

## Zubair Ahmad (Ph.D.)

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### Research & work Experience

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September 2016- to date	Center for Advanced Materials (CAM), Qatar University, 2713, Doha, <b>Qatar</b>	Researcher
March 2015-September 2016	Dept. of Electrical Engineering, College of Engineering, Qatar University, Doha, <b>Qatar</b>	Awarded-Postdoc
November 2011 –February 2015	Low Dimensional Materials Research Centre (LDMRC) University of Malaya, <b>Malaysia</b>	Postdoctoral Research Fellow
May2013-July2013	IWAMOTO-MANAKA LABORATORY, Department of Physical Electronics, Tokyo Institute of Technology, <b>Japan</b>	Visiting Research Associate
July 2011- November 2011	Center for Photon Information Processing, INHA University, <b>S. Korea</b>	Visiting Research Fellow
Jun 2010-Nov 2010	University of Auckland, <b>New Zealand</b>	Research Fellow
2008-2011	Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, <b>Pakistan</b>	Ph.D. Student
2006-2008	Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, <b>Pakistan</b>	MS Student

### Research Areas & Skills

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Research Areas	Solar cells (Thin films and DSSCs), Thermo-electric Generators (TEGs), Hybrid Energy Systems, Sensors, D FETs, Non-volatile Memories, Organic Smart Materials
Thin Film Deposition:	Vacuum Thermal Evaporation, Spin Coating, Dip Coating, Electrospinning and Pulsed Laser Deposition.
Material Characterization:	FESEM, XRD, AFM, DSC, TGA, UV/Visible/IR and FT-IR Spectroscopy, Raman/PL Spectroscopy, Electric Field Induced Second Harmonic Generation Microscopy and spectroscopy (TRMSHG & EFISHG), Surface/interface characterizations
Device Fabrication:	Micro-fabrication, Clean Room, Optical Lithography, Electrochemical cells
Device Characterization:	Electrical, Optical, Surface, Structural, Morphological and Temperature Dependent.
Computational:	Mathematical Modeling of Devices, FDTD Simulation.

### Research Grants & Awards

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1. PDRA Award from the Qatar National Research Fund under grant No. PDRA1-0117-14109
2. Grant-in Aid for Scientific Research (S) (No. 22226007) from the Japan Society for the Promotion of Science (JSPS)
3. Co-Researcher in HIR UM-Moe Grant # UM.C/625/3/HIR/MOHE/SCI/26 from Ministry of Education, Malaysia
4. International Research Support Initiative Program (IRSIP) Award (PIN: IRSIP 12 Egr 03) from Higher Education Commission of Pakistan
5. Scholarship for MS Leading to PhD from Higher Education Commission of Pakistan
6. Gold Medal and Cash prize at "International Exposition of Research and Innovation in Education 2013 (Edu-InERI2013), University Pendidikan Sultan Idris, Perak, Malaysia. For the best practical applicable green technology sensors entitled: "From Organic Semiconductor to Multifunctional Sensors: Towards Green Technology"

7. Best poster award at ICAMN III 2013, held in Penang, Malaysia
8. Bronze Medal at ICFMD-2013, held in Penang, Malaysia

## International Patents

1. Zubair Ahmad, Farid Touati, Kh. S. Karimov "Fabrication of flexible conductive films for application in elastic thermo-electric cells by rubbing in technology" ([Patent Application in USA](#)), Patent Application No. : **QF IPTT: 2015-072**, Submitted Date : 21/06/2015
2. Zubair Ahmad, Farid Touati, Kh. S. Karimov, R.A. Shakoore "Pressure sensitive thermo-electric generator ([Patent Application in USA](#)), Patent Application No. : **QF IPTT: 2015-119**, Submitted Date : 05/11/2015
3. Khaulah Sulaiman, Khasan Karimov and Zubair Ahmad "High sensitivity pressure and displacement capacitive sensor and method for making the same" ([Patent Application in Malaysia](#)) Patent Application No. : **PI2014703267**, Filing Date : 04/11/2014

