# **Curriculum Vitae (CV)**

#### 1. Personal Information

Name Rania Saleh Mones Alqurashi

Nationality Saudi

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| 2. | Education |   |
|----|-----------|---|
|    | 2018      | Doctor of Philosophy in Physics<br>The University of Sheffield, Sheffield, United Kingdom   |
|    | 2012      | Master of Science with Distinction in Nanoscale Science and<br>Technology<br>The University of Sheffield, Sheffield, United Kingdom |
|    | 2005      | Bachelor with Second Honour in Physics<br>Umm Al-Qura University, Mecca, Saudi Arabia   |

#### 3. Research Interests

Solar cell technologies (organic solar cells, perovskite solar cell, dye-synthesised solar cell, and quantum dot solar cell), Energy storage technologies, Nanotechnology, Nanomaterials in electronics, Characteristic spectroscopies, and Nanotechnology imaging.

# 4. Work Experience (Academic & Administrative)

- Work at Al Baha University, Albaha, Saudi Arabia (since 2007 to current) as
  - o Teaching Assistant. Physics Department, Faculty of Science | 2007-2016
  - o Lecturer. Physics Department, Faculty of Science | 2016-2018
  - o Assistant Professor. Physics Department, Faculty of Science | 2018 current
  - O Vice Dean of Faculty of Science at Female Section | 2008-2009
  - O Vice Head of Physics Department at Female Section | 2018-2020
  - Vice Head of Department's Schedules and Examinations Committee | 2019-2021
  - O Vice Head of Department's Graduation Studies Committee | 2019-2021
  - o Representor of Faculty of Science for Quality Control Management | 2018
  - o Representor of Faculty of Science for Community Partnership | 2018
  - o Internal Judge at the Deanship of Scientific Research | 2018

Teaching various general and specialized modules at the department;

General Physics 1, General Physics 2, Specialized English Language for Physicists, Modern Physics, Optical Physics, Spectroscopy, Solid state Physics 1, Electronics 1, Thin Films & Solar Cells, and Undergraduate Project.

- Lab Demonstrator. The University of Sheffield, Sheffield, United Kingdom | 2015
- Science Teacher. Al-Fadal Private School, Mecca, Saudi Arabia | 2005-2007
- Science Teacher. Al-Ma'arfah Private School, Mecca, Saudi Arabia | 2004-2005

# 5. Work Experience (Voluntary)

- English language editor. Openastronomy.com | 2017
- General Secretary. The Scientific Society for Saudi Students in the UK (SSSSUK), London, United Kingdom | 2017
- Vice Head of Natural Science Committee. The Scientific Society for Saudi Students in the UK (SSSSUK), London, United Kingdom | 2014-2016

# 6. Committee Membership at Al Baha University

- Member of The Scientific Council Board of the Institute for Studies and Consulting Services | 2019-current
- Member of Disciplinary Committee and Students' Issues in The Faculty of Science at Female Section | 2018-2019

# 7. Professional Membership

- Member of the Institute of Physics (IOP)
- Member of NanoGe
- Network Member of SUPERGEN SuperSolar

#### 8. Awards

- Scientific Excellence Award from the Cultural Attaché in the United Kingdom and Ireland | 2015
- Scientific Excellence Award from the Cultural Attaché in the United Kingdom and Ireland | 2016
- Certificate of Thankfulness and Appreciation for Distinguished Scientific Research by the Saudi Ambassador to UK, The Prince Mohammad Bin Nawaf Bin Abdul-Aziz | 2018

#### 9. Published Research

- o R. S. Alqurashi (2018) 'Interface Electronic Structure of Inverted Polymer Solar Cells' Ph.D Theses, University of Sheffield, UK.
- Abdullah Alsulami, Jonathan Griffin, Rania Alqurashi, Hunan Yi, Ahmed Iraqi, David Lidzey and Alastair Buckley (2016). 'Thermally Stable Solution Processed Vanadium Oxide as a Hole Extraction Layer in Organic Solar Cells'. Materials, 9, 235.
- Rania Alqurashi, Jonathan Griffin, Abdullah Alsulami, and Alastair Buckley (2016).
  'Open-Circuit Voltage in Inverted Polycarbazole: Fullerene Bulk Heterojunction Solar Cells'. IEEE Journal of Photovoltaics, 2156-3381.
- R. S. Alqurashi (2012) 'Manufacturing and Testing a New Solar Cells' MSc Dissertation, University of Sheffield, UK.

