

гл.ас. д-р Цветан Емилов Иванов
забелязани цитирания без автоцитирания
общ брой - 232

1. Hardalov, Ch., Yanchev, I., Germanova, K., **Ivanov, Tzv.**, Samurkova, L., Kirov, K., Nigohosian, A., **Nonexponential deep level transient spectroscopy analysis of moderately doped bulk n-GaAs**, Journal of Applied Physics, Vol. 71, Iss 5, 1992, pp. 2270-2273.

1. A. O. Evwaraye, S. R. Smith, M. Skowronski, and W. C. Mitchel, *Observation of surface defects in 6H - SiC wafers*, Journal of Applied Physics 74, 5269 (1993)doi 10.1063/1.354269

2. S. Yang and C. D. Lamp, *Numerical fitting of transient decays in the high defect density limit*, Journal of Applied Physics 74, 6636 (1993); doi 10.1063/1.355105

3. C Eiche, M Fiederle, J Weese, D Maier, D Eblingand K W Benz, *Investigation of Deep Levels In X-Ray Detector Material With Photo Induced Current Transient Spectroscopy (Picts)*, Materials Research Society, Vol 302, 1993 ,p. 231 doi 10.1557/PROC-302-231

4. C. Eiche, D. Maier, J. Weese, J. Honerkamp, and K. W. Benz, *Comment on "Inverse problem for the nonexponential deep level transient spectroscopy analysis in semiconductor materials with strong disorder: Theoretical and computational aspects"* [J. Appl. Phys. 74, 291 (1993)], Journal of Applied Physics 75, 1242 (1994); doi 10.1063/1.356466

5. Ł Gelczuk, M. Abrowska-Szata, G Józwiak, *Distinguishing and identifying point and extended defects in DLTS measurements*, Materials Science (0137-1339). 2005, Vol. 23 Iss 3, pp. 625-641.

6. Jun Xia and Andreas Mandelis, *Broadening effects and ergodicity in deep level photothermal spectroscopyof defect states in semi-insulating GaAs: A combined temperature-, pulse-rate-, and time-domain study of defect state kinetics*, Journal of Applied Physics 105, 103712 (2009); doi 10.1063/1.3131673

7. Jun Xia, *Development of Deep-level Photo-thermal Spectroscopy and Photo-Carrier Radiometry for the Characterization of Semi-insulating Gallium Arsenide (SI-GaAs)*, University of Toronto, Department of Mechanical and Industrial Engineering, 2010. PhD Thesis

8. Arád Kósa, L'ubica Stuchlíková, Wojciech Dawidowski, Juraj Jakuš, Beata Sciana, Damian Radziejewicz, Damian Pucicki, Ladislav Harmatha, Jaroslav Kováč, Marek Tlaczala, *DLTFS Investigation of Ingaasn/Gaas Tandem Solar Cell*, Journal of Electrical Engineering, Volume 65, Issue 5 (Sep 2014)

9. A. Scheinemann and A. Schenk, *Defect Analysis with TCAD-based DLTS Simulation*, Integrated Systems Laboratory, ETH Zürich, Gloriastrasse 35, 8092 Zürich, Switzerland, EU project ATEMOX, (2014)

10. Kosa, A., Stuchlikova, L., Harmatha, L., Mikolášek M., Kováč J., Ściana B., Dawidowski W., Radziejewicz, D., Tlaczala, M., *Defect distribution in InGaAsN/GaAs multilayer solar cells*, Solar Energy, 2016, vol. 132, pp.587 - 590. DOI: 10.1063/1.351125

2. Dimitrov D.A., Zahariev A.L., Georgiev J.K., Kolev G.A., Petrinski J.N., **Ivanov Tz.**, **Thin film platinum resistance thermometers: calibration and mathematical description of T(R) function** 1994, Cryogenics, (6) 487-489

1. K.Nara, H.Kato, M.Okaji, *Derivation of optimized calibration procedures for practical thermometers* Cryogenics vol 35, Iss 5, 1995, pp. 291-295doi 10.1016/0011-2275(95)95346-G

2. Nina B. Bogdanova, Bonka M. Terzijska, *A description of cryogenic temperature sensor characteristicsby the weighted orthonormal polynomial expansion method: Germanium and platinum thermometer calibration test data approximation*, Review of Scientific Instruments 67, 3885 (1996)

3. Nina B. Bogdanova, Bonka M. Terzijska, *Comparative results for germanium and platinum thermometer calibration test data approximation*, Review of Scientific Instruments 68, 3766 (1997); doi 10.1063/1.1148024

4. A. Osipowicz, M. Härting, M.Hempel, D.T.Britton, W. Bauer-Kugelmann, W. Triftshäuser, *Characterisation of RF-sputtered platinum films from industrial production plants using slow positrons*, Applied Surface Science, Vol. 149, Iss. 1-4, 1 1999, pp. 198-203 doi 10.1016/S0169-4332(99)00200-7

5. G. Brauer, W. Anwand, E.-M. Nicht, J. Kuriplach, I. Procházka, F. Bečvář, A. Osipowicz, and P. G. Coleman, *Characterization of rf-sputtered platinum films by positron annihilation spectroscopy*, *Phys. Rev. B* 62, 5199, 2000 doi 10.1103/PhysRevB.62.5199
6. Angelina Stoyanova-Ivanova, Stanimira Terzieva, Boris Shivachev, Valdek Mikli, Latinaka Vladimirova, *Synthesis and superconducting properties of Nd_{0.33}Eu_{0.08}Gd_{0.58}Ba₂Cu₃O_z materials*, *Cent. Eur. J. Phys.*, 6(1), 2008, pp. 76-79 DOI: 10.2478/s11534-007-0044-3
7. Shrestha, P., Gu, D., Tran, N.H., Tapily, K., Baumgart, H., Namkoong, G., *Investigation of Volmer-Weber growth during the nucleation phase of ALD platinum thin films and template based platinum nanotubes*, (2010) *ECS Transactions*, 33 (2), pp. 127-134.
8. Chen, G., Gao, X., Zhang, S., Chen, Q., Tang, L., Lan, Y., *Development of an automatic calibration device for high-accuracy low temperature thermometers* (2010) *Science China Technological Sciences*, 53 (9), pp. 2404-2407.
9. Stoyanova-Ivanova, A., Georgieva, St., Nedeltcheva, T., Dimova, L., Shivachev, B., *Variation of the unit cell parameters of the REBa₂Cu₃O_y (RE = Gd, Er) ceramics in function of the oxygen content* 2011 *Bulgarian Chemical Communications* 43 (2), pp. 320-324
10. Georgieva, S., Stoyanova-Ivanova, A., Nedeltcheva, T. *Influence Of The Alkaline Electrolyte Bath On The Oxygen Content Of Reba₂cu₃oy (Re = Y, Gd) Superconducting Ceramics*, *Journal of Chemical Technology & Metallurgy*. 2013, Vol. 48 Issue 6, pp. 601-606
11. Mamun, M.A., Gu, D., Baumgart, H., Elmustafa, A.A., *Nanomechanical properties of platinum thin films synthesized by atomic layer deposition*, *Surface and Coatings Technology* Volume 265, 15 March 2015, Pages 185-190
12. P. M. Gordo, M. F. Ferreira Marques, M. T. Vieira, *Positron Annihilation Study on Nanocrystalline Copper Thin Films Doped with Nitrogen*, *Materials Design and Applications*, Springer, pp 15-24, 2017 DOI 10.1007/978-3-319-50784-2_2

