**CURRICULUM VITAE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Full Name:*** | **Oday A. Hammadi** | | |  |
| ***Name in Passport:*** | **Oday Atta Hammadi** | | |
| ***Date of Birth:*** | **8th August 1975** | | |
| ***Place of Birth:*** | **Baghdad, Iraq** | | |
| ***Marital Situation:*** | **Married** | | |
| ***Children:*** | **One (Girl)** | | |
| ***Languages:*** | **Arabic (native)**  **English (read, written, spoken)** | | |
| ***Permanent Address:*** | **Al-Khadraa district, Sec. 613, St. 15, no. 4** | | | |
| ***Current Address:*** | **Department of Physics,**  **College of Education,**  **Al-Iraqia University,**  **Baghdad, IRAQ** | | | |
| ***Postal Address:*** | **P. O. Box 55159, Baghdad 12001, Iraq** | | | |
| ***Phone:*** | **00964 7702 523 371** | | | |
| ***Email:*** | [**odayata2001@yahoo.com**](mailto:odayata2001@yahoo.com) | | | |
|  |  | | | |
| ***Education:*** |  | | | |
| * B.Sc. in laser physics from the University of Technology, Baghdad in 1998, project titled: fabrication of Ohmic contacts on silicon substrates by pulsed Nd:YAG laser, supervised by Dr. Raed A.W. Ismail (Ph.D. UOT, 1996) | | | | |
| * M.Sc. in laser physics from the University of Technology, Baghdad in 2001, thesis titled: Design and Construction of a CW CO2 Laser for Plastic Cutting, supervised by Dr. Dayah N. Raouf (Ph.D. Hull, UK 1985) & Dr. Najem A.K. Al-Rubaiey (Ph.D. Reading, UK 1995) | | | | |
| * Ph.D. in molecular and laser physics from the University of Baghdad, in 2014, thesis titled: Design and Construction of Closed-Field Unbalanced Magnetron for Plasma System to Prepare Nano Film Detectors, supervised by Dr. Firas J. Kadhim (Ph.D. UOB, 2009) and Dr. Mohammed K. Khalaf (Ph.D. UOB, 2010) | | | | |
|  | | |  | |
| ***Employment History:*** | | |  | |
| * 2003-2004, Faculty member at Department of Communications, Erbil Technical Institute, Erbil, Iraq | | | | |
| * 2005-2006, Faculty member at College of Science, Almustansiriya University, Baghdad, Iraq | | | | |
| * 2006-2007, Faculty member at Department of Laser & Optoelectronics Engineering, University of Technology, Baghdad, Iraq | | | | |
| * 2008-2009 (June-November), Faculty member at Department of Optical Technology, Dijlah University College, Baghdad, Iraq | | | | |
| * November 2009-2015, Faculty member at Department of Physics, Faculty of Education, Al-Iraqia University, Baghdad, Iraq | | | | |
| * Visiting Scholar at College of Math and Science, University of Central Oklahoma (UCO, USA) June-September 2015 | | | | |
|  | | | | |
| ***Experiences & Skills:*** | |  | | |
| * More than 40 articles, papers and letters published in scientific journals, periodicals and conference proceedings on lasers, solar cells, optoelectronics, nanostructures and applications in Iraq and foreign countries | | | | |
| * Good user of computers and software such as Word, Excel, Access, PowerPoint, Grapher, MATLAB, VisioTechnical, Photoshop, Premiere, PowerDirector, Internet | | | | |
| * 2004-2005, Director of information and cultural relations of the Iraqi Society for Alternative and Renewable Energy Sources and Techniques, Baghdad, Iraq | | | | |
| * 2004-2008, Managing Editor of Iraqi Journal of Applied Physics, Baghdad, Iraq | | | | |
| * 2007-2009, Executive Director of the Iraqi Society for Alternative and Renewable Energy Sources and Techniques, Baghdad, Iraq | | | | |
| * 2008-2012, Editorial board member of the Iraqi Journal of Applied Physics Letters, Baghdad, Iraq | | | | |
| * 2013-still, Board member of the Iraqi Society for Alternative and Renewable Energy Sources and Techniques, Baghdad, Iraq | | | | |
| * Reviewer for Turkish Journal of Physics, 2011 | | | | |
| * Reviewer for Solid State Sciences, Elsevier, 2013 | | | | |
| * Reviewer for Materials Science in Semiconductor Processing, Elsevier, 2015 | | | | |
| * Reviewer for Journal of X-Ray Science and Technology, IOS, 2015 | | | | |
| * Course on transformative learning at UCO, 2015 | | | | |
|  | | | | |
| ***Membership of Scientific Societies*** | | | | |
| * Board member of Iraqi Physics Society, since 1998 | | | | |
| * Board member of Iraqi Society for Alternative and Renewable Energy Sources and Techniques, since 2004 | | | | |
| * Member of Optical Society of America (OSA), since 2015 | | | | |
| * Member of IEEE Photonics Society, since 2015 | | | | |
|  | | | | |
| ***Teaching the following courses:*** | | | | |
| * ***Fundamentals of Lasers,*** 2nd year of Communications Department, Erbil Technical Institute, 2004/2005 | | | | |
