Ministry of Higher Education
And Scientific Research
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Curriculum vitae

Full Name	Nabeel A. Bakr 		
Date of Birth	4/9/1960		
Social Status	Married		
E-mail	**nabeelalibakr@yahoo.com**		
Mobile	07733552561		
Academic Achievement	Ph.D.		
The scientific Title	Professor		
Scientific Department	Physics		
BSC	B.Sc. in Physics, Dept. of Physics, College of Science, University of Basrah, Basrah, IRAQ (93.47% graduation average).	1978	1982
Masters	M.Sc. in Solid State Physics, Dept. of Physics, College of Science, University of Basrah, Basrah, IRAQ	1982	1985
PhD	Ph.D. in Solid State Physics, Department of Physics, University of Pune, Pune, INDIA	2005	2010
Workplace	Dept. of Physics, College of Science, Diyala University, IRAQ		
Research areas	Different Techniques in Material Science and Thin Films Synthesis. Characterization Techniques (Raman, XRD, FTIR, UV-VISIBLE-NIR ….).		
Research's	**1.** Synthesis and study of the optical and structural properties of Au and Ag pulsed laser ablation (PLAL) technique, Digest Journal of Nanomaterials a Digest Journal of Nanomaterials and Biostructures, Vol. 16(4), pp. 1219-122		
	2. Fabrication of FTO/Li_2O/ZnO/p-PSi/Al solar cell by chemical precipitation of Ovonic Research, Vol. 17(4), pp. 395-403, **(2021)**.		
	3. Synthesis and Characterization of Chemically Sprayed Cu_2FeSnS_4 (CTFS) Effect of Substrate Temperature, Materials Science Forum, Vol. 1039, pp. 4		
	4. Porous Silicon Preparation and Characterization, Academic Journal for Science, Vol. 3(2), pp. 47-55, **(2021)**.		
	5. Synthesis, Characterization and H2S Gas Sensor Performance of Hydrotherm Films Nanostructures, IOP Conference Series: Earth and Environmental Scie P. 012085, **(2021)**.		
	6. Morphological, Magnetic, Optical, Surface Potential, and H2S Gas Sens Polypyrrole Nanofibers, Journal of Electronic Materials, Vol.(50), PP. 2716-		