5. Angelis C.T., Dimitriadis C.A., Samaras I., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz.E., Study of leakage current in n-channel and p-channel polycrystalline silicon thin-film transistors by conduction and low frequency noise measurements** 1997, *Journal of Applied Physics*, (8) 4095-4101

1. Tae-Kyung Kim, Gi-Bum Kim, Byung-Il Lee, Seung-Ki Joo, *The effects of electrical stress and temperature on the properties of polycrystalline silicon thin-film transistors fabricated by metal induced lateral crystallization*, *IEEE Electron Device Letters*, Vol 21, Iss 7, pp. 347 - 349, 2000
2. Chang-Ho Tseng, Ching-Wei Lin, Ting-Kuo Chang, Huang-Chung Cheng, and Albert Chin, *Effects of Excimer Laser Dopant Activation on Low Temperature Polysilicon Thin-Film Transistors with Lightly Doped Drains*, *Electrochem. Solid-State Lett.* 2001 volume 4, issue 11, G94-G97, doi: 10.1149/1.1405997
3. Ching-Lin Fanz and Mao-Chieh Chen, *Correlation Between Electrical Characteristics and Oxide/Polysilicon Interface Morphology for Excimer-Laser-Annealed Poly-Si TFTs*, *J. Electrochem. Soc.*, vol 149, iss 10, G567-G573, 2002
4. P. Servati and A. Nathan, *Modeling of the static and dynamic behavior of hydrogenated amorphous silicon thin-film transistors*, *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films* 20, 1038, 2002
5. A. Nathan, P. Servati, K.S. Karim, *TFT circuit integration in a-Si:H technology*, 23rd *International Conference on Microelectronics, MIEL2002*, 2002 DOI: 10.1109/MIEL.2002.1003157
6. P. Servati and A. Nathan, *Modeling of the reverse characteristics of a-Si:H TFTs*, *IEEE Transactions on Electron Devices*, Vol 49, Is 5, pp. 812 - 819, 2002
7. George C. Yu, and S. K. Yen, *The pH Response Drift of Thermally Grown Titanium Oxide Thin Films*, *J. Electrochem. Soc.*, vole 150, iss 3, E190-E196, 2003
8. A. Nathan; P. Servati; K.S. Karim; D. Striakhilev; A. Sazonov, *Thin film transistor integration on glass and plastic substrates in amorphous silicon technology*, *IEE Proceedings - Circuits, Devices and Systems*, Vol 150, Iss 4, p. 329 – 338, 2003 DOI: 10.1049/ip-cds:20030554
9. A. Nathan, A. Kumar, K. Sakariya, P. Servati, K.S. Karim, D. Striakhilev, A. Sazonov, *Amorphous silicon back-plane electronics for OLED displays*, *IEEE Journal of Selected Topics in Quantum Electronics*, Vol 10, Iss 1, pp. 58 - 69, 2004
10. Handong Li, *Nano-structured PECVD Silicon Films and Their Device Applications*, *The Pennsylvania State University, The Graduate School*, PhD Thesis 2004

12. S Malik, A K Ray and S Bruce, *1/f noise in Langmuir–Blodgett films on silicon*, 2005 *Semicond. Sci. Technol.* 20 453
13. Ching-Lin Fan, and Tsung-Hsien Yang, *Effects of Source/Drain Activation on Channel-Length for Excimer-Laser-Crystallized Poly-Si Thin-Film Transistors*, *Electrochem. Solid-State Lett.*, vol 9, iss 2, H8-H11, 2006
14. Joerg Lehnert, Wei Zhao, *High voltage protection in active matrix flat-panel imagers*, *Proceedings Volume 6142, Medical Imaging 2006: Physics of Medical Imaging*; 61420S (2006); doi: 10.1117/12.655611
15. Sofa Kasar, John Rowlands, Kenkichi Tanioka and Arokia Nathan., *Appication of Disordered Semiconductors in Modern Electronics: Selected Examples*, p.149, in *Charge Transport in Disordered Solids with Applications in Electronics*, Sergei Baranovski (Editor), Wiley 2006, ISBN: 978-0-470-09504-1
16. W. J. Wu, R. H. Yao, S. H. Li, Y. F. Hu, W. L. Deng, X. R. Zheng, *A Compact Model for Polysilicon TFTs Leakage Current Including the Poole–Frenkel Effect*, *IEEE Transactions on Electron Devices*, Vol 54, Iss 11, pp. 2975 - 2983, 2007
17. Ming-Jui Yang, Chao-Hsin Chien, Yi-Hsien Lu, Guang-Li Luo, Su-Ching Chiu, Chun-Che Lou, Tiao-Yuan Huang, *High-Performance and Low-Temperature-Compatible p-Channel Polycrystalline-Silicon TFTs Using Hafnium-Silicate Gate Dielectric*, *IEEE Electron Device Letters*, Vol 28, Iss 10, pp. 902 - 904, 2007
18. Shin-Hee Han, Il-Suk Kang, Nam-Kyu Song, Min-Sun Kim, Jang-Sik Lee, Seung-Ki Joo, *The Reduction of the Dependence of Leakage Current on Gate Bias in Metal-Induced Laterally Crystallized p-Channel Polycrystalline-Silicon Thin-Film Transistors by Electrical Stressing*, *IEEE Transactions on Electron Devices*, Vol 54, Iss 9, pp. 2546 - 2550, 2007
19. L.Michalas, M.Exarchos, G.J.Papaioannou, D.N.Kouvatsos, A.T.Voutsas, *An experimental study of the thermally activated processes in polycrystalline silicon thin film transistors*, *Microelectronics Reliability*, Vole 47, Isse 12, pp. 2058-2064, 2007
20. Hyun-Sang Park, Woocheul Lee, Seung-Hee Kuk and Min-Koo Han, *Leakage Current-Free Pixel Structure Using a Blocking Transistor for Active-Matrix Display*, *ECS Trans.* vol 8, iss 1, pp. 65-70, 2007
21. Hyun Jung Lee, *Top-Gate Nanocrystalline Silicon Thin Film Transistors*, University of Waterloo, PhD Thesis, 2008
22. R. B. M. Cross, Maria Merlyne De Souza, Steve C. Deane, Nigel D. Young, *A Comparison of the Performance and Stability of ZnO-TFTs With Silicon Dioxide and Nitride as Gate Insulators*, *IEEE Transactions on Electron Devices*, Vol 55, Iss. 5, pp. 1109 - 1115, 2008
23. Ming-Jui Yang, Chao-Hsin Chien, Yi-Hsien Lu, Chih-Yen Shen, Tiao-Yuan Huang, *Electrical Properties of Low-Temperature-Compatible P-Channel Polycrystalline-Silicon TFTs Using High- κ Gate Dielectrics*, *IEEE Transactions on Electron Devices*, Vol 55, Is 4, pp. 1027 - 1034, 2008
24. L. Michalas, G. J. Papaioannou, D. N. Kouvatsos, and A. T. Voutsas, *Role of Bandgap States on the Electrical Behavior of Sequential Lateral Solidified Polycrystalline Silicon TFTs*, *J. Electrochem. Soc.*, vol 155, iss 1, H1-H5, 2008
25. Loukas Michalas, George Papaioannou and Apostolos Voutsas, *A DLTS Study of Band Gap States in SLS Poly-Si TFTs*, *ECS Trans.* vol 16, is 9, pp 79-84, 2008
26. Hyun-Sang Park, Hee-Sun Shin, Woocheul Lee, Seung-Hee Kuk, Yongtaek Hong, Min-Koo Han, *A New Thin-Film Transistor Pixel Structure Suppressing the Leakage Current Effects on AMOLED*, *IEEE Electron Device Letters*, Vol 30, Iss 3, pp. 240 - 242, 2009
27. Hung, Min-Feng; Wu, Yung-Chun; Chiang, Ji-Hong; Chen, Jiang-Hung; Chen, Lun-Chun, *Fabrication and Characterization of Twin Poly-Si Thin Film Transistors EEPROM with a Nitride Charge Trapping Layer*, *Journal of Nanoscience and Nanotechnology*, Volume 11, Number 12, December 2011, pp. 10419-10423
28. Lin, C.-S., Chen, Y.-C., Chang, T.-C., Li, H.-W., Chen, S.-C., Jian, F.-Y., Chuang, Y.-S., Chen, T.-C., Chen, Y.-C., Tai, Y.-H. *Analysis of anomalous capacitance induced by TAGIDL in p-channel LTPS TFTs* (2010) *Journal of the Electrochemical Society*, 157 (11), pp. H1003-H1007.
29. Huang, J.-K., Zheng, X.-R., Deng, W.-L., Huanan Ligong Daxue Xuebao, *Leakage current and noise model of polysilicon thin-film transistors* (2010), *Journal of South China University of Technology (Natural Science)*, 38 (10), pp. 24-29+35.
30. Toyota, Y., Matsumura, M., Suzumura, I., Kaitoh, T., Gotoh, J., Ohkura, M., *High On/Off-current ratio in bottom-gated microcrystalline-silicon thin-film transistors with vertical offset structure* (2010) *IEEE Electron Device Letters*, 31 (9), art. no. 5535109, pp. 975-977.