## Journal Articles

1. Kh. S. Karimov, **Zubair Ahmad** and Farid Touati, "Demonstrative collector photovoltaic TEG hybrid system with two-stage concentrator" ([Under Review](#))
2. Fahmi F. Muhammada, Mohd Y. Yahyaa, Shilan S. Hameed Al-jaf, **Zubair Ahmad**, Fakhra Aziz and Khaulah Sulaiman "Simulation approach to elucidate the photovoltaic performance of organic solar cells under various conditions; A comparison to the experimental evidences" ([Under Review](#))
3. **Zubair Ahmad**, Farid Touati, Mansoor Ani Najeeb, R.A. Shakoore "Optimization of the best operating temperature for the PCPDTBT: PC71BM thin film BHJ solar cells" ([Under Review](#))
4. M I Azmeer; **Zubair Ahmad**, Khaulah Sulaiman; Farid Touati "VOPcPhD:P3HT Composite Micro-Structures Developed By Electro-Spinning Technique To Improve Humidity Sensing: A comparative study" ([Under Review](#))
5. **Zubair Ahmad** and Qayyum Zafar, "Dual Donor Bulk-Heterojunction: An attractive mean to realize wide bandwidth visible photodetection" ([Under Review](#))
6. N. Fatima, M. M. Ahmed, Kh. S. Karimov and **Zubair Ahmad** "Optoelectronic properties of the NiPc-CoPc composite films deposited at different gravity conditions" ([Under Review](#))
7. **Zubair Ahmad**, Jolly Bhadra, Farid Touati, Abdullah Alashraf, R.A. Shakoore and N. J Al-Thani, "Flexible thermo-electric cells using iodolyte HI-30 for conversion of low-grade heat to electrical energy" "[RSC ADV](#) 6 (2016) 71370 (IF=3.28)
8. **Zubair Ahmad**, Khasan S. Karimov, Farid Touati, M. Salman Ajmal, TaimoorAli, Saif HaiderKayani, K.Kabutov, R.A.Shakoore, N.J.Al-Thani "n-InAs based photo-thermo-electrochemical cells for conversion of solar to electrical energy" "[J ELECTROANAL. CHEM](#) 775 (2016) 267-272 (IF=2.822)
9. Haseeb Asharaf Malik, Fakhra Aziz, Muhammad Asif, Ehsan Raza, Wageh Swelm, Qayyum Zafar, Mansoor A Najeeb, **Zubair Ahmad**, Afzal Hussain, Khaulah Sulaiman, Farid Touati "Enhancement of Optical Features and Sensitivity of MEH-PPV/VOPcPhD Photodetector using CdSe Quantum Dots" "[J LUMIN](#) 180(216)209-213 (IF= 2.69)
10. **Zubair Ahmad**, Farid Touati, R. A. Shakoore and N. J. Al-Thani, "Study of a ternary blend system for bulk heterojunction thin film solar cells" "[CHINESE PHYS B](#) 25 (2016) 080701 (IF=1.6)
11. Kh. S. Karimov, **Zubair Ahmad**, N. Fatima and M. M. Ahmed, and Muhammad Abid, Effect of humidity on copper phthalocyanine films deposited at different gravity conditions" "[PIGM RESIN TECHNOL](#) Accepted for publication (2016) (IF= 0.788)
12. Ali Sephar Shikoh, **Zubair Ahmad**, Farid Touati, R.A Shakoore, N. J. Al-Thani, Zhaozhao Zhu, Trent Mankowski, Mohieddine A. Benammar, Masud Mansuripur and Charles M. Falco, "Integration of the inexpensive CuNWs based transparent counter electrode with Dye Sensitized Photo Sensor" "[RSC ADV](#) 6 (2016) 53123 (IF=3.84)
13. **Zubair Ahmad**, Khasan S. Karimov, Farid Touati, S.A.Moiz, Rashid Ali, R. A. Shakoore and N. J. Al-Thani, "Impact of moisture contents on the performance of organic bi-layer ITO/DD thermo-electric cells" "[J MATER SCI-MATER EL](#) (2016) 1 (IF=1.569)
14. Mansoor A Najeeb, Shahino M Abdullah, **Zubair Ahmad**, S Wageh, Ahmed Al-Ghamdi, Fakhra Aziz, Khaulah Sulaiman, Farid Touati "Structural, morphological and optical properties of PEDOT:PSS/QDs nano-composite films prepared by spin-casting" "[PHYSICA E](#) 83 (2016) 64-68 (IF=2.0)
15. Mohamad Izzat Azmer, Qayyum Zafar, **Zubair Ahmad** and Khaulah Sulaiman, "Humidity sensor based on electrospun MEH-PPV:PVP microstructured composite" "[RSC ADV](#) 6 (2016) 35387 (IF=3.84)