#### 10. Funded Research Projects

- ❖ Co-investigator in the Study of Native Albaha Date Palms for Water Decontamination and Solar Energy Applications, Al Baha University | 2020
- Principle investigator in the Study of Alien Nicotiana Glauca Grown Invasively in Albaha Province as Native and Sustainable Resource for Solar Energy Applications, Al Baha University | 2021
- Co-investigator in the Fabrication of Highly Efficient Nano Carbon Precursor Obtained From Macroalgae Existed in Red Sea and Neom's Coasts For Supercapacitor and Solar Cell Applications, Tabuk University | 2021

# 11. Professional Training Programmes

- (Online) The Energy Innovation and Emerging Technologies Program (2020). The Stanford Center for Professional Development, Stanford University, Stanford, USA. Courses were;
  - ✓ Behaviourally Informed Design for Energy Conversation
  - ✓ Economics of the Clean Energy Transition
  - ✓ Energy Storage
  - ✓ Emerging Technologies in Solar Cells
- (Online) Diploma on 'Event Management and Marketing' (2016), *Accredited by the Chartered Institute of Marketing (CIM)*. Ashdown Academy LtD, London, UK.
- The Sheffield Teaching Program (2013). The University of Sheffield, Sheffield, UK. Courses were;
  - ✓ Large Group Teaching (Lecturing)
  - ✓ Small Group Teaching (Seminar Facilitation)
  - ✓ Small Group Teaching (Laboratory Demonstration)
- Polymer Centre Training Course (2013). The University of Sheffield, Sheffield, UK.
  Courses were
  - ✓ Basic Polymer Technology

### ✓ Basic Polymer Science

# 12. Scientific Conference Participation

- Online Poster titled 'Investigation of thermal Annealing Effect on the Optical Properties of GaAsSb-Capped InAs/GaAs Quantum Dots for Intermediate Band Solar Cells'. The International Conference on Hybrid and Organic Photovoltaic | 2020
- Invited Talk titled 'Polymer Solar Cells (PSC): How Transparent Electrodes Have Contributed to the Targeted Efficiency?'. EMN Meeting on Transparent Electrodes-Energy Materials and Nanotechnology, Orlando, Florida, USA | 2016
- Poster titled 'Tunability of ITO Work Function by Thermal Annealing for Inverted Organic Photovoltaics'. The 9<sup>th</sup> Saudi Students Conference, Birmingham, UK | 2016
- Talk titled 'Tuning of ITO Work Function for Cathode Modification in Inverted Polymer Solar Cells' .UK Semiconductors 2015 Conference, Sheffield, UK | 2015
- Poster titled 'Tuning of ITO Work Function for Cathode Modification in Inverted Polymer Solar Cells'. The International Conference on Hybrid and Organic Photovoltaic 2015, Roma, Italy | 2015
- Poster titled 'High Performance Bulk-Heterojunction Organic Solar Cells Using Molybdenum (VI) Oxide Bis (2,4-pentanedionate) Precursor For Anode Interlayers'
   .The RSC Chemistry Centre, London, UK | 2014
- Attending One-day Conference on 'Advance in Photovoltaic'. The Institute of Physics (IOP), London, UK | 2014

# 13. General Workshops & Training Courses

- Online Training Course on 'Training of Trainers and Preparing Training Bags', Accredited by Technical and Vocational Training Corporation. [25 hours – 7 Days].
   Jasarah, Saudi Arabia | 2020
- Workshop on 'Infographic Design for e-Learning'. The Committee of e-Learning & Distance Education Deans in Saudi Universities, Saudi Arabia | 2019
- Workshop on 'Description of the Programs and Courses according to the Forms of the National Centre for Evaluation and Accreditation', Al-Baha University, Saudi Arabia | 2018
- Workshop on 'Self-assessment and Development of the Academic Program', Al-Baha University, Saudi Arabia | 2018
- Workshop on 'Formulation and Measurement of Education Outputs for Courses and Programs', Al-Baha University, Saudi Arabia | 2018

# 14. Delivered Seminars & Organized Events

- Seminar titled 'Organic Solar Cells'. Imam Mohammed Bin Saud University, Riyadh, Saudi Arabia | 2019
- Seminar titled 'The Role of Women in Science Development'. Faculty of Science, Al Baha University | 2018
- Talk titled 'Scholarship Journey to the United Kingdom: Personal Experience'.
  Deanship of Scientific Research and Graduate Studies, Al Baha University | 2018
- Organizing the 1<sup>st</sup> Symposium for Undergraduate Students on Electronics: Physics, Materials, and Applications. Faculty of Science. Al Baha University | 2019
- Organizing 'The 2<sup>ed</sup> Exhibition for Undergraduate Students on Physics'. Faculty of Science. Al Baha University | 2018
- Organizing 'Read and Rise Program'. Saudi Student Club in Sheffield, UK | 2017
- Organizing 'The Scientific Program of the 8<sup>th</sup> Saudi Students Conference'. Queen Elizabeth Il Centre, London, UK | 2015
- Organizing 'The Scientific Program of Advanced Nanotechnology Symposium'. The University of Leeds, Leeds, UK | 2015
- Organizing 'The Inaugural Ceremony of SSSSUK'. London School of Economics and Political Science, London, UK | 2014
- Organizing 'The 1<sup>st</sup> Exhibition for Undergraduate Students on Physics'. Faculty of Science. Al Baha University | 2009

# 15. Skills

- ✓ Excellent experience in LaTeX, OriginLab Pro, GraphPad Prism 6, and Chemdraw
- ✓ Expert in Microsoft Office software and reference managing softwares including (EndNote, Mendeley and JabRef)
- ✓ Familiar with CasaXPS software & AFM image processing software (NanoScope)
- ✓ Well trained on XPS & UPS analysis, AFM, UV-vis Spectrometer, Ellipsometry and Dektak
- ✓ Expert in Laser Deposition (LD), Spin coating and Spray Coating, thermal evaporation techniques