31. Bae, C., Kim, D., Moon, S., Choi, T., Kim, Y., Kim, B.S., Lee, J.-S., Shin, H., Moon, J. Aging dynamics of solution-processed amorphous oxide semiconductor field effect transistors (2010) *ACS Applied Materials and Interfaces*, 2 (3), pp. 626-632.
32. Chia-sheng Lin, *Electrical Analysis and Physical Mechanisms of Low-Temperature Polycrystalline-Silicon Thin Film Transistors and Nonvolatile Memory for System-on-Panel and Flexible Displays*, National Sun Yat-sen University, Department of Electrical Engineering, PhD Thesis, 2011
33. Chang, J.-J., Chang-Liao, K.-S., Wang, T.-K., Wu, Y.-C., Lin, K.-C., Chen, C.-Y., Chen, Y.-M., Hung, M.-F. Electrical degradation and recovery of low-temperature polycrystalline silicon thin-film transistors in polycrystalline silicon plasma process 2011 *IEEE Transactions on Electron Devices* 58 (8), art. no. 5783902, pp. 2448-2455
34. Nakashima, A., Sagawa, Y., Kimura, M. Temperature sensor using thin-film transistor *IEEE Sensors Journal* 11 (4), art. no. 5582150, pp. 995-998, 2011
35. Chia-sheng Lin, *Electrical Analysis and Physical Mechanisms of Low-Temperature Polycrystalline-Silicon Thin Film Transistors and Nonvolatile Memory for System-on-Panel and Flexible Displays*, 2011, National Sun Yat-sen University, Taiwan, Department of Electrical Engineering Institute, Dissertation PhD
36. Lai, Ming-Hui, *Improved performance and reliability of MIC LTPS-TFTs using simply chemical oxide and drive-in nickel induced crystallization*, 2011, Национален Chia Tung University, Taiwan, Катедрa по материалознание и инженеринг, Дисертация PhD
37. Byun, C.W., Son, S.W., Lee, Y.W., Joo, S.K., Reduced trap-state density of Ni-silicide seed-induced crystallized poly-Si TFTs by gettering, (2012) *IEEE Electron Device Letters* 33 (8), art. no. 6230602, pp. 1141-1143
38. Son, S.W., Byun, C.-W., Lee, S.-J., Yoon, S.-J., Joo, S.-K., Effect of lightly doped drain structure on p-channel metal induced lateral crystallization thin film transistors, (2012) *Journal of Nanoscience and Nanotechnology* 12 (4), pp. 3195-3199.
39. Byun, C.W., Son, S.W., Lee, Y.W., Kang, H.M., Park, S.A., Lim, W.C., Li, T., Joo, S.K., Improvement of electrical performance of metal-induced laterally crystallized polycrystalline silicon thin-film transistors, (2012 *Journal of the Electrochemical Society*) 159 (4), pp. J115-J121
40. Hung, Min-Feng, *3D IC Applicable Nonvolatile Memories with Nanostructures*, 2012, Национален Tsing Хуа университет, Taiwan, Катедрa по системно инженерство и наука, Дисертация PhD
41. Chang, Jiun-Jye, *Plasma Process Induced Damage Effect on Low Temperature Poly-Silicon Thin Film Transistors*, 2012, Национален Tsing Хуа университет, Taiwan, Катедрa по системно инженерство и наука, Дисертация PhD
42. Byun, C.W., Son, S.W., Lee, Y.W., Park, J.H., Takaloo, A.V., Joo, S.K., Leakage current suppression on metal-induced laterally crystallized polycrystalline silicon thin-film transistors by asymmetrically deposited Nickel, *Japanese Journal of Applied Physics* 52 (10 PART2), art. no. 10MA01, 2013.
43. Son S.W., Byun C.W., Lee Y.W., Park J.H., Joo S.K., Tilted Back Exposure for Lightly Doped Drain Structure in Metal Induced Lateral Crystallization Poly Si Thin Film Transistors, *Journal of Nanoscience and Nanotechnology*, Volume 13, Number 10, October 2013, pp. 7070-7072(3)
44. M. Lorenz, *ZnO-basierte Metall-Isolator-Halbleiter Feldeffekttransistoren mit Wolframoxid als Gatedielektrikum*, Dissertation, Der Fakultat für Physik und Geowissenschaften der Universität, Leipzig, 2013
45. Ciocchini, N., Palumbo, E., Borghi, M., Annunziata, R., Ielmini, D., Modeling resistance instabilities of set and reset states in phase change memory with Ge-rich GeSbTe, *IEEE Transactions on Electron Devices*, (2014), vol. 61 (6), 6798727, pp. 2136 - 2144.
46. Chen, Y.H., Ma, W.C.Y., Chao, T.S. High-performance poly-Si TFT with ultra-thin channel film and gate oxide for low-power application, *Semiconductor Science and Technology* Volume 30, Issue 10, 1 September 2015, Article number 105017
47. Hongyu He, Wanling Deng, Yuan Liu, Xinnan Lin, Xueren Zheng, Shengdong Zhang, Simple leakage current and 1/f noise expressions for polycrystalline silicon thin-film transistors, *IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC)*, 2016, DOI: 10.1109/EDSSC.2016.7785269
48. Hyung Yoon Kim, Ki Hwan Seok, Hee Jae Chae, Sol Kyu Lee, Yong Hee Lee, Seung Ki Joo, Effect of nickel silicide gettering on metal-induced crystallized polycrystalline-silicon thin-film transistors, *Solid-State Electronics*, Vol 132, pp 73-79, 2017, DOI 10.1016/j.sse.2017.03.011, Elsevier

