

Assistant Professor Dr. Adel H. Omran ALKhayatt



University of Kufa

Faculty of Science

Department of Physics

Najaf Governorate , Iraq

Tel: +964(0)7801170668

Email: adilh.alkhayat@uokufa.edu.iq

B.Ch. from Salah Aldeen University(1982) , M.Sc(1998) and PhD(2005) from Babylon University and Al-Mustansiriyah University(Republic of Iraq) in solid state physics and Solid state electronics . Assistant Prof. in Physics Department / Faculty of Sciences . Member of the Scientific Committee in the physics department . Advisor of Solid State Physics and thin-film materials Laboratory . Member of the Scientific Committee of Nanotechnology unit / Faculty of Engineering and a member of the Supreme Committee research to standardize the curriculum at the University of Kufa and a participating teams to the center of scientific progress for the University of Kufa. Editor Manager of the journal of kufa physics and ISOR Applied Physics. Reviewer in many international journals in the Elsevier and Science Direct and Springer Publishers (Materials Letters , Applied Physics A, Optical and Quantum Electronics (OQEL). There are many manuscripts published in international journals with high impact factor such as Materials Letters , Materials Science in Semiconductors Processing , Optik , ISOR applied physics and etc.

Research Interests :

- 1- Thin films
- 2- Materials Properties
- 3- Semiconductor Devices
- 4- Nano Science and Nano Technology.
- 5- Nano particles and nanocomposites materials.

Teaching Interests:

- 1- Solid State Physics
- 2- NanoScience and Nnotechnology
- 3- Analog Electronics
- 4- Physical Optics
- 5- Electrical and Electronics Technology
- 6- Statistical Physics
- 7- Classical Mechanics
- 8- Solid state electronic

Selected Publications:

1- Oday A. Abbas , Adel H.Omran and Abbas H. Rahim ,” The Effect of Different Wavelengths on Porous Silicon Formation Process”, **Journal of educational college, Special Issue for 2nd Scientific Conference of Educational college 9-10 Mar. 2008, Vol.3, Pure Science and English Languge , 204-207.**

.....
2- Adel H.Omran ,” Optical characteristics of CdS thin film on glass formed by Chemical spray pyrolysis”, **journal of al-qadisiyah for pure science, Vol.14, No.2 , 2009 ,76-88.**

3- Abas H. Abu Nasryah, Adel h.Omran Alkhayatt , Ody Arkan Abas, Studying Vibrational Frequencies of the Schiff's Base Liquid CrystalMolecule by Using Mindo/3-Forces Program.

Journal of Al Mustansiriyah Science, Vol.19 , No.9,2008, 32-43.

4- Adel H.Omran Alkhayatt, Ehsan Muhsen Abbas, Yaseen Najum Obaid, Atyaff Subhy AlRuass, Studying the capacitance – voltage (C-V) characteristics for the metal- oxide-semiconductor field- effect transistor MOSFET fabricated by photolithography technique, **Journal of Kufa Physics, Vol.1 No.1 , A Special Issue for the 2nd Conference of Pure & Applied Sciences (11-12) March ,2009.**

5- Irradiation effect on the structural and optical properties of $\text{CdO}_x\text{CuO}_{1-x}$ thin films, **A Special Issue for the 1st Kufa Conference of Physics (6-7)October , 2010 , Arabic Part (311-323).**

.....
6- Adel H.Omran Alkhayatt , E.M.Abass , Y.N.Obaid, A.S.Al-Rowass,

Naeema Hadi Ali, The development and studies the current – voltage (I-V) characteristics for the metal- oxide-semiconductor field- effect transistor MOSFET, **JOURNAL OF KUFA – PHYSICS Vol.3 NO.1(2011).**

7- Construction of Chemical spray pyrolysis system for preparing of thin solid films.**JOURNAL OF KUFA – PHYSICS Vol.2 NO.2 (2010).**

8- - Structural and Optical characterization of Nanocrystalline SnO₂ thin film prepared by spray pyrolysis technique. Adel H. Omran Al-Khayatt Shymaa K. Hussian , **JOURNALS OF KUFA – PHYSICS Vol.5 No.1 (2013) Adel H. Al-khayatt, Shymaa K. Hussian.**

9- Annealing Effect on The Structural and Optical Properties of CuS Thin Film Prepared By Chemical Bath Deposition (CBD), Adel H. Omran Al-khayatt ,Mustafa D. Jaafer ,**JOURNAL OF KUFA – PHYSICS Vol.5 No.1 (2013) .**

10- 11 - Adel H. Omran Al-khayatt , Mustafa D. Jaafer, Characteristics of Nanocrystalline ZnS thin films grown on glass with different Zn ion concentrations by CBD technique ,IOSR Journal of Applied Physics (IOSR-JAP). Volume 6, Issue 1 Ver. III (Feb. 2014), PP 27-35 www.iosrjournals.org.

11- S.M. Thahab , Adel H. Omran Alkhayat , SalahM.Saleh, ((Influence of substrate type on the structural ,optical and electrical propertiesofCd_xZn_{1-x}S MSM thin films prepared by Spray Pyrolysis method)) , **Materials Science in Semiconductor Processing , Vol. 26 , 2014, 49–54.**

12- S.M. Thahab, AdelH.OmranAlkhayat , SalahM.Saleh, The optical properties of Cd_xZn_{1-x}S thin films on glass substrate prepared by spray pyrolysis method., **Optik, 125, (2014), 5112–5115.**

13- Annealing Effect on the Structural and Optical Properties of Sol-

Gel Deposited Nanocrystalline CdO Thin Films., Advances in Physics Theories and Applications www.iiste.org ,Vol.34, 2014.