16. **Zubair Ahmad**, Farid Touati, Qayyum Zafar and Mutabar Shah "Integrated capacitive and resistive humidity transduction via surface type nickel phthalocyanine based sensor" [INT J ELECTROCHEM SC](#) (2016) in press (IF=1.50)
17. Abdullah G. Al-Sehemi, Mohammad S. Al-Assiri, Abul Kalam, Qayyum Zafar, Mohamad Izzat Azmer, Khaulah Sulaiman and **Zubair Ahmad** "Sensing performance optimization by tuning electrical properties of organic (D- $\pi$ -A) dye based humidity sensor" [SENS ACTUAT B-CHEM](#) 231 (2016) 30-37 (IF=4.097)
18. Ehsan Raza, M Asif, Fakhra Aziz, M I Azmeer; Haseeb A Malik, Chin-Hoong Teh, Mansoor A Najeeb, Qayyum Zafar, Fazal Wahab, Rusli Daik, Norazilawati M Sarih, Khaulah Sulaiman, **Zubair Ahmad**, Influence of thermal annealing on a capacitive humidity sensor based on newly synthesized macroporous PBObzT2 [SENS ACTUAT B-CHEM](#) 235 (2016) 146 (IF=4.097)
19. Mansoor Ani Najeeb, Shahino Mah Abdullah, Fakhra Aziz, Mohamad Izzat Azmer, Wageh Swelm, Ahmed A. Al-Ghamdi, **Zubair Ahmad**, Azzuliani Supangat and Khaulah Sulaiman, Improvement in the photovoltaic properties of hybrid solar cells by incorporating QDs-composite in the hole transport layer [RSC ADV](#) 6 (2016) 23048 (IF=3.84)
20. **Zubair Ahmad**, Qayyum Zafar, Farid Touati, R. A. Shakoor and N.J Al-Thani, "Study of  $\pi$ -conjugation effect of organic semiconductors on their optical parameters" [OPT MATER](#) 54 (2016) 94-97 (IF=1.981)
21. Mohamad Izzat Azmer, **Zubair Ahmad**, Khaulah Sulaiman and Farid Touati "Morphological and structural properties of VoPcPhD:P3HT composite thin films" [MATER LETT](#) 164 (2016) 605-608 (IF= 2.489)
22. **Zubair Ahmad**, Khasan S. Karimov, Noshin Fatima and Farid Touati "Flexible organic photo-thermogalvanic cell for low power applications" [J MATER SCI-MATER EL](#) 27 (2016) 2442-2447 (IF=1.569)
23. **Zubair Ahmad**, Kh S Karimov and Farid Touati "Flexible impedance and capacitive tensile load sensor based on CNT composite" [CHINESE PHYS B](#) 25 (2016) 028801 (IF=1.603)
24. Karwan Wasman Qadir, **Zubair Ahmad**, Khaulah Sulaiman, Chi Chin Yap, Farid Touati, "Binary blend based dye sensitized photo sensor using PCPDTBT and MEH-PPV composite as a light sensitizer" [SYNTHETIC MET](#) 210 (2015) 392-397 (IF=2.25)
25. Khasan S. Karimov, **Zubair Ahmad**, Farid Touati, M. Mahroof-Tahir, M. Muqet Rehman, S. Zameer Abba "Surface-Type Nonvolatile Electric Memory Elements Bases on Organic-on-Organic CuPc-H2Pc Heterojunction" [CHINESE PHYS B](#) 24 (2015) 116102 (IF=1.603)