49. Chun-Hao Tu, *Fabrication and Characterization of Novel Low Temperature Polycrystalline Silicon Thin-Film Transistors and Advanced Nonvolatile Memory*, Taiwan, National Chiao Tung University, Department of Electronics Engineering and Institute of Electronics, PhD Thesis, 2007

50. Chi-Wen Chen, *Study on Array Technology of Thin-Film Transistor Active Matrix Panel*, Institute of Electronics, College of Electrical Engineering and Computer Science, National Chiao Tung University, PhD Dissertation, Taiwan, 2005

6. Zhivkov I., Spassova E., Danev G., Andreev S., **Ivanov Tz.**, **Vacuum deposited copper phthalocyanine thin films** - Structure and surface morphology 1998, *Vacuum*, (2) 189-192

1. L. Grządziel, J. Żak, J. Szuber, *On the correlation between morphology and electronic properties of copper phthalocyanine (CuPc) thin films*, *Thin Solid Films*, Vol 436, Iss 1, 2003, Pages 70-75, doi 10.1016/S0040-6090(03)00511-X

2. Michael J Cook, *Phthalocyanine Thin Films: Deposition and Structural Studies*, In book: *The Porphyrin Handbook*, pp.37-127, 2003, DOI: 10.1016/B978-0-08-092391-8.50008-X

3. Gianluigi Maggioni, Sara Carturan, Michele Tonezzer, Marco Bonafini, Alberto Vomiero, Alberto Quaranta, Chiara Maurizio, Francesco Giannici, Antonino Scandurra, Francesco D'Acapito, Gianantonio Della Mea, and Orazio Puglisi, *Effects of Heat Treatments on the Properties of Copper Phthalocyanine Films Deposited by Glow-Discharge-Induced Sublimation*, *Chem. Mater.*, 2006, 18 (17), pp 4195–4204 DOI: 10.1021/cm060303d

4. Yaser Açıkbay, Murat Evyapan, Tanju Ceyhan, Rifat Çapan, Özer Bekaroğlu, *Characterisation of Langmuir–Blodgett films of new multinuclear copper and zinc phthalocyanines and their sensing properties to volatile organic vapours*, *Sensors and Actuators B: Chemical*, Vol 123, Is 2, 2007, pp 1017-1024, doi 10.1016/j.snb.2006.11.004

5. Fengxia Wang, Xianfeng Qiao, Tao Xiong, Dongge Ma, *The role of molybdenum oxide as anode interfacial modification in the improvement of efficiency and stability in organic light-emitting diodes*, *Organic Electronics*, Vol 9, Iss 6, 2008, pp. 985-993

6. M. Krzywiecki, L. Grządziel, L. Ottaviano, P. Parisse, S. Santucci, J. Szuber, *XPS study of air exposed copper phthalocyanine ultra-thin films deposited on Si(111) native substrates*, *Materials Science-Poland*, Vol. 26, No. 2, 2008, pp. 287-294

7. M. Krzywiecki, L. Ottaviano, L. Grządziel, P. Parisse, S. Santucci, J. Szuber, *Influence of substrate doping on the surface chemistry and morphology of Copper Phthalocyanine ultra thin films on Si (111) substrates*, *Thin Solid Films*, Volume 517, Issue 5, 2009, pp. 1630-1635

8. Kim, Dong Hyun; Kang, Young Goo; Kang, Young Jin; *Volatile Organic Compounds (VOCs) Sensing Properties of Thin Films Based on Copper phthalocyanine and Dilithium phthalocyanine Compounds*, *Journal of the Korean Society of Safety*, Vol 28, Iss 2, 2013, pp.37-41, DOI : 10.14346/JKOSOS.2013.28.2.037

9. *Effects of deposition rate on the properties of cupc thin films and solar cells*, Li, S., Chen, J., Zhou, X., *Japanese Journal of Applied Physics* 52 (5 PART 2), art. no. 05DB11, 2013

10. Joseph B., *Some physical and topological studies on phthalocyanine thin films – CuPc, CoPc and NiPc*, Mahatma Gandhi University, Faculty of Science, India, 28-Jan-2013, PhD Thesis

11. Jae-Hyun Lee, Min-Hoi Kim, *Thermal stability of devices with molybdenum oxide doped organic semiconductors*, *Organic Electronics*, Volume 28, January 2016, Pages 172–177

12. Lee, J.H., Kim, M.H., *Thermal stability of devices with molybdenum oxide doped organic semiconductors*, *Organic Electronics: physics, materials, applications*, , 2016 vol. 28, pp. 172 – 177, Doi:10.1016/j.orgel.2015.10.034

13. *Otimização de transistores de efeito de campo orgânicos baseados em ftalocianinas metálicas*, Diana Jastrombek, Universidade Federal do Paraná, Curitiba, Brasil, 2016, PhD Thesis

7. Dimitriadis C.A., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz.E.** **Conduction and low-frequency noise in high temperature processed polycrystalline silicon thin film transistors** 1998, *Journal of Applied Physics*, (3) 1469-1475

1. Seiichiro Higashi, Daisuke Abe, Yasushi Hiroshima, Kazuyuki Miyashita, Takahiro Kawamura, Satoshi Inoue and Tatsuya Shimoda, *High-Quality SiO₂/Si Interface Formation and Its*

Application to Fabrication of Low-Temperature-Processed Polycrystalline Si Thin-Film Transistor, 2002 *Jpn. J. Appl. Phys.* vol. 41, No 6A 3646 doi: 10.1143/JJAP.41.3646

2. D. Rigaud, M. Valenza, J. Rhayem, *Low frequency noise in thin film transistors*, *IEE Proceedings - Circuits, Devices and Systems*, Vol 149, Iss 1, 2002, pp. 75-82, DOI: 10.1049/ip-cds:20020063

3. Bakker, J.P.R., *Noise and degradation of amorphous silicon devices*, Utrecht University, PhD Thesis, (2003)

4. L. E. Antonu, M. Koniczek, J. McDonald, Y. El-Mohri, Q. Zhao, M. Behravan, *Noise Characterization of Polycrystalline Silicon Thin Film Transistors for X-ray Imagers Based on Active Pixel Architectures*, *Symposium A – Amorphous and Polycrystalline Thin-Film Silicon Science and Technology*, Vol 1066, A19-03, 2008, doi: 10.1557/PROC-1066-A19-03

5. Mahdokht Behravan, David Todd Story, *1/f Noise Characterization of n- and p-Type Polycrystalline-Silicon Thin-Film Transistors*, *IEEE Transactions on Device and Materials Reliability*, Vol 9, Iss 3, 2009, pp. 372 – 378

6. W. Deng, P. Liang and C. Wei, *Low frequency noise modeling of polycrystalline silicon thin-film transistors*, *The European Physical Journal - Applied Physics*, Vol 48, Iss 1, 10303, 2009, doi: 10.1051/epjap/200911

7. Kimura, M., *Extraction of trap densities in poly-Si thin-film transistors fabricated by solid-phase crystallization and dependence on temperature and time of post annealing* (2010) *Solid-State Electronics*, 54 (12), pp. 1500-1504.

