

1. Khan, M. A. and **Al-Kuhaili, M. F.**, "CW laser pumping of the $4s^2 \ ^1S_0 - 4s4p \ ^3P_1$ transition of calcium: study of ionization and absorption line profiles," **Journal of Physics B**. Vol. 26, No. 3, pp. 393-402, (1993).
2. Khan, M. A., Khawaja, E. E. and **Al-Kuhaili, M. F.**, "Collective effects in the ionization of calcium atoms following resonant laser pumping of $4s4p \ ^3P_1$ metastable states," **Journal of Physics D**. Vol. 26, No. 10, pp. 1614-1621, (1993).
3. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Khawaja, E. E., "Effects of preparation conditions and thermocoloration on the optical properties of thin films of molybdenum oxide," **Thin Solid Films**. Vol. 408, No. 1-2, pp. 188-193, (2002).
4. **Al-Kuhaili, M. F.**, Durrani, S. M. A., Khawaja, E. E. and Shirokoff, J., "Effects of preparation conditions on the optical properties of thin films of tellurium oxide," **Journal of Physics D**. Vol. 35, No. 9, pp. 910-915, (2002).
5. Durrani, S. M. A., Khawaja, E. E., Salim, M. A., **Al-Kuhaili, M. F.** and Al-Shukri, A. M., "Effect of preparation conditions on the optical and thermochromic properties of thin films of tungsten oxide," **Solar Energy Materials and Solar Cells**. Vol. 71, No. 3, pp. 313-325, (2002).
6. **Al-Kuhaili, M. F.**, "Optical properties of scandium oxide films prepared by electron beam evaporation," **Thin Solid Films**. Vol. 426, No. 1-2, pp. 178-185, (2003).
7. **Al-Kuhaili, M. F.**, Glosser, R., Wickenden, A. E., Koleske, D. D. and Henry, R., "Electroreflectance of hexagonal gallium nitride at the fundamental and E_1 spectral regions," **Applied Physics Letters**. Vol. 82, No. 8, pp. 1203-1205, (2003).
8. Khawaja, E. E., Durrani, S. M. A. and **Al-Kuhaili, M. F.**, "Determination of average refractive index of thin CeO_2 films with large inhomogeneities," **Journal of Physics D**. Vol. 36, No. 5, pp. 545-551, (2003).
9. Durrani, S. M. A., **Al-Kuhaili, M. F.** and Khawaja, E. E., "Characterization of thin films of $a-SiO_x$ ($1.1 < x < 2.0$) prepared by reactive evaporation of SiO ," **Journal of Physics: Condensed Matter**. Vol. 15, No. 47, pp. 8123-8135, (2003).
10. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Khawaja, E. E., "Optical properties of gallium oxide films deposited by electron beam evaporation," **Applied Physics Letters**. Vol. 83, No. 22, pp. 4533-4535, (2003).
11. **Al-Kuhaili, M. F.**, Khawaja, E. E. and Durrani, S. M. A., "Characterization of hafnium oxide thin films prepared by electron beam evaporation," **Journal of Physics D**. Vol. 37, No. 8, pp. 1254-1261, (2004).
12. **Al-Kuhaili, M. F.**, Khawaja, E. E., Ingram, D. C. and Durrani, S. M. A., "A study of thin films of V_2O_5 containing molybdenum from an evaporation boat," **Thin Solid Films**. Vol. 460, No. 1-2, pp. 30-35, (2004).
13. Durrani, S. M. A., Khawaja, E. E., Al-Shukri, A. M. and **Al-Kuhaili, M. F.**, "Dielectric/Ag/Dielectric coated energy-efficient glass windows for warm climates," **Energy and Buildings**. Vol. 36, No. 9, pp. 891-898, (2004).
14. **Al-Kuhaili, M. F.**, "Optical properties of hafnium oxide thin films and their application in energy efficient-windows," **Optical Materials**. Vol. 27, No. 3, pp. 383-387, (2004).
15. Durrani, S. M. A., Khawaja, E. E. and **Al-Kuhaili, M. F.**, "CO-sensing properties of undoped and doped tin oxide thin films prepared by electron beam evaporation," **Talanta**. Vol. 65, No. 5, pp. 1162-1167, (2005).