26. Qayyum Zafar, Mansoor Ani Najeeb, **Zubair Ahmad** and Khaulah Sulaiman "Organic-inorganic hybrid nanocomposite for enhanced photo- of PFD sensing -DBT:MEH-PPV:PC71BM blend based photo detector" [J NANOPART RES](#) 17 (2015) 372 (IF=2.184)
27. Shahino Mah Abdullah, **Zubair Ahmad**, Khaulah Sulaiman, "The Impact of Thermal Annealing to the Efficiency and Stability of Organic Solar Cells based on PCDTBT: PC71BM" *Procedia-Social and Behavioral Sciences* 195 (2015) 2135-2142 (IF=---)
28. **Zubair Ahmad**, Shahino M Abdullah, Dai Taguchi, khaulah Sulaiman, Takaaki Manaka, Mitsumasa Iwamoto "A way for studying the impact of pedot:pss interface layer on carrier transport in pcdtbt:pc71bm bulk hetero junction solar cells" [J APPL PHYS](#) 117 (2015) 6 (IF=2.183)
29. Mohamad Izzat Azmer, **Zubair Ahmad**, Khaulah Sulaiman, "MEH-PPV:PVP composite microstructures by an electrospinning technique: Structural and optical properties" [MATER LETT](#), 150 (2015) 73 (IF= 2.489)
30. M. L. Inche Ibrahim, **Zubair Ahmad**, Khaulah Sulaiman, "Analytical expression for the current-voltage characteristics of organic bulk heterojunction solar cells" [AIP ADV](#) 5 (2015) 027115 (IF= 1.524)
31. Fakhra Aziz, Khaulah Sulaiman, Wissam Khayer Al-Rawi, **Zubair Ahmad**, M. H. Sayyad, L. L. Wei, Kh. S. Karimov, M. Tahir, "Enhancement of electrical properties of vanadyl phthalocyanine derivative by PCBM" [PIGM RESIN TECHNOL](#) 44 (2015) 148 - 156 (IF= 0.788)
32. Kh.S.Karimov, Noshin Fatima, Khaulah Sulaiman, M.Mahroof Tahir, **Zubair Ahmad** and A.Mateen "Humidity dependent electrical properties of OD and OD-CNT thin films deposited under high gravity conditions" [Journal of Semiconductors](#), 36 (2015) 034005
33. Kh. S. Karimov, Khaulah Sulaiman, **Zubair Ahmad**, Khakim M. Akhmedov, A.Mateen "Novel pressure and displacement sensors based on carbon nanotubes" [CHINESE PHYS B](#), 24 (2015) 018801 (IF=1.603)
34. K. W. Qadir, **Zubair Ahmad**, Khaulah Sulaiman "Thermal annealing effect on the optical, electrical and morphological properties of the PBTBT-C12:PC71BM blend films" [J SOL ENERG-T ASME](#), 137 (2015) 034503 (IF= 1.614)
35. Qayyum Zafar, **Zubair Ahmad**, Khaulah Sulaiman "PFODBT-MEHPPV-PC71BM ternary blend assisted platform as a photodetector" [SENSORS-BASEL](#), 15 (2015) 965 (IF= 2.245)
36. M I Azmeer, **Zubair Ahmad**, khaulah Sulaiman, A G Al-Sehemi "Humidity dependent electrical properties of an organic material DMBHPET" [MEASUREMENT](#), 61 (2015) 80 (IF= 1.484)
37. Fakhra Aziz, **Zubair Ahmad**, Shahino M Abdullah, khaulah Sulaiman, M. H. Sayyad, "Photovoltaic effect in single-junction organic solar cell fabricated using Vanadyl Phthalocyanine soluble derivative" [PIGM RESIN TECHNOL](#) 44 (2015) 26 (IF= 0.788)