8. Kimura, M., *Dependence of trap density in SPC poly-Si TFT on temperature and time of post annealing* (2010) *IDW'10 - Proceedings of the 17th International Display Workshops*, 2, pp. 779-780.

9. Kimura, M., *Extraction of trap densities in entire bandgap of poly-Si thin-film transistors fabricated by solid-phase crystallization and dependence on process conditions of post annealing*, *Solid-State Electronics* 63 (1), pp. 94-99, 2011

10. Wu, Chun-Yu., *Study on the Characterizations and Applications of Polycrystalline Silicon Nanowire Devices*, 2012, Национален Chia Tung University, Taiwan, Electronics Research Institute, Дисертация PhD

11. Lee, Chen-Ming, *A Study on Carbon Doping Technology and High-Performance Poly-Si Nanowire TFTs*, 2011, Национален Chia Tung University, Taiwan, Electronics Research Institute, Дисертация PhD

12. M., Hiroshima, *Evaluation of thermal annealing before and after formation of gate insulator films by extracting trap densities for SPC Poly-Si TFTs*, Kimura, Y., *IEEE Electron Device Letters* 34 (2) , art. no. 6407726 , pp. 256-258, 2013

8. F.V.Farmakis, C.A.Dimitriadis, J.Brini, G.Kamarinos, V.K.Gueorguiev, **Tz.E.Ivanov**, **Interface state generation during electrical stress in n-channel undoped hydrogenated polysilicon thin film transistors**, *Electronics Letters*, 34, no.2, (1998), 2356-2357

1. Kow Ming Chang, Yuan Hung Chung, Gin Ming Lin, Chi Gun Deng, Jian Hong Lin, *Enhanced degradation in polycrystalline silicon thin-film transistors under dynamic hot-carrier stress*, *IEEE Electron Device Letters*, Vol 22, Iss 10, 2001, pp.475-477

2. Y. Toyota, T. Shiba, M. Ohkura, *A new model for device degradation in low-temperature N-channel polycrystalline silicon TFTs under AC stress*, *IEEE Transactions on Electron Devices*, Vol 51, Iss 6, 2004

3. Boon Kiat Lim, Hun Sub Park, Lian Kon Chin, and Sun Woong Woo, *Bias-temperature stressing analysis on the stability of an ultrathin Ta diffusion barrier*, *Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena* 22, 1844 (2004)

4. Y. Toyota, T. Shiba, M. Ohkura, *Effects of the timing of AC stress on device degradation produced by trap states in low-temperature polycrystalline-silicon TFTs*, *IEEE Transactions on Electron Devices*, Vol 52, Iss 8, 2005, pp. 1766 – 1771

5. Yung-Chun Wu, Ting-Chang Chang, Po-Tsun Liu and Li-Wei Feng, *Degradation Behaviors of Trigate Nanowires Poly-Si TFTs with NH₃ Plasma Passivation under Hot-Carrier Stress*, *Electrochem. Solid-State Lett.* 2007 volume 10, issue 8, H235-H238, doi: 10.1149/1.2746500

6. Yung-Chun Wu, Hung-Bin Chen, Li-Wei Feng, Ting-Chang Chang, Po-Tsun Liu, Chun-Yen Chang, *Reliability study on tri-gate nanowires poly-Si TFTs under DC and AC hot-carrier stress*, 7th IEEE Conference on Nanotechnology, 2007. IEEE-NANO 2007, DOI: 10.1109/NANO.2007.4601298

7. Kuo-Dong Huang, Jyi-Tsong Lin and Bao-Tang Jheng, *Characteristics and reliability of a polysilicon thin-film transistor with a multi-trenched body*, 2008 *Semicond. Sci. Technol.* 23 105010

8. Chih-Pang Chang, *Investigation of Electrical Properties, Reliability and Uniformity Issues in Metal-Induced Lateral Crystallization Poly-Si TFTs*, Department of Material Science and Engineering College of Engineering, National Chiao Tung University, PhD Thesis, Taiwan, 2009

9. Angelis C.T., Dimitriadis C.A., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz.E., Low-frequency noise spectroscopy of polycrystalline silicon thin-film transistors** 1999, *IEEE Transactions on Electron Devices*, vol.46 (5) 968-974.

1. Mutsumi Kimura, Ryoichi Nozawa, Satoshi Inoue, Tatsuya Shimoda, Basil On-Kit Lui, Simon Wing-Bun Tam and Piero Migliorato, *Extraction of Trap States at the Oxide-Silicon Interface and Grain Boundary for Polycrystalline Silicon Thin-Film Transistors*, 2001 *Jpn. J. Appl. Phys.* 40 5227

2. Mutsumi Kimura, Satoshi Inoue, Tatsuya Shimoda and Toshiyuki Sameshima, *Device Simulation of Carrier Transport through Grain Boundaries in Lightly Doped Polysilicon Films and Dependence on Dopant Density*, 2001 *Jpn. J. Appl. Phys.* 40 5237

3. D. Rigaud, M. Valenza, J. Rhayem, *Low frequency noise in thin film transistors*, *IEE Proceedings - Circuits, Devices and Systems*, Vol 149, Iss 1, 2002, pp. 75-82, DOI: 10.1049/ip-cds:20020063

4. M. Rahal, M. Lee, A.P. Burdett, *Flicker noise in gate overlapped polycrystalline silicon thin-film transistors*, *IEEE Transactions on Electron Devices*, Vol 49, Iss 2, pp. 319 - 323, 2002

5. Mutsumi Kimura, Simon W.-B. Tam, Satoshi Inoue and Tatsuya Shimoda, *Extraction of Trap Densities at Front and Back Interfaces in Thin-Film Transistors*, 2004 *Jpn. J. Appl. Phys.* 43 71

6. Jung Il Lee, "Barrier height dependence of low-frequency noise in poly-Si thin film transistors", *Proc. SPIE 5470, Noise in Devices and Circuits II*, (2004); doi: 10.1117/12.547191;

7. Hyungdo Nam, Hae-Suk Yang, Jungil Lee, Alain Chovet, Bela Szentpali, Eunkyung Kim, *Low-frequency noise parameter extraction in poly-Si thin-film transistors*, *Proceedings Volume 5844, Noise in Devices and Circuits III*; (2005); doi: 10.1117/12.609592