16. Khawaja, E. E., Al-Daous, M., Durrani, S. M. A. and **Al-Kuhaili, M. F.**, "Chemical inhomogeneity in zinc telluride thin films prepared by thermal evaporation," **Thin Solid Films**. Vol. 485, No. 1-2, pp. 16-21, (2005).
17. **Al-Kuhaili, M. F.**, "A study of the fluorescent properties of spin-coated sodium salicylate thin films," **Journal of Luminescence**. Vol. 117, No. 2, pp. 209-216, (2006).
18. **Al-Kuhaili, M. F.**, Khawaja, E. E. and Durrani, S. M. A., "Determination of the optical constants (n and k) of inhomogeneous thin films with linear index profiles," **Applied Optics**. Vol. 45, No. 19, pp. 4591-4597, (2006).
19. **Al-Kuhaili, M. F.**, "Chemical and optical properties of thermally evaporated manganese oxide thin films," **Journal of Vacuum Science and Technology A**. Vol. 24, No. 5, pp. 1746-1750, (2006).
20. **Al-Kuhaili, M. F.** and Durrani, S. M. A., "Optical properties of erbium oxide thin films deposited by electron beam evaporation," **Thin Solid Films**. Vol. 515, No. 5, pp. 2885-2890, (2007).
21. **Al-Kuhaili, M. F.** and Durrani, S. M. A., "Optical properties of chromium oxide thin films deposited by electron-beam evaporation," **Optical Materials**. Vol. 29, No. 6, pp. 709-713, (2007).
22. **Al-Kuhaili, M. F.**, "Characterization of thin films produced by the thermal evaporation of silver oxide," **Journal of Physics D**. Vol. 40, No. 9, pp. 2847-2853, (2007).
23. **Al-Kuhaili, M. F.**, Khawaja, E. E. and Durrani, S. M. A., "A method for the determination of the optical constants (n and k) of thin films with large optical inhomogeneities," **Journal of Modern Optics**. Vol. 54, No. 10, pp. 1453-1465, (2007).
24. **Al-Kuhaili, M. F.** and Durrani, S. M. A., "Incorporation of oxygen into thermally evaporated germanium and optical characterization of the resulting films" **Journal of Applied Physics**. Vol. 102, No. 5, Art. No. 053512, (2007).

25. **Al-Kuhaili, M. F.**, "Characterization of copper oxide thin films deposited by the thermal evaporation of cuprous oxide (Cu_2O)" **Vacuum**. Vol. 82, No. 6, pp. 623-629, (2008).
26. Durrani, S. M. A. and **Al-Kuhaili, M. F.**, "Effect of biasing voltage and electrode metals and materials on the sensitivity of electron beam evaporated HfO_2 thin film CO sensor," **Materials Chemistry and Physics**. Vol. 109, No. 1, pp. 56-60, (2008).
27. Durrani, S. M. A., **Al-Kuhaili, M. F.** and Bakhtiari, I. A., "Carbon monoxide gas-sensing properties of electron-beam deposited cerium oxide thin films," **Sensors and Actuators B**. Vol. 134, No. 2, pp. 934-939, (2008).
28. **Al-Kuhaili, M. F.**, Al-Maghribi, M. A., Durrani, S. M. A. and Bakhtiari, I. A., "Investigation of $ZnO/Al/ZnO$ multilayers as transparent conducting coatings," **Journal of Physics D**. Vol. 41, No. 21, Art. No. 215302, (2008).
29. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Carbon monoxide gas-sensing properties of CeO_2-ZnO thin films," **Applied Surface Science**. Vol. 255, No. 5 part 2, pp. 3033-3039, (2008).
30. Al-Maghribi, M. A., **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Influence of vacuum annealing on the physical properties of $ZnO/Al/ZnO$ multilayer coatings," **Journal of Vacuum Science and Technology A**. Vol. 27, No. 2, pp. 276-281, (2009).
31. **Al-Kuhaili, M. F.**, Al-Aswad, A. H., Durrani, S. M. A. and Bakhtiari, I. A., "Transparent heat mirrors based on tungsten oxide-silver multilayer structures," **Solar Energy**. Vol. 83, No. 9, pp. 1571-1577, (2009).
32. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Pulsed laser deposition of molybdenum oxide thin films," **Applied Physics A – Materials Science & Processing**. Vol. 98, No. 3, pp. 609-615, (2010).
33. **Al-Kuhaili, M. F.**, Durrani, S. M. A., Bakhtiari, and Al-Shukri, A. M., "Optical constants and thermocoloration of pulsed laser deposited molybdenum oxide thin films," **Optics Communications**. Vol. 283, No. 14, pp. 2857-2862 (2010).
34. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Carbon monoxide gas-sensing properties of CeO_2-WO_3 thin films," **Materials Science and Technology**. Vol. 26, No. 6, pp. 726-731 (2010).
35. **Al-Kuhaili, M. F.**, Durrani, S. M. A., Bakhtiari, I. A., Dastageer, M. A. and Mekki, M. B., "Influence of hydrogen annealing on the properties of hafnium oxide thin films," **Materials Chemistry and Physics**. Vol. 126, No. 3, pp. 515-523 (2011).
36. **Al-Kuhaili, M. F.** and Durrani, S. M. A., "Effect of annealing on pulsed laser deposited zirconium oxide thin films," **Journal of Alloys and Compounds**. Vol. 509, No. 39, pp. 9536-9541 (2011).
37. **Al-Kuhaili, M. F.**, Saleem M. and Durrani, S. M. A., "Optical properties of iron oxide ($\alpha-Fe_2O_3$) thin films deposited by the reactive evaporation of iron," **Journal of Alloys and Compounds**. Vol. 521, pp. 178-182 (2012).
38. Durrani, S. M. A., **Al-Kuhaili, M. F.**, Bakhtiati, I. A. and Haider, M. B. "Investigation of the carbon monoxide gas sensing characteristics of tin oxide mixed cerium oxide thin films," **Sensors**. Vol. 12, No. 3, pp. 2598-2609 (2012).
39. Saleem, M., **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiati, I. A. "Characterization of nano-crystalline $\alpha-Fe_2O_3$ thin films grown by reactive evaporation and oxidation of iron," **Physica Scripta**. Vol. 85, No. 5, Art. No. 055802 (2012).
40. **Al-Kuhaili, M. F.**, Durrani, S. M. A., Bakhtiati, I. A., and Saleem, M., "Optical constants of vacuum annealed radio frequency (RF) magnetron sputtered zinc oxide thin films," **Optics Communications**. Vol. 285, No. 21-22, pp. 4405-4412 (2012).
41. **Al-Kuhaili, M. F.**, Al-Aswad, A. H., Durrani, S. M. A. and Bakhtiari, I. A., "Energy-saving transparent heat mirrors based on tungsten oxide-gold $WO_3/Au/WO_3$ multilayer structures," **Solar Energy**. Vol. 86, No. 11, pp. 3183-3189, (2012).
42. **Al-Kuhaili, M. F.**, Kayani, A., Durrani, S. M. A., Bakhtiari, I. A. and Haider, M. B., "Band gap engineering of zinc selenide thin films through alloying with cadmium telluride," **ACS Applied Materials and Interfaces**. Vol. 5, No. 11, pp. 5366-5372, (2013).
43. Haider, M. B., **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Effect of annealing on the optical properties of GaN films grown by pulsed laser deposition," **Journal of Materials Science and Technology**. Vol. 29, No. 8, pp. 752-756, (2013).
44. **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiari, I. A., "Influence of oxygen flow rate on the surface chemistry and morphology of radio frequency (RF) magnetron sputtered zinc oxide thin films," **Surface and Interface Analysis**. Vol. 45, No. 9, pp. 1353-1357, (2013).
45. Saleem, M., **Al-Kuhaili, M. F.**, Durrani, S. M. A. and Bakhtiati, I. A. "Phase dependent growth of superficial nanowalls-like structure on TiO_2 thin films in molecular hydrogen (H_2) annealing environment," **International Journal of Hydrogen Energy**. Vol. 38, No. 28, pp. 12497-12502 (2013).

46. **Al-Kuhaili, M. F.** and Durrani, S. M. A., "Structural and optical properties of dysprosium oxide thin films," **Journal of Alloys and Compounds**. Vol. 591, pp. 234-239 (2014).