38. K. W. Qadir, **Zubair Ahmad**, Khaulah "Performance enhancement of NiTsPc based photo-sensor using treated TiO<sub>2</sub> NPs film" [J NANOPART RES](#), 16 (2014) 2705 (IF=2.184)
39. **Zubair Ahmad**, Shahino M Abdullah, Dai Taguchi, khaulah Sulaiman, Takaaki Manaka, Mitsumasa Iwamoto, "Investigation of Carrier Transit Motion in PCDTBT by Optical SHG Technique" [LASER PHYS](#) 24 (2014) 105701 (IF=1.032)
40. M. L. Inche Ibrahim, **Zubair Ahmad**, Khaulah Sulaiman, S. V. Muniandy, "Combined influence of carrier mobility and dielectric constant on the performance of organic bulk heterojunction solar cells" [AIP ADV](#) 4 (2014) 057133 (IF= 1.524)
41. Shahino Mah Abdullah, **Zubair Ahmad** and Khaulah Sulaiman "A Solution-Based Temperature Sensor Using the Organic Compound CuTsPc" [SENSORS-BASEL](#), 14 (2014) 9878-9888 (IF= 2.245)
42. Adam Khan, Kh. S. Karimov, **Zubair Ahmad**, Mutabar Shah, Khaulah Sulaiman and S. A. Moiz " Pressure Sensitive Organic Sensor based on CNT-VO<sub>2</sub> (3f1) composite" [SAINS MALAYS](#), 43 (2014) 903-908 (IF=0.446)
43. **Zubair Ahmad**, shahino M Abdullah, Qayyum Zafar, Khaulah Sulaiman "Investigation of Charge Transport in Organic Polymer Donor/Acceptor Photovoltaic materials" [J MOD OPTIC](#), 61 (2014) 1730 (IF=1.008)
44. Mohamad Izzat Azmer, Qayyum Zafar, **Zubair Ahmad**, Khaulah Sulaiman, Khasan S. Karimov, "VOPcPhD based organic pressure sensor and displacement transducer" [SYNTHETIC MET](#), 191 (2014) 120 9 (IF=2.25)
45. Rupak Wasman, **Zubair Ahmad** and K. Sulaiman "Effect of the Shapes of Nanostructures on the Light Absorption in Organic Thin Films" [Journal of J MOD OPTIC](#), 61 (2014) 636 (IF=1.008)
46. Qayyum Zafar, **Zubair Ahmad**, Khaulah Sulaiman "A MEHPPV/VOPcPhD composite-based diode as a photodetector" [SENSOR ACTUAT A-PHYS](#) 206 (2014) 138 (IF=1.903)
47. **Zubair Ahmad**, Qayyum Zafar, khaulah sulaiman, Rizwan Akram and Khasan Karimov " A humidity sensing organic-inorganic composite for environmental monitoring" [SENSORS-BASEL](#) 13 (2013) 3615 (IF= 2.245)
48. **Zubair Ahmad**, Shahino Mah Abdullah, Khaulah Sulaiman, "Bulk heterojunction photodiode: To detect the whole visible spectrum" [MEASUREMENT](#) 46 (2013) 2073 (IF= 1.484)
49. **Zubair Ahmad**, MH Sayyad, FA Wahab, Khaulah Sulaiman, M. Shahid, J. A. Chaudry, M. A. Munawar and Fakhra Aziz "Enhancement of electronic and charge transport properties of NiPc by potassium-tetrasulpho group" [PHYSICA B](#) 413 (2013) 21 (IF= 1.319)
