Curriculum Vitae

Husam Mahmoud El-Nasser

Work Address:
Department of Physics
Al al-Bayt University
Mafraq
Jordan
Tel: +962 2 6297000 ext. 2169
Fax: +962 2 6297034
E-mail: hnasser@aabu.edu.jo
Google Scholar

Home address:
Prince Rashed Province
P.O.Box 344
Amman 11831
Jordan

Citizenship Jordanian

Languages Arabic, English, Russian, and German (Basic)

Status Married

Education

Ph.D. (Physics- Optics)
1990 - 1993 Belarusian State University Minsk, Belarus
Spectroscopic Properties of Polymer Structures of Uranyl Compounds

Diploma (Physics- Optics)
1985 -1990 Belarusian State University Minsk, Belarus
Temperature Dependence in Raman Spectra of Rochelle Salt

Graduate Student
1990 -1993 Department of laser physics and spectroscopy, Faculty of Physics, Belarusian State University

Experience

Assistant Professor
1994 -1996 Misurata University Libya
1996 -2001 Applied Science University Jordan
2002 – 24/10/2011 Al al-Bayt University Jordan

Associate Professor

25/10/2011 - 06/02/2018 Al al-Bayt University Jordan

Professor

07/02/2018 Al al-Bayt University Jordan

Visiting Researcher: Sabbatical leave

2013/2014 RWTH Aachen University Germany

Administrative Work

- Head of Department of Physics, Al al-Bayt University, 2003-2005.
- Dean Assistant, Deanship of Academic Research, Al al-Bayt University, 2005- 2006.
- Deputy Dean of Academic Research, Al al-Bayt University, 2006- 2012.
- Al al-Bayt University Council Member, 2005-2007.
- Astronomy and Astro Sciences Institute Council Member, 2005-2006.
- Academic Research Council Member, Al al-Bayt University, 2005-2007.
- Al-Manara Journal Editorial Board Member, Al al-Bayt University, 2006- 2007.
- European Union Grants Laisson Officer, Jordan, Higher Council of Science and Technology- Support to Reseaech and Technoligical Development (SRTD) project, 2007-2009.
- Achievement Exam Committee Member, Jordan, Ministry of Higher Education, 2005-2006.
- Faculty Development Council Member, Jordan, Al al-Bayt University, 2008-2009.
- Al-Manara Journal Editorial Secretary, Al al-Bayt University, 2010-2012.
- Vice Chairman of the Central Tenders Committee, Al al-Bayt University, 2010-2012.

Research

My current research focuses on using the variable angle spectroscopic ellipsometer (VASE lab at Al al-Bayt University) to determine thin films optical properties. I am also interested in investigation vibrational spectra of materials using Raman, IR spectroscopy. During my sabbatical leave in Germany I have investigated the structural and optical properties of CoPc organic thin films.

Taught Subjects

a) Undergraduate Program	
General Physics (101, 102, 103)	Electronics
Practical Physics (Labs)	Electronics (Lab)
Alternating Current Circuits	Digital Electronics
Solid State Physics	Optics
Modern Physics	Modern Optics and Laser Physics
Waves and Vibrations	Classical Mechanics
Statistical Physics	Materials Science
b) Graduate Program	
Methodology of Scientific Research in Physics	

Community Service

1. Jordan´s World Heritage Properties, Alexander von Humboldt Club, Cologne, Germany, 26/11/2013.
2. Educational reforms in Jordan: What is still needed? Friedrich Neumann Foundation and Jordanian Club of Humboldt Fellows, 30 Nov. 2014, Amman-Jordan.
3. Young Syrian Refugees in Jordan Educational Systems: Challenges and Policies, Friedrich Neumann, 18 May 2015, Amman-Jordan.
4. Foundation and Jordanian Club of Humboldt Fellows, 16 Apr. 2015, Amman, Jordan.
5. Jordanian German meeting of integrated solid waste management in Amman on 24 Nov. 2016.
6. Jordanian Life Sciences for Sustainable Development, 29 Apr. 2017, Jordanian Club of Humboldt Fellows Mafraq-Jordan.