47. **Al-Kuhaili, M. F.**, Alade, I. O. and Durrani, S. M. A., "Optical constants of hydrogenated zinc oxide thin films," **Optical Materials Express**. Vol. 4, No. 11, pp. 2323-2331, (2014).
48. Saleem, M., Durrani, S. M. A., Saheb, N., **Al-Kuhaili, M. F.**, and Bakhtiari, I. A. "The effect of annealing on structural and optical properties of α -Fe₂O₃/CdS/ α -Fe₂O₃ multilayer heterostructures," **Applied Surface Science**. Vol. 320, pp. 653-657, (2014).
49. **Al-Kuhaili, M. F.**, Ahamad, S. H., Durrani, S. M. A., Faiz, M. M., and Ul-Hamid, A. "Energy-saving spectrally-selective coatings based on MoO₃/Ag thin films," **Materials and Design**. Vol. 73, pp. 15-19, (2015).
50. **Al-Kuhaili, M. F.**, Ahamad, S. H., Durrani, S. M. A., Faiz, M. M., and Ul-Hamid, A. "Application of nickel oxide thin films in NiO/Ag multilayer energy-efficient coatings," **Materials Science in Semiconductor Processing**. Vol. 39, pp. 84-89 (2015).
51. Saleem, M., **Al-Kuhaili, M. F.**, Durrani, S. M. A., Hendi, A., Bakhtiari, I. A., and Ali, S. "Influence of hydrogen annealing on the optoelectronic properties of WO₃ thin films," **International Journal of Hydrogen Energy**. Vol. 40, No. 36, pp. 12343-12351 (2015).
52. **Al-Kuhaili, M. F.**, Durrani, S. M. A., El-Said, A. S., and Heller, R. "Influence of iron doping on the structural, chemical, and optoelectronic properties of sputtered zinc oxide thin films," **Journal of Materials Research**. Vol. 31, Issue 20, pp. 3230-3239 (2016).
53. **Al-Kuhaili, M. F.**, Durrani, S. M. A., El-Said, A. S., and Heller, R. "Enhancement of the refractive index of sputtered zinc oxide thin films through doping with Fe₂O₃," **Journal of Alloys and Compounds**. Vol. 690, pp. 453-460 (2017).
54. Hendi, A. H., **Al-Kuhaili, M. F.**, Durrani, S. M., Faiz, M. M., Ul-Hamid, A., Quraishi, A., Khan, I. "Modulation of the band gap of tungsten oxide thin films through mixing with cadmium telluride towards photovoltaic applications," **Materials Research Bulletin**. Vol. 87, pp. 148-154 (2017).
55. Hendi, A. H., **Al-Kuhaili, M. F.**, Durrani, S. M., Faiz, M. M., Ul-Hamid, A., Quraishi, A., Khan, I. "Tunable visible light absorption of MoO₃-CdTe composite thin films," **Thin Solid Films**. Vol. 636, pp. 137-143 (2017).
56. Ahamad, S. H., **Al-Kuhaili, M. F.**, Durrani, S. M. A., Faiz, M. M., and Ul-Hamid, A. "Bi-layered energy efficient coatings as transparent heat mirrors based on vanadium oxide thin films," **Solar Energy Materials and Solar Cells**. Vol. 169, pp. 258-263, (2017).
57. **Al-Kuhaili, M. F.**, Baqraf, S. A., Durrani, S. M. "A Substantial linear red shift in the band gap in heavily copper doped zinc oxide thin films deposited by co-sputtering," **Journal of Materials Science: Materials in Electronics**. Vol. 28, pp. 12956-12961 (2017).
58. Hussain, T., **Al-Kuhaili, M. F.**, Durrani, S. M. A., Qurashi, A., and Qayyum, H. A. "Enhancement in the solar light harvesting ability of tungsten oxide thin films by annealing in vacuum and hydrogen," **International Journal of Hydrogen Energy**. Vol. 42, pp. 28755-28765 (2017).
59. Qayyum, H. A., **Al-Kuhaili, M. F.**, and Durrani, S. M. A., "Investigation of fundamental and high order optical transitions in α -Fe₂O₃ thin films using surface barrier electroreflectance," **Superlattices and Microstructures**. Vol. 110, pp. 98-107 (2017).
