Curriculum vitae

Name: Ahmed Shukur Hameed Al-Haddad

Date of birth: 08.09.1977 Place of birth: Baghdad, Iraq

Gender: Male

Address: Mustansiriyah District, 46007 Baghdad, Iraq Email: ahmed.al-haddad@uoumustansiriyah.edu.iq



Language skills

Arabic: Mother language

English: Fluent in speaking, writing, and reading Turkish: Fluent in speaking, writing, and reading German: Basic communication, level – B1

Scientific Career

Oct. 2018 – Present	Section	Editor,	Al-Mustansiriyah	Journal	of	Science,	Al-Mustansiriyah
	Universi	ty, Bagh	dad, Iraq.				

Oct. 2018 – Present Asst. Professor, Department of Physics, College of Science-Al-Mustansiriyah University, Baghdad, Iraq.

Mar. 2006 – Sep. 2018 Lecturer, Department of Physics, College of Science-Al-Mustansiriyah University, Baghdad, Iraq.

Oct. 2011 – Sep. 2016 PhD. Degree in Nanotechnology, 3D-Nanostrukturierung group, Institut für Physik & IMN, TU-Ilmenau, Germany.

Oct. 2001 – Feb. 2003 M.Sc. Degree in Solid State Physics, Department of Physics, College of Science-Al-Mustansiriyah University, Baghdad, Iraq.

Oct. 1995 – July 2000 B.Sc. Degree in General Physics, Department of Physics, College of Science-Al-Mustansiriyah University, Baghdad, Iraq.

Teaching & Work Experiences

Oct. 2021 – Sep. 2022	Asst. Professor - Department of Physics, College of Science-Al-Mustansiriyah
	University, Iraq. Nanotechnology for MSc. Students.

Oct. 2021 – Sep. 2022	Asst. Professor - Department of Physics, College of Science-Al-Mustansiriyah
	University, Iraq. Material Science for BSc. Students.

Oct. 2020 – Sep. 2021	Asst. Professor - Department of Physics, College of Science-Al-Mustansiriyah
	University, Iraq. Material Science for MSc. Students.

- Oct. 2017 Sep. 2018 Lecturer Department of Physics, College of Science-Al-Mustansiriyah University, Iraq. Two semesters Fundamental Physics.
- Dec. 2016 Sep. 2018 Lecturer Department of Physics, College of Science-Al-Mustansiriyah University, Iraq. Two semesters Computer Science.
- Apr. 2012 May 2014 Physikalisches Grundpraktikum, Institut für Physik & IMN, TU-Ilmenau.

- Mar. 2009 June 2011 Lecturer Department of Physics, College of Science-Al-Mustansiriyah University, Iraq. Two semesters Mathematical Physics.
- Apr. 2006 Mar. 2009 Lecturer Assistant Department of Physics, College of Science-Al-Mustansiriyah University, Iraq. Four semesters Digital Circuit and two semesters thermodynamics Laboratory.

Awards & Honours

- 1. Deutsche Physikalische Gesellschaft e.V. (DPG) membership since 2011-2020.
- 2. Deutscher Akademischer Austauschdienst (DAAD) scholarship from 2011-2015.
- 3. Certification of Reviewing form Nano Energy Journal (Elsevier) in 2017.
- 4. Section Editor, Al-Mustansiriyah Journal of Science (Mustansiriyah University) 2018-present.
- 5. Certification of Reviewing form Applied Energy Journal (Elsevier) in 2019.

Publications

- Albarazanchi A. K., <u>Al-Haddad A.</u>, Sultan M. F. J. C. 'Plasmonic Enhancement Mechanism of Template-Based Synthesized Au@ TiO₂ Nanodiscs'. *ChemNanoMat*, **2021**, 7 (1), 27-33. (IF=3.384)
- 2. <u>Al-Haddad A.</u>, Kadhim Z. J., Khudhair S. A., Ali A. M., Muhsen A. O., Salim F. M., Kadhim B. B. 'TiN@ Al₂O₃/Al nanocapacitor based on anodic aluminum oxide template'. *AIP Conf. Proc.*, **2020**, 2307 (1), 020016.
- 3. Tarish S., Xu Y., Wang Z., Mate F., <u>Al-Haddad A.</u>, Wang W., Lei Y. 'Highly efficient biosensors by using well-ordered ZnO/ZnS core/shell nanotube arrays'. *Nanotechnology* **2017**, 28 (40), 4484. (IF=3.551)
- 4. Vellacheri R., Zhao H., Mühlstädt M., <u>Al-Haddad A.</u>, Jandt K.D., Lei Y., 'Rationally Engineered Electrodes for High-Performance Solid-State Cable-Type Supercapacitor'. *Adv. Fun. Mater.* **2017**, 27, 1606696. (IF=16.836)
- 5. <u>Al-Haddad A.</u>, Wang Z., Zhou M., Tarish S., Vellacheri R., Lei Y., 'Constructing Well-Ordered CdTe/TiO₂ Core/Shell Nanowire Arrays for Solar Energy Conversion'. *Small* **2016**, 12 (40), 5648. (IF=11.459)
- 6. Al-Haddad A., Wang C., Qi H., Grote F., Wen L., Bernhard J., Vellacheri R., Tarish S., Nabi G., Kaiser U., Lei Y., Highly-Ordered 3D Vertical Resistive Switching Memory Arrays with Ultralow Power Consumption and Ultrahigh Density'. ACS Appl. Mater. Interfaces 2016, 8, 23348. (IF=8.758)
- 7. Vellacheri R., Zhao H., Mühlstädt M., Ming J., <u>Al-Haddad A.</u>, Wu M., Jandt K. D., Lei Y., 'All-Solid-State Cable-Type Supercapacitors with Ultra-High Rate Capability'. *Adv. Mater. Technol.* **2016**, 1, 1600012. (IF=5.969)
- 8. Tarish S. *, Al-Haddad A. *, Xu R., Cao D., Wang Z., Qu S., Nabi G., Lei Y., 'The Shift of the Optical Absorption Band Edge of Zno/Zns Core/Shell Nanotube Arrays Beyond Quantum Effects'. J. Mater. Chem. C 2016, 4, 1369. (*contributed equally), (IF=7.059)
- 9. <u>Al-Haddad A.</u>, Zhan Z., Wang C., Tarish S., Vellacheria R., Lei Y., 'Facile Transferring of Wafer-Scale Ultrathin Alumina Membranes onto Substrates for Nanostructure Patterning'. *ACS Nano* 2015, 9, 8584. (IF=14.588)