50. Khaulah Sulaiman, **Zubair Ahmad**, Muhamad Saipul Fakir, Fadilah Abd Wahab, Shahino Mah Abdullah and Zurianti Abd. Rahman "Organic Semiconductors: Applications in Solar Photovoltaic and Sensor Devices" [Materials Science Forum](#), 737(2013) 126
51. Muhamad Saipul Fakir, **Zubair Ahmad**, Khaulah Sulaiman, "Modification of Optical Band Gap and Surface Morphology of NiTsPc Thin Films" [CHINESE PHYS LETT](#), 12 (2012)126802 (IF= 0.947)
52. **Zubair Ahmad**,Mahdi Hasan Suhail, Issam Ibrahim Muhammad, Wissam khayer Al-Rawi khaulah sulaiman, Qayyum Zafar,Ahmad Sazali Hamzah,Zurina Shaamer, "MEH-PPV/Alq<sub>3</sub> based bulk heterojunction photodetector " [CHINESE PHYS B](#) 22 (2013) 130263 (IF= 1.603)
53. Shahino M. Abdullah, **Zubair Ahmad**, Fakhra Aziz, Khaulah Sulaiman, "Investigation of VOPcPhD as an acceptor material for bulk heterojunction solar cell" [ORG ELECTRON](#), 13 (2012) 2532 (IF= 3.827)
54. **Zubair Ahmad**, K. Sulaiman and M. H. Sayyad, "Programmable Nonvolatile Memory based on Gold Nanoparticles in Poly-methylsilsesquioxane Sol-Gel" [MICROELECTRON ENG](#), 99(2012)62 (IF= 1.197)
55. **Zubair Ahmad**, Shahino Mah Abdullah and Khaulah Sulaiman, "Temperature-sensitive chemical cell based on Nickel (II) phthalocyanine-tetrasulfonic acid tetrasodium salt" [SENSOR ACTUAT A-PHYS](#) 179 (2012) 146. (IF=1.903)
56. Fakhra Aziz, **Zubair Ahmad**, K. Sulaiman, M. R. Muhammad, M. H. Sayyad, Kh. S. Karimov, "Spectroscopic and Microscopic Studies on Vanadyl Phthalocyanine Thin Films for Electronic Photo- devices" [PHYSICA E](#), 44 (2012) 1815. (IF=2.0)
57. M. Shah, **Zubair Ahmad**, K. Sulaiman, K. S. Karimov, M. H Sayyad, "Carbon nanotubes' nanocomposite in humidity sensors" [SOLID STATE ELECTRON](#), 69 (2012) 18 (IF= 1.504)
58. Fakhra Aziz, M. H. Sayyad, Khaulah Sulaiman, B H Majlis, K. S. Karimov, **Zubair Ahmad** and G. Sugandi, "Influence of humidity conditions on the capacitive and resistive response of Al/VOPc/Pt co-planar humidity sensor" [MEAS SCI TECHNOL](#), 23 (2012)14001 (IF=1.433)
59. **Zubair Ahmad**, P.C. Doi, K. C. Aw, M. H. Sayyad, " Electrical characteristics of poly(methylsilsesquioxane) thin films for non-volatile memory" [SOLID STATE COMMUN](#) 151 (2011)297 (IF=1.897)
60. Kh. S. Karimov, M. Mahroof-Tahir, M. Saleem and **Zubair Ahmad** "Electrical Characteristics of Vanadium Complex Schottky Diodes" [PHYSICA B](#) 406 (2011) 3011 (IF=1.319)