| * ***Engineering Mathematics,*** 2nd year, Electric Power Division, Erbil Technical Institute, 2004/2005 | | | | |
| * ***Solid State Physics,*** 4th year, Applied Physics Division, School of Applied Sciences, University of Technology, 2005/2006 | | | | |
| * ***Medical Statistics,*** 3rd year, Department of Optical Technology, Dijlah University College, 2009/2010 | | | | |
| * ***Engineering Mathematics,*** 1st year, Department of Computer Engineering, Dijlah University College, 2009/2010 | | | | |
| * ***Advanced Engineering Mathematics,*** 2nd year, Department of Computer Engineering, Dijlah University College, 2009/2010 | | | | |
| * ***University Physics,*** 1st year, Department of Biology, Al-Iraqia University, 2009/2010 | | | | |
| * Registrar of Department of Physics, Al-Iraqia University, 2010/2011 | | | | |
| * ***Astrophysics,*** 2nd year, Department of Physics, Al-Iraqia University, 2011/2012 | | | | |
| * ***Optics,*** 2nd year, Department of Physics, Al-Iraqia University, 2012/2013 | | | | |
| * ***Plasma Physics,*** 3rd year, Department of Physics, Al-Iraqia University, 2013/2014 | | | | |
| * ***Plasma Physics,*** 3rd year, Department of Physics, Al-Iraqia University, 2014/2015 | | | | |
| * ***Laser Physics,*** 4th year, Department of Physics, Al-Iraqia University, 2014/2015 | | | | |
| * ***Introduction to Electromagnetics,*** 4th year, Department of Physics, Al-Iraqia University, 2014/2015 | | | | |
| * ***Supervisor of Educational Means Lab,*** 4th year, Department of Physics, Al-Iraqia University, 2014/2015 | | | | |
| * ***Laser Physics,*** 4th year, Department of Physics, Al-Iraqia University, 2015/2016 | | | | |
| * ***Excel and Visual Basic,*** 2nd year, Department of Physics, Al-Iraqia University, 2015/2016 | | | | |
| * ***Supervisor of Educational Means Lab,*** 4th year, Department of Physics, Al-Iraqia University, 2015/2016 | | | | |
| * ***Director of Digital Physics Library Project,*** Department of Physics, Al-Iraqia University, 2015/2016 | | | | |
| * ***Fundamentals of Magnetron Sputtering,*** advanced course for graduate students, Department of Physics, College of Science, University of Baghdad, 2015 | | | | |
| * Supervising several undergraduate projects in Laser & Optoelectronics, and Applied Physics, School of Applied Sciences, University of Technology, 2004-2008 | | | | |
| * Supervising undergraduate projects in Physics, Department of Physics, Al-Iraqia University, since 2013 | | | | |
|  | | | | |
| ***Research activities and work teams:*** | | | | |
| * Working on laser-induced diffusion in semiconductors since 1998 | | | | |
| * Working on CO2 laser design and applications since 1999 | | | | |
| * Working on plasma-induced bonding of semiconductors since 2001 | | | | |
| * Working on laser spectroscopy since 2002 | | | | |
| * Working on optical bistability in semiconductor devices since 2002 | | | | |
| * Working on thin films preparation, devices and applications since 2003 | | | | |
| * Working on heterojunction photodetectors and solar cells since 2003 | | | | |
| * Working on plasma-assisted etching of semiconductors since 2006 | | | | |
| * Working on nano films fabrication by magnetron sputtering, since 2013 | | | | |
| * Working on spectroscopy of some organic dyes used in dye-sensitized solar cells, since 2014 | | | | |
| * Working on photolithography of transparent non-metallic substrates for biomedical applications, 2015 | | | | |
| * Working on fabrication and characterization of microchannel fluidic devices, 2015 | | | | |
|  | | | | |
| ***Books and Chapters:*** | | | | |
| * Author of **“Standards of Quality, Performance and Assessment in Higher Education Institutions”**, 1st edition, in Arabic, Dar Albedayah Publishing, Amman, Jordan, 2012 | | | | |
| * Author of **“Modern Administrative Leadership in Development Strategy”**, 1st edition, in Arabic, Dar Albedayah Prublishing, Amman, Jordan, 2013 | | | | |
| * Coauthor of **"Laser in Communications"**, in Arabic, Dar Albedayah Prublishing, Amman, Jordan, 2013 | | | | |
| * Author of **"Fabrication of Continuous Wave Laser Cutter"**, 1st edition, in Arabic, Book House Publishing Co., Al-Ain, UAE, 2014 | | | | |
| * Author of **"Skills for Time Management and Organization"**, 1st edition, in Arabic, Book House Publishing Co., Al-Ain, UAE, 2014 | | | | |
| * Author of **"Fundamentals of Astronomy for Science Students"**, 1st edition, in Arabic, Book House Publishing Co., Al-Ain, UAE, 2015 | | | | |
|  | | | | |

