Curriculum Vita

PERSONAL INFORMATION:

Name: **Ahmad Ibrahim Abdelrahman Ayesh**

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EDUCATION AND QUALIFICATIONS:

- **PhD in Physics – Nanotechnology (2004 - 2007)**
  Thesis title: "Device fabrication using Bi nanoclusters"
  Physics and Astronomy department, University of Canterbury, Christchurch - New Zealand
- **MSc in Physics - Solid State (1992 – 1994)**
  Thesis title: "Photoluminescence spectrum of CdTe thin film treated with $CdCl_2$"
  Physics department, University of Jordan, Amman – Jordan
- **BSc in Physics (1988 – 1992)**
  Physics department, Yarmouk University, Irbid – Jordan

WORK EXPERIENCE:

1) ***Professor of Physics (25th March 2019 to present):*** Department of Mathematics, Statistics and Physics, Qatar University, Doha, Qatar.
2) ***Associate Professor of Physics (31st Aug. 2014 to present):*** Department of Mathematics, Statistics and Physics, Qatar University, Doha, Qatar.
3) ***Associate Professor (1st Sep. 2013 to 30th Aug. 2014):*** Department of Physics, United Arab Emirates University, Al Ain, United Arab Emirates.
4) ***Assistant Professor (Aug. 2008 – Aug. 2013):*** Department of Physics, United Arab Emirates University, Al Ain, United Arab Emirates.
5) ***Visiting Teaching Consultant (Feb. – Jun. 2008***): Physics Department, Sultan Qaboos University, Muscat, Oman.
6) ***Senior Tutor & Senior Lab Demonstrator (Mar. 2004 – Feb. 2008):*** Physics and Astronomy Department-University of Canterbury, Christchurch, New Zealand.
7) ***Laboratory Specialist (1995 – 2004):*** Physics Department, United Arab Emirates University, Al-Ain, United Arab Emirates.
8) ***Physics Teacher (1994 – 1995):*** Scientific Islamic College, Amman, Jordan.
9) ***Teaching Assistant (1992 – 1994)***: Physics Department, University of Jordan, Amman, Jordan.

RESEARCH OVERVIEW:

In the last years of my academic career, I was successful to secure many competitive project grants, as well as the supervision of many graduate students. My publication record includes many recognized papers in international journals and conferences, in addition to many papers under consideration for publication.

During my service at Qatar University, I had three major contributions to the research at the Department of Math., Stat. and Physics:

1) Development of organic devices using environmental friendly resources for applications that promote sustainable development such as: solar cells, gas sensors, memory devices, and others
2) Fabrication of nano-scale materials: nanoclusters, nanoparticles, and nanowires.
3) Studying the properties of nanomaterials, and developing ways of building nano-electronic devices from these nanomaterials such gas sensors and solar cells.
4) Development and in vitro assessment of bone-like calcium phosphate coatings on biocompatible alloys.

RECENT PUBLICATIONS:

1. **Ahmad I. Ayesh**, Aldana A. Alyafei, Rameen S. Anjum, Radwa M. Mohamed, Mai B. Abuharb, Belal Salah, and Maitha El-Muraikhi, "Production of sensitive gas sensors using CuO/SnO2 nanoparticles", Applied Physics A 125:550, 2856 (2019)
2. Leena A. Al-Sulaiti, Belal Salah, and **Ahmad I. Ayesh**, "Investigation of flexible polymer-Tl2O3 nanocomposites for x-ray detector applications", Applied Surface Science 489, 351-357 (2019).
3. **Ahmad I. Ayesh**, Belal Salah, and Leena A. Al-Sulaiti, "Production and characterization of flexible semiconducting polymer-nanoparticle composites for x-ray sensors", Radiation Physics and Chemistry, RPC8233 (2019).
4. Asma Wasfi, Falah Awwad, and **Ahmad I. Ayesh**, "Electronic Signature of DNA Bases via Z-shaped Graphene Nanoribbon with a Nanopore", Biosensors and Bioelectronics: X 1, 100011 (2019).
5. Ishaq Musa, Zaid Qamhieh, Saleh Mahmoud, Mohamad El-Shaer, **Ahmad Ayesh**, Naser Qamhieh, "Investigation of Optical and Electrical Properties of Cobalt-doped Ge-Sb-S Thin Film", Results in Physics 23, 102218 (2019).
6. Mohammad Abu Haija, Georgia Basina, Fawzi Banat, and **Ahmad I. Ayesh**, "Adsorption and gas sensing properties of CuFe2O4 nanoparticles", Materials Science-Poland 37(2), 289-295 (2019).
7. **Ahmad I. Ayesh**, Rayyan E. Ahmed, Mai A. Al-Rashid, Rafah Ahmed Alarrouqi, Belal Saleh, Tahir Abdulrehman, Yousef Haik, and Leena A. Al-Sulaiti, "Selective gas sensors using graphene and CuO nanorods", Sensors and Actuators A 283, 107–112 (2018).
8. Latifa Rahmani, Rachid Fitas, Amel Messai, and **Ahmad I. Ayesh**, "Investigation of proton diffusion coefficient for PbO2 prepared from intermediate oxides", Russian Journal of Electrochemistry 55 (7) 643 (2019), Russian in Elektrokhimiya 55 (7) 832 (2019).
9. Asma Wasfi, Falah Awwad, and **Ahmad I. Ayesh**, "Graphene-based Nanopore Approaches for DNA Sequencing: A Literature Review", Biosensors and Bioelectronics 119 (15), 191 – 203 (2018).
10. Mohammad Al-Haik, Mohammad Kabir, **Ahmad Ayesh**, Yousef Haik, and Saud Aldajah, "Doped Conductive Polymers and Single-walled Carbon Nanotubes as Charge Storage Devices", Materials Research Express 5 (9), 095023 (2018).
11. Khadija Said, Naser Qamhieh, Falah Awwad, and **Ahmad I. Ayesh**, "Fabrication and Characterization of Size-Selected Cu Nanoclusters using a Magnetron Sputtering Source", Sensors & Actuators: A. Physical 277, 112-116 (2018).
12. **Ahmad I. Ayesh**, "Size-selected fabrication of alloy nanoclusters by plasma-gas condensation", Journal of Alloys and Compounds 745, 299 - 305 (2018).
13. Abdul Rehman Said, Khadija Said, Falah Awwad, Naser N. Qamhieh, Saleh T. Mahmoud, Mohammed A. Meetani, Saeed Tariq, and **Ahmad I. Ayesh**, "Design, Fabrication, and Characterization of Hg2+ Sensor Based on Graphite Oxide and Metallic Nanoclusters", Sensors & Actuators: A. Physical 271, 270 - 277 (2018).
14. **Ahmad I. Ayesh**, Mohammad Abu Haija, Adel Shaheen, and Fawzi Banat, "Spinel ferrite nanoparticles for H2S gas sensor", Applied Physics A 123, 682 (2017).
15. Ayah F. S. Abu-Hani, Yaser E. Greish, Saleh T. Mahmoud, Falah Awwad, and **Ahmad I. Ayesh**, "Low-temperature and fast response H2S gas sensor using semiconducting chitosan film", Sensors & Actuators B: Chemical 253, 677 - 684 (2017).
16. **Ahmad I. Ayesh**, "Production of metal-oxide nanoclusters using inert-gas condensation technique", Thin Solid Films 636, 207 - 213 (2017).
17. Fatima Aouaidjia, Amel Messai, Rachid Siab, and **Ahmad I. Ayesh**, "A new tetranuclear copper (II) complex using a schiff base ligand: synthesis, structural, and magnetic studies", Polyhedron 133, 257 - 263 (2017).
18. Ahmed M. Soliman, S. A. A. Elsuccary, Ismail M. Ali, and **Ahmad I. Ayesh**, "Photocatalytic Activity of Transition Metal ions-loaded Activated Carbon: Degradation of Crystal Violet Dye Under Solar Radiation", Journal: Journal of Water Process Engineering 17, 245-255 (2017).
19. Ayah F. S. Abu-Hani, Falah Awwad, Yaser E. Greish, **Ahmad I. Ayesh**, Saleh T. Mahmoud, "Design, fabrication, and characterization of low-power gas sensors based on organic-inorganic nano-composite", Organic Electronics 42, 284-292 (2017).