8. Mahdokht Behravan, David Todd Story, *1/f Noise Characterization of n- and p-Type Polycrystalline-Silicon Thin-Film Transistors*, *IEEE Transactions on Device and Materials Reliability*, Vol 9, Iss 3, 2009, pp. 372 – 378

9. W. Deng, P. Liang and C. Wei, *Low frequency noise modeling of polycrystalline silicon thin-film transistors*, *The European Physical Journal - Applied Physics*, Vol 48, Iss 1, 10303, 2009, doi: 10.1051/epjap/200911

10. Mohammad Hadi Izadi, *Multi-mode Pixel Architectures for Large Area Real-Time X-ray Imaging*, University of Waterloo, PhD Thesis, 2010

11. Hsin-Hui Hu, Yong-Ren Jheng, Yung-Chun Wu, Min-Feng Hung, Guo-Wei Huang, *Low-Frequency Noise in Poly-Si TFT SONOS Memory With a Trigate Nanowire Structure*, *IEEE Electron Device Letters* Vol 32, Iss. 12, pp. 1698 - 1700, 2011

12. Kimura, M., Yoshino, T., Harada, K. *Complete extraction of trap densities in poly-Si thin-film transistors* (2010) *IEEE Transactions on Electron Devices*, 57 (12), art. no. 5590286, pp. 3426-3433.

13. Kim, Y.M., Jeong, K.S., Yun, H.J., Yang, S.D., Lee, S.Y., Kim, M.J., Kwon, O.S., Lee, G.W., *Electrical characteristic analysis using low-frequency noise in low-temperature polysilicon thin film transistors*, (2012) *Journal of Nanoscience and Nanotechnology* 12 (7) , pp. 5532-5536

14. Lee, K., Son, Y., Lee, J., Lee, J., Jang, S., Park, J., Kim, S., Shin, H. , *Density of states extraction in bulk channel area of a-Si:H thin-film transistors by using low-frequency noise analysis*, (2012) *Advanced Materials Research* 2012 378-379 , pp. 642-645.

15. Hu, H.H., Huang, Y.R, *Low-frequency noise in 2-bit poly-Si TANOS flash memory*, *Japanese Journal of Applied Physics* Volume 54, Issue 1, 1 January 2015, Page 014101

16. Wu, C., Huang, X., Lu, H. , Yu, G., Ren, F., Chen, D., Zhang, R., Zheng, Y., *Study on interface characteristics in amorphous indium-gallium-zinc oxide thin-film transistors by using low-frequency noise and temperature dependent mobility measurements* *Solid-State Electronics* Volume 109, July 2015, Article number 6770, Pages 37-41

10. Farmakis F.V., Dimitriadis C.A., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz.E., Photon emission and related hot-carrier effects in polycrystalline silicon thin-film transistors** 1999, *Journal of Applied Physics*, (9) 6917-6919

1. Min Xue, Mingxiang Wang, Zhen Zhu, Dongli Zhang, Man Wong, *Degradation Behaviors of Metal-Induced Laterally Crystallized n-Type Polycrystalline Silicon Thin-Film Transistors Under DC Bias Stresses*, *IEEE Transactions on Electron Devices* Vol 54, Iss 2, 2007, pp. 225 - 232

2. Feng-Tso Chien, Chien-Nan Liao, Chin-Mu Fang, Yao-Tsung Tsai, *High-Performance Double-Channel Poly-Silicon Thin-Film Transistor With Raised Drain and Reduced Drain Electric Field Structures*, *IEEE Transactions on Electron Devices* Vol 56, Iss 3, 2009 pp. 441 - 447,

3. Hongyu He, Xueren Zheng, *Model of n-type polycrystalline silicon thin film transistors under DC bias stress*, *11th International Conference on Electronic Packaging Technology & High Density Packaging*, 2010, DOI: 10.1109/ICEPT.2010.5582648

4. He, H., Zheng, X. *Model of N-type polycrystalline silicon thin film transistors under DC bias stress*(2010) *Proceedings - 2010 11th International Conference on Electronic Packaging Technology and High Density Packaging*, ICEPT-HDP 2010, art. no. 5582648, pp. 949-952.

5. Chien, F.-T., Chang, M.-C.. *A new RSD Poly-Si thin film transistor with inside spacer design* (2010) *IEEE Transactions on Electron Devices*, 57 (5), art. no. 31, pp. 1173-1177.

6. Hirata, S., Satoh, T., Tango, H., *Stress-induced off-current under on- and off-state stress voltages in low-temperature n-channel polycrystalline silicon thin-film transistors* (2010) *Japanese Journal of Applied Physics*, 49 (3 PART 2).

7. Li Hung-Wei., *Study on Electrical Characteristics and Physical Properties of TFT*, *Национален Chia Tung University, Taiwan, Dept. Optical Engineering, Дисертация PhD*, 2012

8. Wang, L.L., Kuo, J.B., Zhang, *Analytical drain current model for poly-si thin-film transistors biased in strong inversion considering degradation of tail states at grain boundary*, *S., IEEE Transactions on Electron Devices* 60 (3), art. no. 6409443, pp. 1122-1127, 2013

11. Farmakis F.V., Dimitriadis C.A., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz., Hot-carrier phenomena in high temperature processed undoped-hydrogenated n-channel polysilicon thin film transistors (TFTs)** 1999, *Solid-State Electronics*, vol.43 (7) 1259-1266.

1. Ching-Wei Lin, Chang-Ho Tseng, Ting-Kuo Chang, Yuan-Hsun Chang, Fang-Tsun Chu, Chiung-Wei Lin, Wen-Tung Wang and Huang-Chung Cheng, *An Investigation of Bias Temperature Instability in Hydrogenated Low-Temperature Polycrystalline Silicon Thin Film Transistors*, 2002 *Jpn. J. Appl. Phys.* 41 5517

2. Yunsik Jeong, Dai Nagashima, Hiroshi Kuwano, Tomoyuki Nouda and Hiroki Hamada, *Mechanisms of Electrical Stress-Induced Degradation in H₂/Plasma Hydrogenated n- and p-Channel Polysilicon Thin Film Transistors*, 2002 *Jpn. J. Appl. Phys.* 41 5042

3. Yunsik Jeong, Dai Nagashima, Hiroshi Kuwano, Tomoyuki Nouda and Hiroki Hamada, *Effects of Various Hydrogenation Processes on Bias-Stress-Induced Degradation in p-Channel Polysilicon Thin Film Transistors*, 2002 *Jpn. J. Appl. Phys.* 41 5048

4. Chun-Yen Liu, Kuo-Bin Hsu, Ryan Lee, Chang-Ho Tseng, Shin-Chang Chang, Yaw-Ming Tsai, *P-22: High Performance Fully Self-Aligned Symmetric LDD TFT for System-on-Panel Display*, *SID Symposium Digest of Technical Papers*, Vol 36, Iss 1, 2005 pp. 308-31, DOI 10.1889/1.2036432

5. Vikas Rana, *Single Grain Si TFTs and Circuits based on the μ -Czochralski Process*, *Technische Universiteit Delft, PhD Thesis*, 2006