**Publications in scientific journals (in English)**

1. **Simple arrangement to achieve SHG using a 635nm semiconductor laser**

*Engineering Journal of Qatar University, Vol.18, 2005, 149-156*

Oday A. Hamadi

1. **Employment some parameters to enhance laser drilling of aluminum**

*J. of Sci. and Technol., Sultan Qaboos University (OMAN), Vol. 10, 2005, 93-100*

Oday A. Hamadi

1. **Properties of Silicon Carbide Thin Films Deposited by Vacuum Thermal Evaporation**

*J. of Semicond. Technol. and Sci. (KOREA), Vol. 5, No. 3, 2005, 69-73*

**Oday A. Hamadi**, Khaled Z. Yahiya, Oday N.S. Jassim

1. **Characterization of Si p-n Photodetectors Produced by Laser-Induced Diffusion**

*Inter. J. of Modern Physics (IJMPB) (ENGLAND), Vol. 19, No. 31, 2005, 4619-4628*

Raid A. Ismail, Omar A. Abdulrazaq, Aseel A. Hadi and **Oday Ata Hamadi**

1. **Optical and electrical properties of selenium-antimony heterojunction formed on silicon substrate**

*Sharjah University Journal of Pure and Applied Sciences (UoS J PAS), (UAE), Vol. 4, No. 2, 2007, 1-11*

**Oday A. Hamadi**, Khaled Z. Yahiya

1. **Full Characterization at 904nm of Si p-n Junction Photodetectors Produced by LID Technique**

*European Physics Journal: Appl. Phys. (EPJAP) (FRANCE), Vol. 38, 2007, 197-201*

Raid A. Ismail, Omar A. Abdulrazaq, Aseel A. Hadi, **Oday Ata Hamadi**

1. **Characteristics of CdO-Si Heterostructure Produced by Plasma-Induced Bonding Technique**

*Proc. IMechE, Part L, Journal of Materials: Design and Applications (JMDA) (ENGLAND), Vol. 222, 2008, 65-71, DOI: 10.1243/14644207JMDA56.*

Oday A. Hamadi

1. **Plasma-Induced Etching of Silicon Surfaces**

*Bulgarian Journal of Physics (BJP) (BULGARIA), Vol. 35, No. 3, 2008, 191-197*

Afnan K. Yousif, **Oday A. Hamadi**

1. **Magnetic Field and Temperature Dependent Measurements of Hall Coefficient in Thermal Evaporated Tin-Doped Cadmium Oxide Thin Films**

*Bulgarian Journal of Physics (BJP) (BULGARIA), Vol. 37, No. 4, 2010, 223-231*

**Oday A. Hamadi,** Nagham J. Shakir, Fatin H. Hussain

1. **Operation Characteristics of a Closed-Field Unbalanced Dual-Magnetrons Plasma Sputtering System**

*Bulgarian Journal of Physics (BJP) (BULGARIA), Vol. 41, No. 1, 2014, 24-33*

**Oday A. Hammadi,** Mohammed K. Khalaf, Firas J. Kadhim, Bahaa T. Chiad

1. **Photovoltaic Properties of Thermally-Grown Selenium-Doped Silicon Photodiodes for Infrared Detection Applications**

*Photonic Sensors (Springer), Vol. 5, No. 2, March 2015, 152-158, DOI: 10.1007/s13320-015-0241-4*

Oday A. Hammadi

1. **Silicon Nitride Nanostructures Prepared by Reactive Sputtering Using Closed-Field Unbalanced Dual Magnetrons**

*Proc. IMechE, Part L, Journal of Materials: Design and Applications (JMDA) (ENGLAND), Accepted for publication: July 2015, First published: 17 August 2015, DOI: 10.1177/1464420715601151.*

