties of Al-Inconel625 composites”. *Materials Today Communications* (2020) 25, 101564
3. Yahia H. Ahmad, Assem T. Mohamed, **Abdullah Alashraf**, Maha Matalqeh, Ahmed El-Shafei, Siham Y. Al-Qaradawi, Amina S. Aljaber; “Highly porous PtPd nanoclusters synthesized via selective chemical etching as efficient catalyst for ethanol electro-oxidation”. *Applied Surface Science* (2020) 508, 145222
4. Gorakshnath Takalkar, Rahul R. Bhosale, Fares AlMomani, Anand Kumar, Aliya Banu, Anchu Ashok, Suliman Rashid, Majeda Khraisheh, Abdul Shakoor, **Abdullah al Ashraf**; Thermochemical splitting of CO using solution combustion synthesized LaMO₃ (where, M = Co, Fe, Mn, Ni, Al, Cr, Sr)”. *Applied Surface Science* (2020) 509, 144908

5. Gorakshnath Takalkar, Rahul R. Bhosale, Suliman Rashid, Fares AlMomani, Rana Abdul Shakoor, and **Abdullah Al Ashraf**; "Application of Li-, Mg-, Ba-, Sr-, Ca-, and Sn-doped ceria for solar-driven thermochemical conversion of carbon dioxide". *Journal of Materials Science* (2020) 55:11797–11807
6. Kamran Ali, Sivaprasad Narayana, R. A. Shakoor, Paul C. Okonkwo, Moinuddin M. Yusuf, **Abdullah Alashraf**, and Ramazan Kahraman; Synthesis and Performance Evaluation of Pulse Electrodeposited Ni-AlN Nanocomposite Coatings. *Scanning* (2018), 7187024,
7. Umair Nisar, Mona Hersi Gulied, R. A. Shakoor, Rachid Essehli, Zubair Ahmad, **Abdullah Alashraf**, Ramazan Kahraman, Siham Al-Qaradawi, and Ahmed Soliman; Synthesis and performance evaluation of nanostructured $\text{NaFe}_x\text{Cr}_{1-x}(\text{SO}_4)_2$ cathode materials in sodium ion batteries (SIBs). *RSC Advances* (2018) 8, 32985
8. Mansoor Ani Najeeb, Asma Alkareem, Muhammad Awais, Zubair Ahmad, R.A. Shakoor, **Abdulla Alashraf**, A. M. A. Mohamed, Jolly Bhadra, N.J. Al-Thani, Farid Touati, Saqib Rafique; "Effect of microwave sintering on the crystal domain and electrical properties of TiO_2 nanoparticles". *Journal of Nanoparticle Research* (2017) 19:199.
9. Zubair Ahmad, Mansoor Ani Najeeb, R. A. Shakoor, **Abdulla Alashraf**, Shaheen A. Al-Muhtaseb, Ahmed Soliman & M. K. Nazeeruddin; Instability in $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells due to elemental migration and chemical composition changes". *SCIENTIFIC REPORTS* (2017) 7, 15406
10. Mansoor Ani Najeeb, Zubair Ahmad, R.A. Shakoor, **Abdulla Alashraf**, Jolly Bhadra, N.J. Al-Thani, Shaheen A. Al-Muhtaseb, A.M.A. Mohamed; "Growth of MAPbBr_3 perovskite crystals and its interfacial properties with Al and Ag contacts for perovskite solar cells". *Optical Materials* (2017) 73, 50-55
11. Nabil K. Madi, Jolly Bhadra, Noora J. Al-Thani, **Abdullah Alashraf**, Dana Abdulmalik, Ilham Al-Qaradawi; "Adsorption Study of Pb(II) in Aqueous Medium Using Polyaniline Nanocomposites". *JOURNAL OF VINYL & ADDITIVE TECHNOLOGY* (2017)
12. N.J. Al-Thani, J. Bhadra, D. Abdulmalik, I. Al-Qaradawi, **A. Alashraf** & N.K. Madi; Positron annihilation study on polyaniline nanocomposite used for Pb(II) ion removal. *Desalination and Water Treatment* (2016) 57, 27374–27385
13. Zubair Ahmad, Jolly Bhadra, Farid Touati, **Abdullah Alashraf**, R. A. Shakoor and N. J. Al-Thani; "Flexible thermo-electrochemical cells using Iodolyte HI-30 for conversion of low-grade heat to electrical energy". *RSC Advances* (2016), 6, 71370.
14. Nader Shehata, Nabil Madi, Mariam Al-Maadeed, Ibrahim Hassounah & **Abdullah Ashraf**; Improved electrical conductivity of carbon/Poly vinyl alcohol electrospun nanofibers. *Journal of Nanomaterials* (2015) 812481