6. Huaisheng Wang, Mingxiang Wang, Zhenyu Yang, Han Hao, Man Wong, *Stress Power Dependent Self-Heating Degradation of Metal-Induced Laterally Crystallized n-Type Polycrystalline Silicon Thin-Film Transistors*, *IEEE Transactions on Electron Devices*, Vol 54, Iss: 12, 2007, pp. 3276 - 3284

7. Chih-Yang Chen, Shen-De Wang, Ming-Shan Shieh, Wei-Cheng Chen, Hsiao-Yi Lin, Kuan-Lin Yeh, Jam-Wem Lee and Tan-Fu Lei, *Plasma-Induced Damage on the Performance and Reliability of Low-Temperature Polycrystalline Silicon Thin-Film Transistors*, *J. Electrochem. Soc.* 2007 volume 154, issue 1, H30-H35

8. Kuo-Dong Huang, Jyi-Tsong Lin and Bao-Tang Jheng, *Characteristics and reliability of a polysilicon thin-film transistor with a multi-trenched body*, 2008 *Semicond. Sci. Technol.* 23 105010

9. Seishiro Hirata, Masahiro Yamagata, Toshifumi Satoh and Hiroyuki Tango, *Hot-Carrier Degradation in Low-Temperature Polycrystalline Silicon n-Channel Lightly Doped Drain Thin-Film Transistors*, 2009 *Jpn. J. Appl. Phys.* 48 011207, doi.org/10.1143/JJAP.48.011207

10. Meijuan Xu, Mingxiang Wang, Dongli Zhang, Min Xue and Man Wong, *Hydrogenation Effects on the Hot-Carrier Endurance of Metal Induced Laterally Crystallized n-Type Polycrystalline Silicon Thin Film Transistors*, 2008 *Jpn. J. Appl. Phys.* 47 3403

11. He, H., Zheng, X. *Model of N-type polycrystalline silicon thin film transistors under DC bias stress*(2010) *Proceedings - 2010 11th International Conference on Electronic Packaging Technology and High Density Packaging, ICEPT-HDP 2010*, art. no. 5582648, pp. 949-952.

12. Lu, X., Wang, M., Sun, K., Lu, L. *Evaluation of self-heating and hot carrier degradation of poly-Si thin-film transistors using charge pumping technique* (2010) *IEEE International Reliability Physics Symposium Proceedings*, art. no. 5488678, pp. 1040-1043.

13. Hiroshige, Y., Higashi, S., Matsumoto, K., Miyazaki, S. *Formation of high-quality SiO₂ and SiO₂/Si interface by thermal-plasma-jet-induced millisecond annealing and postmetallization annealing*(2010) *Japanese Journal of Applied Physics*, 49 (8 PART 2), art. no. 08JJ01, .

14. Zhang, M., Wang, M., Lu, X., Wong, M., Kwok, H.-S. , *Analysis of degradation mechanisms in low-temperature polycrystalline silicon thin-film transistors under dynamic drain stress*, (2012) *IEEE Transactions on Electron Devices* 59 (6) , art. no. 6178788 , p. 1730.

15. Lai, M.-H., Wu, Y.S., Huang, J.-J. , *Effect of nickel concentration on bias reliability and thermal stability of thin-film transistors fabricated by Ni-metal-induced crystallization*, (2012) *Japanese Journal of Applied Physics* 51 (1) , art. no. 01130.

16. Ming-Hui Lai, *Improved performance and reliability of MIC LTPS-TFTs using simply chemical oxide and drive-in nickel induced crystallization*, PhD Thesis, Department of Material Science and Engineering College of Engineering, National Chiao Tung University, Taiwan, 2011

14. Farmakis F.V., Brini J., Kamarinos G., Dimitriadis C.A., Gueorguiev V.K., **Ivanov Tz.E.**, **Leakage current variation during two different modes of electrical stressing in undoped hydrogenated n-channel polysilicon thin film transistors (TFTs)** 1999, *Microelectronics Reliability*, (6-7) 885-889

1. Kow Ming Chang, Yuan Hung Chung, Gin Ming Lin, *Anomalous variations of OFF-State leakage current in poly-Si TFT under static stress*, *IEEE Electron Device Letters*, Vol. 23, Iss. 5, 2002

2. Hirata, S., Satoh, T., Tango, H. *Stress-induced off-current under on- and off-state stress voltages in low-temperature n-channel polycrystalline silicon thin-film transistors* (2010) *Japanese Journal of Applied Physics*, 49 (3 PART 2), .

3. Zhu, Z., *Thermally generated leakage current mechanisms of metal-induced laterally crystallized n-type poly-Si TFTs under hot-carrier stress*, 2011 *Solid-State Electronics* 62 (1), pp. 62-66

15.F.V.Farmakis, J.Brini, G.Kamarinos, C.A.Dimitriadis, V.K Gueorguiev, **Tz.E . Ivanov**, **Electrical stress in n- and p-channel undoped-hydrogenated polysilicon thin film transistors (TFTS)**, Semiconductor Conference, 1999. CAS '99 Proceedings. 1999 International, pp. 157-160, DOI: 10.1109/SMICND.1999.810452

1. Kow Ming Chang, Yuan Hung Chung, Gin Ming Lin, Chi Gun Deng, Jian Hong Lin, *Enhanced degradation in polycrystalline silicon thin-film transistors under dynamic hot-carrier stress*, *IEEE Electron Device Letters*, Vol 22, Iss 10, 2001, pp.475-477

2. Despina C.Moschou, M.A.Exarchos, D.N.Kouvatsos, G.J.Papaioannou, A.T.Voutsas, *A novel SLS ELA crystallization process and its effects on polysilicon film defectivity and TFT performance*, *Microelectronic Engineering*, Vol 85, Isss 5-6, 2008, pp. 1447-1452

3. D.C.Moschou, M.A.Exarchos, D.N.Kouvatsos, G.J.Papaioannou, A.Arapoyanni, A.T.Voutsas, *Reliability and defectivity comparison of n- and p-channel SLS ELA polysilicon TFTs fabricated with a novel crystallization technique*, *Microelectronics Reliability*, Vol 48, Iss 8-9, 2008, pp. 1544-1548

4. M.A.Exarchos, D.C.Moschou, G.J.Papaioannou, D.N.Kouvatsos, A.Arapoyanni, A.T.Voutsas, *On the study of p-channel thin-film transistors fabricated by SLS ELA crystallization techniques*, *Thin Solid Films*, Vol 517, Iss 23, 2009, pp. 6375-6378

17. L.Popova, S.Andreev, V.Gueorguiev, **Tz.Ivanov**, Voltage versus time dependent current response of MOSFET humidity gas sensor, *Microelectronics Journal*, 31 (2000) 135-138

1. Ya Ling Yang; Lih Hsi Lo; I Yu Huang; H. J. H. Chen; Wen Shen Huang; S. R. S. Huang, *Improvement of polyimide capacitive humidity sensor by reactive ion etching and novel electrode design*, *SENSORS*, 2002 IEEE, Vol 1 pp. 511 - 514, DOI: 10.1109/ICSENS.2002.1037147

2. Juhász László, *CMOS-kompatibilis kapacitív páraérzékelő*, *Budapesti Muszaki és Gazdaságtudományi Egyetem, Villamosmérnöki és Informatikai Kar, PhD Thesis*, 2013

18. Gueorguiev V.K., **Ivanov Tz.E.**, Dimitriadis C.A., Popova L.I., Andreev S.K. **Electron trapping probabilities in hydrogen ion implanted silicon dioxide films thermally grown on polycrystalline silicon** 2000, *Microelectronics Journal*, vol.31 (3) 207-211.