Grants

1. Ph.D Scholarship, Belarussian State University, 1990.
2. DFG grant: "Structural and optical properties of cobalt phthalocyanine thin films", Physics Institute, Organic Thin Films Group, 1/06/2011- 29/08/2011, RWTH Aachen University, Germany.
3. Spectroscopic properties for the perylene dye doped polymethylmethacrylate (PMMA) thin films, Al al-Bayt University (2015)

Training

1. Faculty Development Workshop- Blackboard Software, Al al-Bayt University, 2005.
2. WVASE Data Analysis Course, University of Texas & J.A.Woollam Co., San Antonio, Texas, USA, March 2009.
3. Liaison Officer Training, Higher Council of Science and Technology- Support to Reseaech and Technoligical Development (SRTD) project, Amman, Jordan, April 2009.
4. Framework Program Internship, Brussels Enterprise Agency**,** Brussel, Belgium**,** June 2009.
5. European Framework Program (FP 7): Contract Negotiation and Finance, Higher Council of Science and Technology- Support to Reseaech and Technoligical Development (SRTD) project, Amman, Jordan, December, 2009.

6. European Framework Program (FP 7): Proposals Evaluation, Higher Council of Science and Technology- Support to Reseaech and Technoligical Development (SRTD) project, Amman, Jordan, December, 2009.

Professional memberships

- Jordanian Association for Physicists

Theses supervision,

1. Spectroscopic properties of PMMA/BDK/Azo dye storage systems using spectroscopic ellipsometry, Master Thesis, Al al-Bayt University, (May, 2005).

2. A study of molecular weight effect on spectroscopic properties of thin films of PMMA using spectroscopic ellipsometry**,** Al al-Bayt University, Master Thesis (May, 2006).

3. Structural and optical properties of spin coated polymeric-based(PMMA/BDK/AZO-DYE) thin films fabricated via photochemical process, Jordan University for Science and Technology, Master Thesis (August, 2006).

4. A study of optical properties of PMMA iodine mixture thin films using spectroscopic ellipsometry**,** Al al-Bayt University**,** Master Thesis (December, 2006).

5. Spectroscopic properties of PMMA/BDK/Ethyl red systems using spectroscopic ellipsometry**,** Al al-Bayt University**,** Master Thesis (January, 2008).

6. Study of optical properties of antimony sulfoiodide SbSI thin films**,** Jordan University**,** Master Thesis (May, 2008).

7. Ellipsometric properties of poly methyl methacrylate (PMMA) thin films**,** Al al-Bayt University**,** Master Thesis (May, 2009).

8. Structural and optical properties of metal-doped CDs thin films prepared by closed space sublimation (CSS) technique, Al al-Bayt University**,** Master Thesis (May, 2013).

9. A study of mathematical models used for spectroscopic ellipsometry data analysis, Al al-Bayt University, Master Thesis (May, 2019).

Conferences, Workshops and Meetings:

1. "Spectroscopic Properties of Bisulfate Uranyl Compounds". International Conference on Vibrational Spectroscopy. Belarus Academy of Science. Minsk – Belarus, October 1993.

2. "Vibrational and Electronic Vibrational Properties of Uranyl Sulfates, Study by Infrared, Raman and Low Temperature Photoluminescence Spectra". Third Conference on Physics of Condensed Matter. University of Jordan. Amman – Jordan, April 1994.

3. "Adaptation of Argon Laser to Study Phase Transitions in Rochell Salt". Second International Conference on Lasers in Science and Technology. University of Jordan. Amman – Jordan, August 1994.

4. Second Workshop in Physics – Properties and Applications of Thin Films – Al al-Bayt University. Mafraq – Jordan, May 1999.

5. "Absorption and optical activity of crystals of salts of sulfuric and dithionic acid", the International Scientific Conference Optics of Crystals, Mozyr, Belarus, September 2000.

6. Workshop in" Fabrication and Characterization of Porous Silicon". Higher Council of Science and Technology. Amman 15/01/2004.

7. 10^{th} Jordanian Science Week" The Technology of Advanced Materials and its role in Jordanian economy" Higher Council of Science and Technology. Amman 19-21/9/2004.

8. "Scientific Research: Reality, Constraints, and Requirements for the Advancement". Scientific Research and Technological Development in the Arab World, Damascus, Syria, 11-14/11/2006.