Research Experience:

1. Research Mentor on UREP projects:
 - UREP 21-033-2-01: Flexible organic photo-thermo-galvanic cells for low power generation
 - UREP 21-119-2-050: To study the charge transport properties and physical variables affecting the performance of polymer solar cells
 - UREP 20-132-1-023: Effect of nickel oxide nanoparticles' shape on the supercapacitance behavior of carbon fiber/nickel oxide nanocomposite.
 - UERP 16-078-2-022: Preparation and Characterization of a Low-Cost High Efficient Copper Indium Sulfide (CIS) Thin Film Solar Cell by Sol-Gel Technique
 - UREP 16-156-1-024: Metallic Nanoparticles/Organic Inhibitors as a Corrosion Inhibition System
2. Research Assistant at Center for Advanced Materials (CAM). October 2013 to May 2014 on solar energy project entitled "Development of Low Cost, Efficient CIS Solar Cell"
3. Undergraduate Research Experience Program (UREP), 14th cycle. December 2013 to June 2014. I am voluntarily participating in the project, which is related to "Synthesis and characterization of polyaniline nanocomposites with natural and synthetic surfactants and its application for lead (Pb) removal from aqueous solution".
4. Undergraduate Research Experience Program (UREP), 13th cycle. July 2013 to June 2014. Analysis of pesticides by GC-MS: the determination of pesticide residues in foodstuffs. In this research, certain agriculture foods e.g. rice, strawberry and tomato were selected. Using Gas Chromatography Mass Spectrometry (GC-MS) equipment, the presence of pesticides was identified through matching the results with more than 100 known pesticides.
5. Undergraduate Research Experience Program (UREP), 12th cycle. June 2013 to August 2013. I had voluntarily participated in the project, which was related to the synthesis and characterization of Nanoparticles (Ag_2O and TiO_2) and their applications on the removal of toxic heavy metals.
6. Undergraduate Research Experience Program (UREP), 11th cycle. September 2011 to March 2013. Analysis of Profenofos, and Cadusafos by GC-MS. In this research, we selected local vegetable (cucumber, tomato) from the market and identified the presence of these two pesticides (Profenofos, and Cadusafos) by GC--MS equipment.

7. Graduation research project which was entitled “Computational studies on 2, 3, 4-aminopyridines (APs)”, September 2011 to February 2012. This project was based on the “Computational studies of 2, 3, 4-aminopyridines”. Computational chemistry is one of the most useful tools for solving interesting chemistry problems. In my research project, the charge densities of these APs, as well as their infrared frequencies were calculated by Semi-Empirical, ab-initio (Hartree Fock) and Density Function Theory computational methods through “Gaussian-09” software.

Experience on equipment's:

- X-Ray Diffraction
- Broadband Dielectric Spectroscopy
- Benchtop Scanning Electron Microscope
- Profilometer
- Data physics contact angle measurement
- Spin coater
- Tube furnace
- Electro spinning
- Rotary evaporator
- Cyclic voltammetry
- Electronic microscopes
- Keithley 4200 for electric measurements

Computer Skills:

- Gaussian-09 (State-of-the-art capabilities for electronic structure modeling)
- HSC Chemistry (Designed for various kinds of chemical reactions and equilibrium calculations as well as process simulation).
- ArcGIS (A platform for designing and managing solutions through the application of geographic knowledge).
- Microsoft office 2007

Languages Known:

- Arabic (Moderate)
- English (Excellent)
- Bengali (Native)
- Hindi (Excellent)
- Urdu (Moderate)

Extra-Curricular activities:

- Participated in Materials Science and Engineering Symposium Poster presentation, 2014
- Attend short training course of Mesoporous Materials at CAM, 2013.
- Attend Injaz Job Shadowing event at Qatar SHELL QSTP at water lab, 2013
- Participated in CAS Research day poster presentation, 2013.
- Attend several international conferences:
 - Offshore Middle East Conference, 2013
 - Qatar Sustainability Expo, 2012

References:**Dr. Khalid Abdullah Majid Al-Saad, Ph.D.**

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