**Oday A. Hammadi,** Mohammed K. Khalaf, Firas J. Kadhim

1. **Fabrication of UV Photodetector from Nickel Oxide Nanoparticles Deposited on Silicon Substrate by Closed-Field Unbalanced Dual Magnetron Sputtering Techniques**

*Optical and Quantum Electronics (OQEL), Springer, 47(12) (2015) pp. 3805-3813, DOI: 10.1007/s11082-015-0247-6.*

**Oday A. Hammadi**, Mohammed K. Khalaf, Firas J. Kadhim

1. **Fabrication and Characterization of UV Photodetectors Based on Silicon Nitride Nanostructures Prepared by Magnetron Sputtering**

*Proc. IMechE, Part N, Journal of Nanomaterials, Nanoengineering and Nanosystems (JNNN), 230(1) (2016) 32-36, DOI: 10.1177/1740349915610600*

**Oday A. Hammadi**, Mohammed K. Khalaf, Firas J. Kadhim

1. **Electrical and spectral characterization of CdS/Si heterojunction prepared by plasma-induced bonding**

*Optical and Quantum Electronics (OQEL), Springer, 48(8) (2016) pp. 375-, DOI: 10.1007/s11082-016-0647-2*

**Oday A. Hammadi**, Noor E. Naji

**Articles published in Iraqi scientific journals Iraq (in Arabic)**

1. **Design, construction and operation of CW CO2 laser**

*Journal of Iraqi Atomic Energy Commission, Vol. 2, No. 2, 2000, 6-10*

1. **Characteristics of energy transfer in mini-TEA CO2 laser system**

*Journal of Engineering and Technology, Vol. 20, No. 2, 2001, 612-617*

1. **Effect of temperature on the electrical characteristics of Ni-Si structure**

*Journal of Engineering and Technology, Vol. 21, No. 1, 2002, 1-8*

1. **Characteristics of Cr diffusion in p-type silicon**

*Journal of Engineering and Technology, Vol. 21, No. 2, 2002, 55-59*

1. **Effect of temperature on the characteristics of pulsed dye laser**

*Almustansiriya Journal of Science, Vol. 12, No. 5, 2001, 135-141*

1. **Determination of chromium diffusivity in boron-doped silicon**

*Almustansiriya Journal of Science, Vol. 12, No. 5, 2001, 247-253*

1. **Ohmic characteristics of Ni/Si contact produced by laser-induced diffusion technique**

*Almustansiriya Journal of Science, Vol. 12, No. 6, 2001, 475-483*

1. **Analysis of optical bistability role in semiconductor laser amplifier performance**

*Journal of Engineering and Technology, Vol. 21, No. 7, 2002, 181-186*

1. **Analysis of using plasma channel to guide laser beam**

*Iraqi Journal of Physics, Vol. 2, No. 1, 2003, 1-6*

1. **Construction of single-mode 60W CW CO2 laser**

*Journal of Engineering and Technology, Vol. 22, No. 1, 2003, 1-8*

1. **Analytical study of some design considerations to develop a homemade Nd:YAG laser system**

*Journal of Engineering and Technology, Vol. 22, No. 1, 2003, 28-35*

1. **Cutting of fiber-reinforced plastics by CW CO2 laser**

*Iraqi Journal of Physics, Vol. 2, No. 2, 2003, 8-14*

1. **Preparation of ZnO thin films using DC sputtering method**

*Iraqi Journal of Physics, Vol. 2, No. 3, 2003, 1-6*

1. **Analytical study of temperature and carrier concentration effects on the nonlinearities in NIR semiconductor lasers**

*Journal of Engineering and Technology, Vol. 24, No. 4, 2005, 148-160*

**Articles published in Iraqi scientific journals Iraq (in English)**

1. **Heat-annealed enhanced-diffusion of silver in gallium arsenide**

*Journal of Education, Al-Mustansiriya University, Vol. 3, 2001, 35-44*

**Oday A. Hamadi**, Rania A. Markub, Aseel A. K. Hadi

1. **Cutting of Ceramic by CW CO2 Laser**

*Al-Mustansiriya Journal of Science, Vol. 12, No. 6, 2001, 307-309*

**Uday A. Hamadi**, Mohammad A.K. Ahmed, Rania A. Markub

1. **Design and performance evaluation of time discrete modulation system**

*Al-Mansour Journal, Vol. 5, 2002, 234-242*

**Oday A. Hamadi**, Aseel A. K. Hadi, Rania A. Markub

1. **Effect of gas mixture on output characteristics of a CW CO2 laser**

*Iraqi Journal of Laser, Vol. 1, No. 1, 2003, 1-6*

Najem A. K. Al-Rubaiey, **Oday A. Hamadi**, Dayah N. Raouf

1. **HAZ extent analysis in fiber-reinforced plastic grooving by laser**

*Iraqi Journal of Applied Physics (IJAP), Vol. 1, No. 1, 2005, 1-7*

Oday A. Hamadi

1. **Induced variation of focal length of the lens stimulated in Nd:YAG laser crystal with optical power pumping**