61. **Zubair Ahmad**, M. H. Sayyad, M. Yaseen, K. C. Aw, M. M-Tahir, Mukhtar Ali "Multifunctional Sensor Based on 5,10,15,20-Tetrakis(3',5'-di-tertbutylphenyl)porphyrinatocopper(II)" [SENSOR ACTUAT B-CHEM](#) 155( 2011) 81 (IF=4.097)
62. **Zubair Ahmad**, M. H. Sayyad, M. Yaseen, M. Ali, "Investigation of 5,10,15,20-Tetrakis(3',5'-di-tert-butylphenyl)porphyrinatocopper(II) for Electronics Applications" World Academy of Science, Engineering and Technology, 76 (2010)811-814
63. Khasan S. Karimov, M. Saleem, **Zubair Ahmad**, M. Farooq, Z.A. Kariyeva, Adam Khan "Resistive and Capacitive Cu<sub>2</sub>O-PEPC Composite Based Displacement Transducer" [PHYS SCRIPTA](#) 82 (2010) 65702 (IF=1.126)
64. M. Shah, Khasan S. Karimov, **Zubair Ahmad**, M. H. Sayyad "Electrical Characteristics of Al/CNT/NiPc/PEPC/Ag Surface-Type Cells" [CHINESE PHYS LETT](#), 27(2010)106102 (IF=0.947)
65. **Zubair Ahmad**, M. H. Sayyad, M. Saleem, Khasan S. Karimov and Mutabar Shah "Frequency dependent electrical characteristics of Au/n-Si/CuPc/Au heterojunction" [ACTA PHYS POL A](#), 117(2010) 493 (IF=0.53)
66. **Zubair Ahmad**, Muhammad H. Sayyad, Kh. S. Karimov, "CuPc based organic-inorganic hetero-junction with Au electrodes" [Journal of Semiconductors](#), 31(2010)074002
67. Kh S Karimov, T A Qasuria, **Zubair Ahmad** "Impedance hygrometer based on cellulose and CuPc" [Journal of Semiconductors](#) 07/2010; 31
68. I. Murtaza, Kh S. Karimov, **Zubair Ahmad**, I. Qazi, M. Mahroof-Tahir, T. A. Khan, T. Amin, "Humidity sensitive organic field effect transistor" [Journal of Semiconductors](#) 05/2010; 31(5):054001
69. Kh S Karimov, T A Qasuria, **Zubair Ahmad**, "Impedance hygrometer based on natural organic material" [Eurasian Chemico-Technological Journal](#) 01/2010
70. Fakhra Aziz, M H Sayyad, Khasan S Karimov, M Saleem, **Zubair Ahmad**, S Mahmood Khan, "Characterization of vanadyl phthalocyanine based surface-type capacitive humidity sensors" [Journal of Semiconductors](#) 01/2010; 31
71. M. Saleem, M. H. Sayyad, Khasan S. Karimov, **Zubair Ahmad** "Fabrication and Investigation of the Charge/discharge Characteristics of Zinc/PVA-KOH/carbon Cell" [ACTA PHYS POL A](#) A 116 (2009) 1021 (IF=0.53)
72. Muhammad H. Sayyad, **Zubair Ahmad**, Kh. S. Karimov, M. Yaseen, Mukhtar Ali, "Photo organic field effect transistor based on a metallo-porphyrin" [J PHYS D APPL PHYS](#), 42 (2009)105112 (IF=2.721)
73. **Zubair Ahmad**, Muhammad H. Sayyad, "Extraction of electronic parameters of Schottky diode based on an organic semiconductor methyl-red" [PHYSICA E](#) 41(2009) 631 (IF=2.0)
74. Muhammad Saleem, Muhammad Hassan Sayyad, **Zubair Ahmad**, Khasan S. Karimov, Zioda Kariyeva, "Effects of orange dye concentration on electrochemical properties of zinc/orange dye aqueous solution/carbon cell" [KUWAIT J SCI ENG](#) 36 (2009) 77-86 (IF=0.312)
75. **Zubair Ahmad**, M. H. Sayyad "Current-voltage characteristics of a high rectification ratio organic Schottky diode" [OPTOELECTRON ADV MAT](#) 3 (2009) 85 (IF=0.394)
76. **Zubair Ahmad**, M. H. Sayyad, M. Saleem, Khasan S. Karimov, Mutabar Shah, "Humidity dependent characteristics of methyl-red thin film based Ag/methyl-red/Ag surface type cell" [PHYSICA E](#), 41(2008)18 (IF=2.0)
77. M. Saleem, M. H. Sayyad, K. S. Karimov, **Zubair Ahmad**, Mutbar Shah, M. Yaseen, I. Khokhar, M. Ali "Synthesis and photocapacitive studies of Cu(II) 5,10,15,20-tetrakis(4-isopropylphenyl) porphyrin" [J OPTOELECTRON ADV M](#), 10(2008)1468 (IF=0.429)
78. **Zubair Ahmad**, Muhammad H. Sayyad, Khasan S. Karimov, "BILAYER CAPACITIVE TYPE LIGHT AND HUMIDITY SENSORS" [J OVONIC RES](#) 4 (2008)91-95 (IF=0.488)
79. Muhammad Saleem, Muhammad H. Sayyad, Khasan S. Karimov, **Zubair Ahmad**, "FABRICATION AND CHARACTERIZATION OF Zn/PVA+IODINE AQUEOUS SOLUTION/CARBON CELL" [J OVONIC RES](#) 4 (2008)77-79 (IF=0.488)
80. M. H Sayyad, M. Shah, **Zubair Ahmad**, K. S. Karimov M. Saleem, M. Maroof Tahir, "Fabrication and study of NiPc thin film based surface type photocapacitors" [J OPTOELECTRON ADV M](#) s, 10( 2008)2805 (IF=0.429)
81. M. Saleem, M. H. Sayyad, **Zubair Ahmad**, Khasan S. Karimov and M. Shah "Study of Frequency Effect on the Interface Traps Density and Series Resistance of Au/n-Si/CuPc/Au, Heterostructure, 2008 American Institute of Physics 978-0-7353-0538-7 08 S23.00
82. M. Saleem, M. H. Sayyad, **Zubair Ahmad** and Kh. S. Karimov "Fabrication and investigation of the charge/ discharge characteristics of zinc/PVA-KOH-H<sub>2</sub>O-Iodine/carbon cell" [OPTOELECTRON ADV MAT](#) 1 (2007) 477 (IF=0.394)