- 10. <u>Al-Haddad A.</u>, Wang Z., Xu R., Qi H., Vellacheri R., Kaiser U., Lei Y., 'Dimensional Dependence of the Optical Absorption Band Edge of TiO₂ Nanotube Arrays Beyond the Quantum Effect'. *J. Phys. Chem. C* **2015**, *119*, 16331. (IF=4.189)
- 11. Tarish S., Wang Z., <u>Al-Haddad A.</u>, Wang C., Ispas A., Romanus H., Schaaf P., Lei Y., 'Synchronous Formation of Zno/Zns Core/Shell Nanotube Arrays with Removal of Template for Meliorating Photoelectronic Performance'. *J. Phys. Chem. C* **2015**, *119*, 1575. (IF=4.189)
- 12. Vellacheri R., <u>Al-Haddad A.</u>, Zhao H., Wang W., Wang C., Lei Y., 'High Performance Supercapacitor for Efficient Energy Storage under Extreme Environmental Temperatures'. *Nano Energy* **2014**, *8*, 231. (IF=16.602)
- 13. <u>Al-Haddad A.</u>, 'Preparation and Study of Electrical Characteristics of (n-CdS/p-Ge) Thin-Film Heterojunction', *Engineering & Technology Journal*, **2009**, 27,1701.
- 14. <u>Al-Haddad A.</u>, Abaas K. and Abed A., 'Study of the Electrical Characteristics of (p-CdTe/n-Si) Heterojunction', *Journal of College of Education*, **2009**, N9,570.
- 15. Abed A., Abaas K. and <u>Al-Haddad A.</u>, 'Co₂ Laser Maximum Cutting Speed of Composite Materials', *Journal of College of Education*, **2009**, N6,425.
- 16. <u>Al-Haddad A.</u>, 'Study of the Detection Ability of (p-CdTe/n-Si) Heterojunction at Visible and Near Infrared Regions, *Journal of the Faculty of Education*, **2008**, N3, 319.

Conference contributions

- 1. <u>Al-Haddad A.</u>, Zhao H. P., Tarish S., Wang C., Zhan Z., Wang Z., Vellacheri R., Lei Y., Wafer Scale Anodic Aluminum Oxide Templates Toward Functional Nanostructuring Materials and Potential Device Applications, 3rd International Conference & 5th International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), June 20-21.2016, Ilmenau, Germany. (Talk)
- 2. <u>Al-Haddad A.</u>, Zhao H. P., Zhan Z., Wen L. Y., Zhou M., Lei Y., Templates for Nanostructuring Functional Materials Toward Potential Device Applications, 2nd International Conference & 4th International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), June 30-31.2015, Ilmenau, Germany. (Poster)
- 3. Zhan Z., Al-Haddad A., Xu R., Mi Y., Zhao H., Lei Y., Highly Controllable Surface Plasmon Resonance (SPR) Property Based on the Improved Ultrathin Alumina Membrane (UTAM) Technique, 2nd International Conference & 4th International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), June 30-31.2015, Ilmenau, Germany. (Talk)
- 4. Wang Z., Cao D., Mi Y., Nasori N., <u>Al-Haddad A.</u>, Tarish S., Wang W., Cheng L., Lei Y., Manipulations of Various Nano-structures for Photoelectrochemical and Electronic Applications, 1st International Conference & 3rd International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), July 29-31.2014, Ilmenau, Germany. (Talk)
- 5. Zhao H., Zhan Z., <u>Al-Haddad A.</u>, Grote F., Wen L., Mi Y., Zheng Y., Wang W., Lei Y., Aluminum Oxide (AAO) Template and Ultra-Thin Alumina Membrane (UTAM) Technique for Preparation of Functional Nanostructures, 1st International Conference & 3rd International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), July 29-31.2014, Ilmenau, Germany. (Poster)