*Iraqi Journal of Laser, Vol. 2, 2005*

Oday A. Hamadi

1. **Analytical Modelling to Enhance Electric Field Measurement Using Optical Fiber Sensor**

*Journal of Engineering and Technology, Vol. 26, 2006*

**Oday A. Hamadi**, Selma M. Hussain

1. **Features of spot-matrix surface hardening of low-carbon steel using pulsed laser**

*Journal of Engineering and Technology, Vol. 25, No. 2, 2007*

Khawla S. Khashan, **Oday A. Hamadi**

1. **Normalized Characteristics of Laser-Induced Diffusion of Arsenic Dopants in Silicon**

*Journal of Engineering and Technology, Vol. 27, No. 4, 2007*

**Oday A. Hamadi**, Salma M. Hussain, Aseel A. Hadi, Rana O. Mahdi

1. **Measurement of thermooptic coefficient of semiconductors by single-beam scanning technique**

*Journal of Engineering and Technology, Vol. 27, No. 5, 2007*

Ban A. M. Badr, **Oday A. Hamadi**, Afnan K. Yousif

1. **Electrical Characteristics of Silicon p-n Junction Solar Cells Produced by Plasma-Assisted Matrix Etching Technique**

*Journal of Engineering and Technology, Vol. 28, 2008*

**Oday A. Hamadi**, Ban A.M. Bader, Afnan K. Yousif

1. **Modeling of the Preheating Effect on Keyhole Laser Welding Efficiency**

*Iraqi Journal of Applied Physics Letters (IJAPLett), Vol. 1, No. 1, 2008, 10-15*

**Oday A. Hamadi,** Khawla S. Khashan

1. **Effect of Annealing on the Electrical Characteristics of CdO-Si Heterostructure Produced by Plasma-Induced Bonding Technique**

*Iraqi Journal of Applied Physics (IJAP), Vol. 4, No. 3, 2008, 34-37*

Oday A. Hamadi

1. **The Fundamentals of Plasma-Assisted CVD Technique Employed in Thin Films Production**

*Iraqi Journal of Applied Physics Letters (IJAPLett), Vol. 1, No. 2, 2008, 3-8*

Oday A. Hamadi

1. **Optoelectronic Characteristics of As-doped Silicon Photodetectors Produced by LID Technique**

*Iraqi Journal of Applied Physics Letters (IJAPLett), Vol. 1, No. 2, 2008, 23-26*

Aseel A.K. Hadi, **Oday A. Hamadi**

1. **Effect of Self-Absorption on the Output Power of CW CO2 Laser**

*Iraqi Journal of Applied Physics Letters (IJAPLett), Vol. 2, No. 1, 2009, 31-34*

**Oday A. Hamadi,** Dayah N. Raouf, Najem A.-K. Alrubaiey

1. **Profiling of Antimony Diffusivity in Silicon Substrates using Laser-Induced Diffusion Technique**

*Iraqi Journal of Applied Physics Letters (IJAPLett), Vol. 3, No. 1, 2010, 23-26*

Oday A. Hamadi

1. **Temperature Dependencies of Refractive Index and Optical Elasticity Coefficient on Lens Induced in Nd:YAG Crystal**

*Iraqi Journal of Applied Physics (IJAP), Vol. 8, No. 1, 2012, 35-41*

**Oday A. Hammadi**, Mahdi S. Edan

1. **Effect of Acidic Environment on the Spectral Properties of Hibiscus sabdariffa Organic Dye used in Dye-Sensitized Solar Cells**

*Iraqi Journal of Applied Physics (IJAP), Vol. 10, No. 2, 2014, 27-31*

**Oday A. Hammadi,** Noor I. Naji

1. **Effect of Adding Nitrogen to the Gas Mixture on Plasma Characteristics of a Closed-Field Unbalanced DC Magnetron Sputtering System**

*Iraqi Journal of Applied Physics (IJAP), Vol. 10, No. 1, 2014, 27-31*

Mohammed K. Khalaf, Firas J. Kadhim, **Oday A. Hammadi**