## Chapters in Books

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1. "Production and Characterization of Nanoparticle Dispersions of Organic Semiconductors for Potential Applications in Organic Electronics" Chapter 9, In Morris, J. E., & Iniewski, K. (Eds.). Nanoelectronic Device Applications Handbook (Vol. 16). Boca Raton, London, New York: CRC Press.
2. "Poly (3-hexylthiophene) (P3HT), Poly( $\gamma$ -benzyl-L-glutamate) (PBLG) and Poly(methyl methacrylate) (PMMA) as Energy Harvesting Materials" in the Book on "Smart Polymer Nanocomposites-Energy harvesting, Self-healing and Shape memory" (Eds: Deepalekshmi Ponnamma, Kishor Kumar Sadasivuni, John-John Cabibihan and Mariam Ali S A Al-Maadeed) Publisher: Springer (In Press)

## Conference Presentations

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1. **Zubair Ahmad** and Farid Touati "Flexible thermo-electric generator using indium tin oxide for low power applications" 2nd International Sciences, Technology and Engineering Conference 20-23 April 2016, Penang, **Malaysia**
  2. **Zubair Ahmad** and Farid Touati "Study Of A Ternary Blend System For Bulk Heterojunction Thin Film Solar Cells" 5th International Conference on Functional Materials & Devices 2015 (ICFMD - 2015) 4 - 6 August 2015 Johor Bahru, **Malaysia**
  3. **Zubair Ahmad**, Shahino M Abdullah, Dai Taguchi, Khaulah Sulaiman, Takaaki Manaka, Mitsumasa Iwamoto "Carrier transit time and effect of PEDOT:PSS layer in PCDTBT:PC71BM bulk heterojunction solar cells" International Nanoscience and Nanotechnology for Next Generation (NaNONG), August 20-22, 2014, Firat University, Elazığ, **TURKEY**.
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