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		7. STRUCTURAL, OPTICAL, AND ELECTRICAL PROPERTIES OF Ag_2ZnSnS$_4$ SP THIN FILMS BY CHEMICAL PYROLYSIS METHOD, Chalcogenide Lette s, Vo PP. 65-73, **(2021)**.
		8. Improve the Performance of Porous Silicon for solar application by the embedd ng of Oxide nanoparticle, IOP Conf. Series: Materials Science and Engineering, Vol. 9 28, P. **(2020)**.
		9. The electrical and mechanical properties of cadmium chloride reinforced PV A: PV films, Papers in Physics, Vol. 12, PP. 120006-120006, **(2020)**.
		10. Synthesis and characterization of $MAPbI_3$ thin film and its application in C -Si/pe tandem solar cell, Journal of Materials Science: Materials in Electronics, Vo . 31(16199-16207, **(2020)**.
		11. The Sensitivity of PolyPyrrole NanoTube/(Ag NanoParticle, Ag-NiO nanocom osite) H2S Toxic Gas at Low Temperature, Sensors & Transducers, Vol. 243(4), PP. 1-41,
		12. Optical and Thermal Properties of Cadmium Chloride Reinforced PVA:PVP Blen Journal of Polymer & Composites, Vol. 8(1), PP. 46-52, **(2020)**.
		13. STRUCTURAL, OPTICAL AND ELECTRICAL PROPERTIES OF Cu_2 NiSnS FILMS DEPOSITED BY CHEMICAL SPRAY PYROLYSIS METHOD, Chalc Letters, Vol. 17(4), PP. 179-186, **(2020)**.
		14. The influence of Deposition Temperature on the Properties of Chemi ally Nanostructured Cu2CdSnS4 Thin Films, International Research Journal o Scie Technology, Vol. 1(2), PP. 149-155, **(2020)**.
		15. Structural and optical properties of Cu_2ZnSnS_4 thin films fabricated by c emic pyrolysis, AIP Conference Proceedings, Vol. 2213(1), p. 020082, **(2020)**.
		16. Influence of substrate temperature and thickness on structural and optical prop rties nanostructures thin films, Journal of Ovonic Research, Vol. 15(6), PP. 377-385 **(201**
		17. Role of substrate temperature on the structural and optical properties of chem cally SnO_2 thin films, Digest Journal of Nanomaterials & Biostructures (DJNB), V ol. 14 517-525, **(2019)**.
		18. Synthesis and characterization of chemically sprayed Cu_2CoSnS_4 Thin Films, Chalc Letters, Vol. 16(5), PP. 231-239, **(2019)**.
		19. Photodetector Properties of Polyaniline/CuO Nanostructures Synthesized by Hydr Technique, Journal of Nano- and Electronic Physics, Vol. 11(6), P. 06016(6pp) **(201**
		20. Study of thermal decomposition and FTIR for PVA-AlCl composite films, J. E ng. A Vol. 14, PP. 717-724, **(2019)**.
		21. EFFECT OF OXYGEN FLOW RATE ON STRUCTURAL AND OPTICAL ROP OF SnO_2 THIN FILMS PREPARED BY APCVD TECHNIQUE., Dige t Jou Nanomaterials & Biostructures (DJNB), Vol. 13(3), PP. 603-608, **(2018)**.
		22. H_2S gas sensitivity of PAni nano fibers synthesized by hydrothermal meth d, Jo Materials Science: Materials in Electronics, Vol. 29(13), PP. 11208-11214, **(20 8)**.
		23. DEPOSITION OF CuS, ZnS AND THEIR STACKED LAYERS THIN FIL CHEMICAL SPRAY PYROLYSIS TECHNIQUE, Sci.Int.(Lahore), Vol. 30(2) PP. **(2018)**.

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26. A study of FTIR and some mechanical properties of sodium iodide (NaI) salt illed polyvinyl alcohol (PVA) films, International Letters of Chemistry, Physics a d Ast Vol. 78, PP. 30-38, **(2018)**.

27. Effect of Substrate Temperature on Structural and Optical Properties of ZnO T in Fi Prepared by APCVD Technique, International Journal of Applied Engineering Resea Vol. 13(12), PP. 10796-10803, **(2018)**.

28. Fabrication and efficiency enhancement of Z907 dye sensitized solar cell usin gold nanoparticles, Journal of Advanced Physics, Vol. 6(3), PP. 370-374, **(2017)**.

29. Structural, Optical and Electrical Properties of Thermally Deposited CdS Thin Films of Chemical, Biological and Physical Sciences, Vol. 7(4), PP. 881-889, **(2017)**.

30. The Effect of FTO Sheet Resistance on the Efficiency of Dye Sensitized Sola Cell of Garmian University, Vol. 4(13), PP. 229-240, **(2017)**.

31. Structural and Optical Properties of ZnO Thin Films Deposited on Poly Propyl ne C (PPC) Plastic Substrates by RF Magnetron Sputtering, Optical Properties of Pol mers 80, **(2017)**.

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33. Growth of Copper Sulfate Pentahydrate Single Crystals by Slow Evaporati n Te Journal of Advances in Physics, Vol. 13(2), pp. 4651-4656, **(2017)**.

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35. Influence of Thiourea Concentration on Some Physical Properties of Chem tally Cu_2ZnSnS_4 Thin Films, International Journal of Materials Science and Applicat ns, V pp. 261-270, **(2016)**.