9. Research Connection-2009, Prague, Czech Republic, 6-9/05/2009.

10. Successful Research and Development in Europe: European Networking Event, Dusseldorf, Germany, 4-5/03/2010.
11. ENPI CBC MED workshop from the 19^{th} to 20^{th} of September 2010, Somaya University for Technology, Amman, Jordan.

12. OPV Production Technology, ORGANEXT Seminar, RWTH Aachen University, June 22, 2011, Aachen, Germany.

13. EU-JordanNet (Environment Workshop; Higher Council for Science and Technology, Amman 25 - 27 July/ 2011.

14. International Conference on Mediterranean Countries and EU Opportunities 22nd – 23rd October 2012 / Amman – Jordan.

15. Educational reforms in Jordan: What is still needed? Friedrich Neumann Foundation and Jordanian Club of Humboldt Fellows, 30 Nov. 2014, Amman-Jordan.

16. First Swedish-Jordanian Workshop on Science and Research using Synchrotron Radiation, 25-29 Jan. 2015, Hashemite University, Jordan.

17. Eighth International Petra School of Physics,11-14 April, 2016, University of Jordan, Amman, Jordan.

18. 14th SESAME Users Meeting 3rd – 4th December, 2016 Amman, Jordan.

19. 4th International Symposium on Dielectric Materials and Applications, 2-4 May, 2019, University of Jordan, Amman-Jordan.

Publications

1. M Serhan, M Abusini, Ahmed Al-Jamel, **H El-Nasser**, Eqab M Rabei, Quantization of the damped harmonic oscillator, *Journal of Mathematical Physics*, 59, 8, 082105, 2018.
2. Sukru Karatas ¸ **H.M.El-Nasser**, Ahmed. A. Al-Ghamdi, F. Yakuphanoglu, High Photoresponsivity Ru-doped ZnO/p-Si Heterojunction Diodes by Sol-gel Method, *Silicon*, 10, 2, 651-658, 2018.
3. **H.M.El-Nasser,** Morphology and spectroscopic ellipsometry of PMMA thin films, *Applied Physics Research*, 9, 2, 5-11, 2017.
4. Jamal Talla, Majid Abusini, Khaled Khazaeleh, Rami Omari, Mohammed Serhan, **Husam El-Nasser**, Tuning electronic properties and band gap engineering of defective carbon nanotube bundles: First principles calculations, *Materials Express*, 7, 6, 516-522, 2017.
5. **H. M. El-Nasser**, K. Mensah-Erakwa, Norah Al-Senany, Ahmad Al-Ghamdi, R.K.Gupta, W.A.Farooq, F. El-Tantawy, F. Yakupkhanoglu, A functional material based heterojunction diode, *Silicon*, 1-10, 2017.
6. K.V. Shportko, R. Rueckamp, T.V. Shoukavaya, V.M. Trukhan, **H.M. El-Nasser**, E.F. Venger Effect of the low temperatures on the Raman active vibrational modes in ZnP_2 and CdP_2, *Vibrational Spectroscopy*, 87, 173-181, 2016.

7. Ahmad A. Ahmad, Ahmad M Alsaad, Borhan A Albiss, M-Ali H Al- Akhras, **H.M El-Nasser**, Issam A Qattan, Optical and structural properties of sputter deposited ZnO thin films in relevance to post annealing and substrate temperatures, *Thin Solid Films*, 133-142, 2016.

8. K. Shportko, T. Barlas, E. Venger, **H. El-Nasser**, V. Ponomarenko, Influence of the temperature on the dispersion of the surface polaritons in Zn_3P_2 – material for the photovoltaic applications, *Current Applied Physics*, 16, 8-11, 2016.

9. **Husam M. El-Nasser**, Impact of annealing on structural and optical properties of CoPc thin films, *Materials Science Research India*, 12, 1, 15-21, 2015.

10. A. A. Ahmad, A. M. Alsaad, B. A. Albiss, M-Ali Al-Akhras, **H.M.El-Nasser**, I. A. Qattan, The effect of substrate temperature on structural and optical properties of D.C, sputtered ZnO thin films, *Physica B*, 470-471, 21-32, 2015.