60. Qayyum, H. A., **Al-Kuhaili, M. F.**, Durrani, S. M. A., Hussain, T., and Ikram, M., "Blue shift in the optical transitions of ZnO thin film due to an external electric field," **Journal of Physics and Chemistry of Solids**. Vol. 112, pp. 94-99 (2018).
61. Hussain, T., **Al-Kuhaili, M. F.**, Durrani, S. M. A., and Qayyum, H. A. "Effect of collision during vapor transport between Cd and X (X=Te₂, Se₂, or S₂) molecules on the properties of thermally evaporated CdTe, CdSe, and CdS thin films," **Results in Physics**. Vol. 8, pp. 988-1000 (2018).
62. Qayyum, H. A., **Al-Kuhaili, M. F.**, Durrani, S. M. A., Hussain, T., Ahmad, S. H., and Ikram, M., "Electromodulation of wide-bandgap semiconductors," **Journal of Alloys and Compounds**. Vol. 747, pp. 374-384 (2018).
63. Hussain, T., **Al-Kuhaili, M. F.**, Durrani, S. M. A., and Qayyum, H. A. "Influence of angle deposition on the properties of ZnTe thin films prepared by thermal evaporation," **Ceramics International**. Vol. 44, pp. 10130-10140 (2018).
64. **Al-Kuhaili, M. F.**, and Mekki, M. B. "P-type conductivity in hydrogenated radio frequency sputtered tin oxide thin films," **Journal of Alloys and Compounds**. Vol. 772, pp. 801-807 (2019).
65. **Al-Kuhaili, M. F.**, "Enhancement of plasmonic transmittance of porous gold thin films via gold/metal oxide bi-layers for solar energy-saving applications," **Solar Energy**. Vol. 181, pp. 456-463 (2019).
66. **Al-Kuhaili, M. F.**, Mekki, M. B., Abdalla, S. A. "Influence of vacuum annealing on the photoresponse of thermally evaporated cadmium telluride thin films," **Thin Solid Films**. Vol. 686, Art. No. 137412 (2019).

67. **Al-Kuhaili, M. F.** "Electromodulated transmittance of optical transitions in tungsten oxide," **Journal of Physics and Chemistry of Solids**. Vol. 139, Art. No. 109317 (2020).
68. **Al-Kuhaili, M. F.** "Electrical conductivity enhancement of indium tin oxide (ITO) thin films reactively sputtered in a hydrogen plasma," **Journal of Materials Science: Materials in Electronics**. Vol. 31(4), pp. 2729-2740 (2020).
69. **Al-Kuhaili, M. F.**, Daoud, M. E., Mekki, M. B. "Spectrally selective energy-saving coatings based on reactively sputtered bismuth oxide thin films," **Optical Materials Express**. Vol. 10 (2), pp. 449-463 (2020).
70. Maarouf, M., Haider, M. B., **Al-Kuhaili, M. F.**, Aljaafari, A., Khan, J. Y., "Negative magnetoresistance in iron doped TiN thin films prepared by reactive magnetron sputtering," **Journal of Magnetism and Magnetic Materials**. Vol. 514, Art. No. 167235 (2020).
71. **Al-Kuhaili, M. F.** "Co-sputtered tantalum-doped tin oxide thin films for transparent conducting applications," **Materials Chemistry and Physics**. Vol. 257, Art No. 123749 (2021).
72. **Al-Kuhaili, M. F.** "Photoelectric properties of highly conductive samarium-doped cadmium telluride thin films for photovoltaic applications," **Solar Energy**. Vol. 213, pp. 163-171 (2021).
73. **Al-Kuhaili, M. F.**, Mekki, M. B. "Laser induced photocoloration in molybdenum oxide thin films," **Journal of Alloys and Compounds**. Vol. 885, Art. No. 161043 (2021).
74. Qayyum, H. A., **Al-Kuhaili, M. F.**, Hussain, T., Durrani, S. M. A., "Recovering the optical transitions in tin oxide thin films at room temperature using electroreflectance," **Superlattices and Microstructures**. Vol. 156, 106985 (2021).
75. **Al-Kuhaili, M. F.**, Drmosh, Q. A. "Investigating the structural and optoelectronic properties of co-sputtered Fe-doped WO_3 thin films and their suitability for photocatalytic applications," **Materials Chemistry and Physics**. Vol. 281, Art No. 125897 (2022).