36. Fabrication of Dye Sensitized Solar Cell and Efficiency Enhancement by Us ng N Z907 Dyes Mixture, Journal of Photonic Materials and Technology, Vol. 2), pp **(2016)**.

37. Effect of Fluorine Doping on Structural and Optical Properties of SnO_2 Thin F lms by Chemical Spray Pyrolysis Method, Advances in Materials, Vol. 5(4), pp. 23 30, **(2**

38. Structural and Optical Poperties of Zinc Doped Nickel Ferrite $Ni_{(1-x)}Zn_{(x)}Fe_2$ 4 Th Prepared by Chemical Spray Pyrolysis Method, Journal of Chemical, Biologica and Sciences, Vol. 6(1), pp. 280-293, **(2016)**.

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		39. Effect of Annealing on the Optical Properties of (PVA-CuCl) Composites Inter Letters of Chemistry, Physics and Astronomy, Vol. 63, pp. 98-105, **(2016)**.
		40. Structural Study of $Ba_{1-x}Ca_xTiO_3$ Ceramic Perovskite Material Using X-r y Di Analysis, J. Nano. Adv. Mat., Vol. 4(1), pp. 1-7, **(2016)**.
		41. Study of the Effect of Annealing on Optical Properties of $ZnFe_2O_4$ Films Prepare l by C Spray Pyrolysis Method, Int. J. Thin. Fil. Sci. Tec., Vol. 5(1), pp. 33-37, **(2016**
		42. Effect of Vanadium Doping on Structural Properties of SnO_2 Thin Films Prepare l by C Spray Pyrolysis Method, Journal of Chemical, Biological and Physical Sciences Vol. 145-153, **(2016)**.
		43. Highly efficient photo-degradation of methyl blue and band gap shift of SnS nano under different sonication frequencies, Materials Science in Semiconductor Pr cessi 32, pp. 172-178, **(2015)**.
		44. Effect of Co Doping on Structural and Optical Properties of NiO Thin Film Prep Chemical Spray Pyrolysis Method, International Letters of Chemistry, Phys Astronomy, Vol. 2, pp. 15-30, **(2015)**.
		45. Preparation and Study of Some Electrical Properties of VA-N Composites,International Letters of Chemistry, Physics and Astronomy, Vol. 1 1), pp **(2015)**.
		46. Study of Structural and Optical Properties of $Cd_{(1-X)}Cr_XO$ Thin Films Prepare by C Spray Pyrolysis Method. International Journal of Current Research, Vol. 6(09), p. 838 **(2014)**.
		47. Electrodeposition of Cu–ZnOnanocomposites: Effect of growth conditions on morp and surface properties. Materials Science in Semiconductor Processing, Vol. 27 pp. 5 **(2014)**.
		48. Facile synthesis of different morphologies of Te-doped ZnO nanostructu es. C International, Vol. 40(6), pp. 7737-7743, **(2014)**.
		49. A.C. Conductivity and Dielectric Study of ZnO Thin Films. Internation l Jo Engineering and Technical Research (IJETR), Vol. 2(4), pp. 25-27, **(2014)**.
		50. Optical Characterization of Red Methyl Doped Poly (Vinyl Alcohol) Films Inter Journal of Engineering and Technical Research (IJETR), Vol. 2(4), pp. 126-12 **(201**
		51. Electrical Properties of Polyvinyl Alcohol Films Doped With $CoCl_2$ Salt. Intern tiona of Current Research, Vol. 6(4), pp. 6225-6227, **(2014)**.
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		53. Study of Nanocrystalline Structure and Micro Properties of ZrO_2 Powders by sing Method. International journal of current research, Vol. 6(03), pp. 5743-5748, **(2 014)**.
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		55. Optical and Dispersion parameters of ZnS Thin Films Prepared by Flash Evapo ation International Letters of Chemistry, Physics and Astronomy, Vol. 20(1), pp. 52- 3, **(2**
		56. Structural and dielectric studies of cobalt ferrite nanopowder prepared by ce amic International journal of current research, Vol. 6(1), pp. 4562-4566, **(2014)**.
		57. SEM studies on diamond films prepared by HF-CVD method. Nano Scie ce an Technology: An Indian Journal, Vol. 8(3), pp. 97-104, **(2014)**.

