

Abdullah S. Al-Dwayyan

Address: Physics & Astronomy Department,
College of Science,
King Saud University,
Riyadh 11451, P.O. Box 2455,
Saudi Arabia .
dwayyan@ksu.edu.sa
Tel: 01-4676380
Fax: 01-4673656
Mob: 0505178832



B.Sc. : Physics, King Saud University, Riyadh, Saudi Arabia.

M. Sc. : Laser Physics, Essex University , U.K.

Ph.D. : Optoelectronics, University of Wales College of Cardiff (UWCC), U.K.

Employment & Administrative History

- Vice dean for development & quality, College of Science, King Saud University (10/20014-).
- Member in the foundation board of King Abdullah Institute for Nanotechnology (2008-2013).
- Head of Nanotechnology Unit/KSU (2008- 2009).
- Head of Physics & Astronomy Dept. College of Science, King Saud University (2004 -2006)
- Professor- Physics Dept. College of Science, King Saud University (2014-).
- Associate Professor- Physics Dept. College of Science, King Saud University (2002-2013).
- Assistant Professor- Physics Dept. College of Science, King Saud University (1989–2002).

Last Published Papers (2-14-2015):

- K.H. Ibnaoufa, Saradh Prasad, A. Hamdan, M. AlSalh, A.S. Aldwayyan, M.B. Zaman, V. Masilamani “Photoluminescence spectra of CdSe/ZnS quantum dots in solution” *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 121, 339–345 (2014).
- M.A. Majeed Khan, Sushil Kumar, M. Naziruddin Khan, Maqsood Ahamed, A. S. Aldwayyan “Microstructure and blueshift in optical band gap of nanocrystalline Al_xZn_{1-x}O thin films” *Journal of Luminescence* 155 275–281(2014).
- Assem Barakat, Mohammed Suleiman, Belkheir Hammout, T. Ben Hadda, M. Al-Noaimi, S.F. Haddad, A. Boshala, A. S. Aldwayyan, Ismail Warad” One Step Synthesis of NiO Nanoparticles via Solid-state Thermal Decomposition at Low-Temperature of Novel Aqua- dmpheN-NiCl₂ Complex”, *Int. J. Mol. Sci.* 14, (2013).

- W. A. Farooq, S. M. Ali, W. Tawfik, A. Fatehmulla, M. Aslam, A. S. Aldwayyan, M. S. AlSalhi "Influence of Laser irradiation on nano-sized powder of Metal oxide " Russian Journal of Physical Chemistry A, 13 (2014).
- T. M. Al-Inad, W. Tawfik, W. A. Farooq, A. S. Aldwayyan "LIP Characteristics of Nanostructured ZnO Thin Films" (HONET), 2013 – IEEE Xplore (2014).
- M. Naziruddin Khan and A. S. Aldwayyan " Comparative Study on Electronic, Emission, Spontaneous Property of Porous Silicon in Different Solvent" Accepted in J.Nanomaterials (2014).
- W. A. Farooqa, K. G. Rasoolb, WalidTawfika and A. S. Aldawood, A S Aldwayyana "Application of Laser Induced Breakdown Spectroscopy in early detection of red palm weevil: (Rhynchophorusferrugineus) infestation in date palm" Proc. 8th Int. Con. LIBS. China, Sep (2014).
- Tahani R. Al-Biladi, A. S. Al Dwayyan, M. Naziruddin Khan, Saif M. H. Qaid, and Khalid Al Zahrani"Structural and Spectroscopic Characterization of PM 597 Dye-Silica Core-Shell Nanoparticles"Journal of Spectroscopy , Article ID 901032, Volume (2015,).
- H. M. Ghaithan , S. M. Qaid, M. Hezam, M. B. Siddique, I. M. Bedja, A.S Aldwayyan , "Measurements of electron lifetime and transport time in dye sensitized solar cell by using photovoltage and photocurrent decay" , Hybrid and Organic Photovoltaics Conference (HOPV15), Italy (2015).
- H. M. Ghaithan , S. M. Qaid, M. Hezam, M. B. Siddique, I. M. Bedja, A.S Aldwayyan , " Invoking the frequency dependence in square modulated light intensity techniques for the measurement of electron time constants in dye-sensitized solar cells " SPIE, USA (2015).

Manuscripts Sent for Publications:

- M. Hezam, .H. M. Ghaithan , Saif M. Qaid, M. Hezam, Idriss M. Bedja, A.S Aldwayyan , " Small Amplitude Square Modulated Light Intensity Techniques for Dye-sensitized Solar Cells: Invoking the Frequency Dependence
- H. M. Ghaithan , Saif M. Qaid, M. Hezam, M. B. Siddique, Idriss M. Bedja, A.S Aldwayyan , "Contrasted Electron Dynamics in between anatase TiO₂ nanoparticles and TiO₂ Nansheets with {001} Exposed Facets.
- M. Hezam,Saif Qaid, Joselito Labis, I. Bedja, Nazeeruddin Md. khaja, Abdullah Aldwayyana "Simple Hydrothermal Synthesis of Brookite TiO₂ Nanowires and their Application in Dye-Sensitized Solar Cells".
- Saif M. Qaid, M. Hezam, Idriss M. Bedja, Nazeeruddin Md. khaja,F. H. Alharbi, A.S Aldwayyan "Band-gap tuning of lead halide perovskites using a single step spin-coating deposition process" .

Patents:

- Abdullah Saleh Aldwayyan, Mohamad Saleh AlSalhi, Abdulrahman Mohammed Aldukhai, Mansour S. Alhoshan, Muhammad Naziruddin Khan, Ghassan K. Al-Chaar, and Munir H. Nayfeh; "Organosilicon nanosilicon composites and fabrication methods", USPTO Applicaton # 20100234204 - Class: 501/12 (USPTO).

- Munir H.Nayfeh; Osama M. Nayfeh, Mohamad S. AlSalhi, and Abdullah S. Aldwayyan; "Coated spherical silicon nanoparticle thin film UV detector with UV response and method of making" US Patent 6,992,298.

Books:

- Translation of the following books:
 1. "Lasers: Principles and Applications" by J. Wilson and J. F. B. Hawkes; Prentice Hall Press.
 2. " Introduction to Optics " by F. L. Pedrotti and S.J.L.S. Pedrotti; Prentice Hall Press.
 3. "Introduction to Nanotechnology " Charles P. Poolc Jr. and Frank J. Owens; J. Wiley & Sons, Inc

In collaboration with Prof. M Alsalhi.
- Editing:
 1. "Nanostructured Materials: Clissification, Properties, Fabrications, Characterization and their Applications in Biomedical Sciences”
 2. Two books with Prof. M. Alsalhi in Arabic about Nanotechnology.