14. The optical Properties of Fe₂O₃ Thin Film Prepared By Chemical spray pyrolysis Deposition (CSP)

JOURNAL OF KUFA – PHYSICS Vol.6,No.2 (2014) ,(16-23) ,

Saadi. A. J. AL- Dahaan , Adel. H. Omran Al-khayatt , Mustafa.K. Salman.

15. Adel H. Omran Alkhayat , S.M.Thahab and Salah M. Saleh , " Study the Structural and Morphological Properties of Cd_xZn_{1-x}S Thin Films prepared by Chemical Spray Pyrolysis Technique (CSP)",. JOURNAL OF KUFA – PHYSICS Vol.6,No.2 (2014) ,(30-37) .

16. Adel H. Omran Alkhayatt¹, Shymaa K. Hussian, Fluorine Highly doped Nanocrystalline SnO₂ Thin Films Prepared by SPD Technique, **Materials Letters** , **155,109-113, 2015.**

17 - Adel H.Omran Alkhayatt , S. M.Thahab , Inass Abdulah Zgair, “Nanocrystalline CuFeO₂ Delafossite Thin Films Prepared on Quartz by CSP Method” , Applied Numerical Mathematics and Scientific Computation,) Proceedings of the 1st International Conference on Theoretical and Applied Physics (TAP 2014)

Athens, Greece , November 28-30, 2014.

18. S.M. Thahab , Adel H.Omran Alkhayatt , Inass Abdulah Zgair , “Influences of post-annealing temperature on the structural and electrical properties of mixed oxides (CuFeO₂ and CuFe₂O₄) thin films prepared by spray pyrolysis technique” , **Materials Science in Semiconductor Processing** ,41,(2016),436–440.

19. Adel H. Omran Alkhayatta, Sabah M. Thahabb, Inass Abdulah Zgair, ", Structure, surface morphology and optical properties of post-annealed delafossite CuFeO₂thin films", Optik, 127,(2016), 3745–3749.

20. ADEL H. OMRAN ALKHAYATT, GHOFAN MOHAMMED HUSSEIN AL-HADDAD, "SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF SOL-GEL DEPOSITED

FLUORINE DOPED NANOCRYSTALLINE CdS THIN FILMS", International Journal of Research in Applied, Natural and Social Sciences, Vol. 4, Issue 5, May 2016, 123-134.

21. Mahdya A. Yaser, Adel H. Omran Alkhayatt, Nibras F. Ali, Einas R. Wadaa, "The Effect of Magnetic Field on Helium Plasma Characteristics of Discharge Tube", JOURNAL OF KUFA – PHYSICS, Vol.8, No.1, 34-40 ,(2016).

22. Saleem Azara Hussain, Adel H. Omran A; lkhayatt, Eqbal Abduljalil Mahdi "Effect of Co-Dopant on the Structural and Optical Properties of Nanocrystalline ZrO₂ Thin Films Prepared By Spray Pyrolysis Technique" IOSR Journal of Applied Physics (IOSR-JAP) .Volume 8, Issue 5 Ver. I (Sep - Oct. 2016), PP 44-49.

23. Adnan F. Hassan Adel H. Omran Alaa M. Mohamed Nibras F.Ali, Studying the Optical Properties of Epoxy Panel doped with Al-Anthedin Dye, JOURNAL OF KUFA – PHYSICS, Vol.9, No.1 (2017).

24. Adel H. Omran Alkhayatt and [Shymaa K.Hussian](#), Fluorine dopant concentration effect on the structural and optical properties of spray deposited nanocrystalline ZnO thin films, [Surfaces and Interfaces](#), Vol. 8, September 2017, Pages 176-181.

25. Eqbal Abduljalil Mahdi, Saleem Azara Hussain, Adel H.Omran Alkhayatt, Synthesis and study the structural properties of Nano crystalline pure and Co doped ZrO₂ thin films by chemical spray pyrolysis method, -الرابع العلمي المؤتمر وقائع / كربلاء جامعة / الصرفة للعلوم التربوية كلية / الاول الدولي 2017.

26. Adel H. Omran Alkhayatt, Structure, surface topography and optical characterization of Ag co – doped Cd_{1-x}Cu_xO nanostructure thin films, Journal of Kufa Physics, Vol.9, No.2, 41-55 (2017).

27. Adel H. Omran Alkhayatta*, Saleem Azara Hussainb, Eqbal Abduljalil Mahdib, An investigation in to the impact of Ti doping on the structural, optical and sensing properties of spray deposited nanocrystalline ZrO₂ thin films, Optik, Vol. 159, 305-314, 2018.

28. Adel H. Omran Alkhayatta, Asala H. Ali, Influence of Cycles Number and Time on the Structural, Surface Morphology and Some Optical Properties of CuO Nanostructure Thin Film Prepared by SILAR Method, sensors letters, 16, 1 (2018), 74-83.

Books:

1. Adel H.Omran Alkhayatt , Oday Ali Chichan Al-Rikaby and Imad A. Disher Al-Haydari, “Annealing Effect on characteristics of Sol-Gel Deposited CdO Thin Film” Lap Lambert Academic publishing, Germany , ISBN – 978-3-659-44648-1, 2015.
2. Adel H.Omran Alkhayatt, Ali H. Ressen Alazzawi , Zahraa Selam A. Al-Akaishi , "Physical Characteristics of (PVP-PEG) Polymer Blends", Lap Lambert Academic publishing, Germany , ISBN-978-3-659-91114-9, 2016.
3. Adel H.Omran Alkhayatt, Saadi. A.J. AL- Dahaan, Mustafa Kadhem Salman Alwan, " Structural and Optical Properties of Nanocrystalline Hematite Mineral", Lap Lambert Academic publishing, Germany , ISBN-978-3-659-97627-8.