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60. Study of Structural and Optical Properties of $Ni_{(1-x)}Zn_xO$ Thin Films Prepare by C Spray Pyrolysis Method. Diyala Journal for Pure Sciences, Vol. 10(3), pp. 66-7 , **(20**
61. Impact of dilution gases on structure, properties and growth of hydrogenated n nocr silicon (nc-Si: H) prepared by HW-CVD method, Int. J. Thin Film Sci. Tec, Vol 2(2), 126, **(2013)**.
62. Structural and Optical Properties of ZnO Thin Films Deposited on Poly Propyl ne C (PPC) Plastic Substrates by RF Magnetron Sputtering, 20th Scientific Confere ce of of Education, Al-Mustansiriyah University, pp. 626-633, **(2013)**.
63. Optical Parameters of Amorphous Selenium Deposited by Thermal Evaporati n Te Physical Chemistry: An Indian Journal, Vol. 8(2), pp. 54-58, **(2013)**.
64. Helium Induced Structural Disorder in Hydrogenated Nanocrystalline Silicon nc-Si Films Prepared by HW-CVD Method, Journal of Nano- and Electronic Physics Vol. pp. 03006-1 – 03006-7, **(2012).**
65. Synthesis and Study of ZnONanorods and Fe-Doped ZnO Nanoflowers by Atm Pressure Chemical Vapor Deposition (APCVD) Technique, Journal of Electron Devi 15, pp. 1200-1208, **(2012).**
66. Magnetic and Magnetostrictive Properties of Co(1-x)ZnxFe2O4 Nanoparticle Proc Co-Precipitation Method, Tikrit Journal of Pure Science, Vol. 16(4), pp. 216-2 2, **(20**
67. Role of argon in hot wire chemical vapor deposition of hydrogenated Nanocry tallin thin films, Thin Solid Films, 519, pp.3501–3508, **(2011).**
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69. Influence of deposition pressure on structural, optical and electrical properties o nc-Si deposited by HW-CVD, Journal of Physics and Chemistry of Solids, Vol. 72 pp. 6 **(2011).**
70. Synthesis of Hydrogenated Nanocrystalline Silicon (nc-Si:H) Thin Films Dep sited CVD for Solar Cell Applications: The Role of Hydrogen Dilution of Silane, I rocee First Scientific Conference on Nanotechnology, Advanced Materials and thei appl (SCNAMA), Univ. of Technology, Baghdad, Iraq, Part 2, pp. 23-38, **(2009).**
71. Influence of argon flow on deposition of hydrogenated nanocrystalline silicon nc-Si: by plasma chemical vapor deposition, Journal of Nano Research, Vol.5, pp. 18 -191,
72. Influence of hydrogen dilution on structural, electrical and optical properties of hydro nanocrystalline silicon (nc-Si:H) thin films prepared by plasma enhanced c emic deposition (PE-CVD), Solar Energy Materials and Solar Cells, Vol. 92, pp 121 **(2008).**
73. Deposition of hydrogenated amorphous silicon (a-Si:H) films by hot-wire c emic deposition (HW-CVD) method: Role of substrate temperature, Solar Energy Mater Solar Cells, Vol. 91, pp. 714-720, **(2007).**

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Scientific expertise	***Occupation & job Description:*** Working as a Professor at the Diyala University, College of Science. Authored more than 80 scientific publications and has been part of many committees and organization bodies. Taught many subjects, (statistical and classical mechanics, optoelectronics, thin film techniques and mathematical physics). Scopus shows more than 500 citations for my research work with an h-index of 12. Research interests are thin films, solar cells, material science and characterization techniques.