- 6. Vellacheri R., Grote F., Wen L., Zhao H., <u>Al-Haddad A.</u>, Mi Y., Lei Y., High Performance Supercapacitors for Efficient Energy Storage, 1st International Conference & 3rd International MacroNano-Colloquium on the Challenges and Perspectives of Functional Nanostructures (CPFN), July 29-31.2014, Ilmenau, Germany. (Poster)
- 7. <u>Al-Haddad A.</u>, Tarish S., Vellacheri R., Wang W., Grote F., Zhan Z., and Lei Y., Diameter-Dependent Absorption Edges of One-Dimensional TiO₂ Nanotube Arrays by Atomic Layer Deposition, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Talk)
- 8. <u>Al-Haddad A.</u>, Tarish S., Vellacheri R., Zheng Y., Wen L. Y., Xu Y., Lei Y., Tunable Silicon Nanowire Arrays Based on A New Method to Transfer Large Area of Ultra-Thin Alumina Membranes, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Poster)
- 9. Zheng Y., Wang W., <u>Al-Haddad A.</u>, Zhao H., Wang C., and Lei Y., Organic Surface Nano-Patterns Prepared by Using Nano-Porous Templates, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Talk)
- Tarish S., Wang C., <u>Al-Haddad A.</u>, Wang Z., Zhan Z., Lei Y., Controlled fabrication of ZnO/ZnS Core-Shell Nanotube Arrays Prepared on Anodic Aluminum Oxide with Enhanced Photoluminces and Electronic Properties, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Talk)
- 11. Vellacheri R., <u>Al-Haddad A.</u>, Wang W., Zhao H., Wang C., Wang Z., Lei Y., Graphene-Based Supercapacitors for Energy Storage Under Extreme Temperature Conditions, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Talk)
- 12. Wang W., Zheng Y., Vellacheri R., Cheng L., Wang C., Zhao H., <u>Al-Haddad A.</u>, Lei Y., Metal Plasmonic Structures Based on Anodic Aluminum Oxide (AAO) and Ultrathin Alumina Membranes (UTAM) for SERS and Sensor Applications, 78th Annual Conference of the DPG, March 30- April 04, 2014, Dresden, Germany. (Talk)
- 13. <u>Al-Haddad A.</u>, Zhao, H. P., Vellacheri R., Mi Y., Tarisch S., Lei Y., Large Aria Ultrathin Alumina Membranes to Fabricate Highly Ordered Heterojunction Core-Shell Nanostructure, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (Talk)
- 14. Vellacheri R., Zhao, H. P., <u>Al-Haddad A.</u>, Grote F., Lei Y., High-Performance Supercapacitors Based on Ordered Nanoarrays, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (Talk)
- 15. Grote F., Wen L., Zhan Z., <u>Al-Haddad A.</u>, Mi Y., Tarish S., Wang C., Vellacheri R., Zhao H., Lei Y., Realizing Three-Dimensional Nanostructures Using Nano-Templates: Concept, Properties and High Performance Devices, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (Talk)
- 16. Wen L., Mi Y., Grote F., <u>Al-Haddad A.</u>, Zhan Z., Zhao H., Lei Y., Nano-Engineered Three-Dimensional Pt/MnO₂ Thin Films for Flexible, High Performance Supercapacitors, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (Talk)
- 17. Wang W., Zheng Y., <u>Al-Haddad A.</u>, Mi Y., Zhao H., Lei Y., Fabrication of Plasmonic Ag/Au Arrays Used as Sensitive Platform for Glucose Assay, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (Talk)
- 18. Tarish S., Wang C., <u>Al-Haddad A.</u>, Zhan Z., Zhao H., Lei Y., Fabrication and Characteristics of ZnO/ZnS Core-Shell Nanotubes Based on Template-Fabrication Techniques, 77th Annual Conference of the DPG, March 10-15, 2013, Regensburg, Germany. (**Poster**)

- 19. <u>Al-Haddad A.</u>, Fang Y., Zhao, H. P. and Lei Y., Three-Dimensional TiO₂ Nanotube Arrays for Photo-Device Application, 76th Annual Conference of the DPG, April 25-30, 2012, Berlin, Germany. (Poster)
- 20. Wen L., Zhao H., Grote F., Mi Y., Vellacheri R., Zhan Z., <u>Al-Haddad A.</u>, Fang Y., Wong K. M., Lei Y., Template-Based Surface Nano-Patterning to Realize High Performance Devices, 76th Annual Conference of the DPG, April 25-30, 2012, Berlin, Germany. (Talk)
- 21. <u>Al-Haddad A.</u>, Khalil E. H., Study of the Detection Ability of (p-CdTe/n-Si) Heterojunction at Visible and Near Infrared Regions. Third scientific conference in scientific college-Baghdad University, 2009, Baghdad, Iraq, (Talk)