11. H. Aydin. **H.M.El-Nasser**, C.Aydin, Ahmad Al-Ghamdi, F. Yakuphanoglu, Synthesis and characterizations of nanostructured undoped and Sn-doped ZnO thin films via sol gel approach, *Applied Surface Science*, 350, 30 , 109-114, 2015.

12. Bilal Aref, **H.M.El-Nasser**, A. Dere, Ahmad A. Al-Ghamdi, S. Bin-Omran, Farid El-Tantawy, F. Yakupkhanoglu, Optical properties of $Zn_{1-z}Al_xO$:NiO thin films prepared by sol gel method, *Journal of Sol Gel Science and Technology*, 76, 378-385, 2015.

13. Z. Serbetci, **H.M.El-Nasser**, F. Yakupkhanoglu, Photoluminescence and refractive index dispersion properties of ZnO nanofibers grown by sol gel method, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 86, 405-409, 2012.

14. **H.M.El-Nasser**, Effect of methyl red acidity and UV illumination on absorption coefficient of MR/PVA thin films, *Physica B*, 406, 1940-1943, 2011.

15. C. Aydna, **H.M.El-Nasser**, F. Yakuphanoglu, I. S. Yahiaa, M. Aksoy, Nanopowder synthesis of aluminium doped cadmium oxide via sol- gel calcinations processing, *Journal of Alloys and Compounds*, 509, 854-858, 2011.

16. **H. El-Nasser**, F. Yakuphanoglu, A. Mahasneh, A. Ahmad , Structural and optical properties of evaporated Ge/Al bilayer bilayer thin films, *International Journal of Nanoelectronics and Materials*, 4, 3, 135-143, 2011.

17. **Husam M. El-Nasser**, Osama D. Ali, Effect of molecular weight and UV illumination on optical constants of PMMA thin films, *Iranian Polymer Journal*, 19, 1, 57-63, 2010.

18. **Husam M. El-Nasser**, Refractive Index Investigation of PMMA/Ethyl Orange Thin Films Using Spectroscopic Ellipsometry, (2009), *Abhath Al-Yarmouk Journal, Pure Science and Engineering Series*, 18, 2, 117-126, 2009.

19. A. Ahmad, S. Saq'an, B. Lahlouh , M. Hassan, A. Alsaad, **H. El-Nasser** , Ellipsometric Characterization for PbI_2 Thin Film on Glass, *Physica B* ,404, 1-6, 2009.

20. M. S. Bawa'aneh, **H.M. EL-Nasser**, Ghada Assayed, S. Alyones, A. M. Alsmadi, S. Al-Awfi and M. Al-Sughayer, Stimulated Raman Scattering of Extraordinary Electromagnetic Waves in Weakely Magnetized Plasma, *Progress In Electromagnetics Research Symposium PIERS Proceedings*, Cambridge, USA, 2, 294-300, 2008.

21. M. S. Bawa'aneh, Saud Al-Awfi, **Husam El-Nasser**,Temporal Growth of Filamentation Instability Induced by Large Amplitude Laser Radiation, *Abhath Al-Yarmouk Journal, Pure Science and Engineering Series*, 17, 1, 51-62, 2008.

22. **Husam M. El-Nasser**, Tahaa Khader, Basem Ali ,Spectroscopic Ellipsometry of Azo Dye Doped Polymer Thin Films, *Dirasat (University of Jordan)*, 33, 2, 187-194, 2006.

23. V. V. Syt'ko, E. N. Kabaeva, and **H. El-Nasser** ,Correlation between Uranium-Oxygen and Uranium- Ligand Interatomic Distances and Stretching Vibration Frequencies in Uranyl Compounds, *Russian Journal of Inorganic Chemistry*, 46, 7, 1136-1141, 2001.

24. **H. El-Nasser**,"Spectroscopic Properties of Anhydrous Disulfate Uranilates of Alkali Metals", *Derasat(Unversity of Jordan)*, 27, 1, 1-9, 2000.

25. **H.M. El-Nasser.** M.R.Posledovich, Spectroscopic properties of disulfate uranyl compounds, Vestnik BSU, 24, 1, 38-45, 1993.