1. Hirano, I., Saitoh, M., Numata, T., Mitani, Y., *Characteristics of defect generation and breakdown in SiO₂ for polycrystalline silicon channel field-effect transistor*, (2012) *Japanese Journal of Applied Physics* 51 (4 PART 2), art. no. 04DA02.

2. Ishfaq, M., Rizwan Khan, M., Bhopal, M.F., Bhardwaj, S., Cepek, C., *1.5 MeV proton irradiation effects on electrical and structural properties of TiO₂/n-Si interface*, (2014), *Journal of Applied Physics*, vol. 115 (17), 174506.

3. M.Caresana, G.Zorloni, *Preliminary study of silica aerogel as a gas-equivalent material in ionization chambers*, *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, Vol 874, Iss 1, pp. 35-42, 2017p DOI 10.1016/j.nima.2017.08.016, Elsevier

19. Angelis C.T., Dimitriadis C.A., Farmakis F.V., Brini J., Kamarinos G., Gueorguiev V.K., **Ivanov Tz.E.**, **Empirical relationship between low-frequency drain current noise and grain-boundary potential barrier height in high-temperature-processed polycrystalline silicon thin-film transistors**, 2000, *Applied Physics Letters*, (1) 118-120

1. B.K. Jones, *Electrical noise as a reliability indicator in electronic devices and components*, *IEE Proceedings - Circuits, Devices and Systems*, Vol 149, Iss 1, 2002, p. 13 – 22, DOI: 10.1049/ip-cds:20020331

2. Jung Il Lee, "Barrier height dependence of low-frequency noise in poly-Si thin film transistors", *Proc. SPIE 5470, Noise in Devices and Circuits II*, (2004); doi: 10.1117/12.547191;

3. Hyungdo Nam, Hae-Suk Yang, Jungil Lee, Alain Chovet, Bela Szentpali, Eunkyu Kim, *Low-frequency noise parameter extraction in poly-Si thin-film transistors*, *Proceedings Volume 5844, Noise in Devices and Circuits III*; (2005); doi: 10.1117/12.609592

4. I. K. Han, J. I. Lee, M. B. Lee, S. K. Chang, and A. Chovet, *A Comprehensive Model for Low Frequency Noise in Poly - Si Thin - Film Transistors*, *AIP Conference Proceedings* 772, 1489 (2005); <https://doi.org/10.1063/1.1994678>

5. Man Wong, Thomas Chow, Chun Cheong Wong, Dongli Zhang, *A Quasi Two-Dimensional Conduction Model for Polycrystalline Silicon Thin-Film Transistor Based on Discrete Grains*, *IEEE Transactions on Electron Devices*, Vol 55, Iss 8, 2008, pp. 2148 - 2156

6. A. Gupta, *Effect Of Trap States At The Oxide-Silicon Interface In Polycrystalline Silicon Thin-Film Transistors*, *Int. J. Mod. Phys. B*, 22, 5357 (2008).

7. Thomas Chow, Man Wong, *An Analytical Expression for the Transfer Characteristics of a Polycrystalline Silicon Thin-Film Transistor With an Undoped Channel*, *IEEE Transactions on Electron Devices*, Vol 56, Iss 7, 2009, pp. 1493 - 1498

8. Deng, W., Huang, *Explicit calculation for grain boundary barrier height in polysilicon TFTs based on quasi-two-dimensional approach*, *J. Solid-State Electronics* 87, pp. 69-73, 2013.

20. Gueorguiev V.K., **Ivanov Tz.E.**, Dimitriadis C.A., Andreev S.K., Popova L.I. **Oxide field enhancement corrected time dependent dielectric breakdown of polyoxides**, 2000, *Microelectronics Journal*, Vol. 31 (8) 663-666

1. Palumbo, D., Masala, S., Tassini, P., Rubino, A., della Sala, D., *Electrical stress degradation of small-grain polysilicon thin-film transistors*, *IEEE Transactions on Electron Devices*, 54 (3) (2007) pp. 476-482.)

2. Hirano, I., Saitoh, M., Numata, T., Mitani, Y., *Characteristics of defect generation and breakdown in SiO₂ for polycrystalline silicon channel field-effect transistor*, *Japanese Journal of Applied Physics* 51 (4 PART 2) (2012) art. no. 04DA02.

22. Andreev S.K., Popova L.I., Gueorguiev V.K., **Ivanov Tz.E.**, Beshkov G. **Gas-sensitivity of SnO₂ layers treated by rapid thermal annealing process** 2001, *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, vol.83 (1-3) 223-226

1. P.Thangadurai, A. Chandra Bosea, S. Ramasamy, R.Kesavamoorthy, T.R.Ravindran, *High Pressure effects on electrical resistivity and dielectric properties of nanocrystalline SnO₂*, *Journal of Physics and Chemistry of Solids*, Vol 66, Is 10, 2005, pp. 1621-1627, doi 10.1016/j.jpcs.2005.05.079

2. Kieu Ngo, *Etude d'un système multicapteur pour la détection sélective des gaz*, Université Paul Cezanne Aix-Marseille III, PhD Thesis, 2006

3. V. V. Petrov, T. N. Nazarova, A. N. Korolev, N.F.Kopilova, *Thin sol-gel SiO₂-SnO_x-AgO_y films for low temperature ammonia gas sensor*, *Sensors and Actuators B: Chemical* Vol 133, Iss 1, 28 July 2008, Pages 291-295, doi 10.1016/j.snb.2008.02.026

4. *Frequency dependence of ultrahigh dielectric constant of novel synthesized SnO₂ nanoparticles thick films* Mahmoudi Chenari, H., Hassanzadeh, A., Golzan, M.M., Sedghi, H., Talebian, M. 2011 *Current Applied Physics* 11 (3), pp. 409-413

5. Garcés, F.A., Urteaga, R., Acquaroli, L.N., Koropecki, R.R., Arce, R.D., *Current-voltage characteristics in macroporous silicon/SiO_x/SnO₂:F heterojunctions*, (2012) *Nanoscale Research Letters* 7:419. DOI 10.1186/1556-276X-7-419

6. Liyanagamage Ranganath Prabashwara Dias, *Phase transitions, metallization, superconductivity and magnetic ordering in dense carbon disulfide and chemical analogs*, Washington State University, Department of Physics and Astronomy, PhD Thesis, 2013

7. Jong Hoon Lee, Fan Zhang, Hong Seung Kim, Jin Hwa Ryu, Kyu-Ha Baek, *Study on the Structural and the Electrical Properties of SnO₂ Thin Films, Synthesized by Using Sol-gel and Rapid Thermal Annealing Processes*, *New Physics: Sae Mulli*, Vol. 63, No. 8, 2013, pp. 905 ~ 908 DOI: 10.3938/NPSM.63.905

8. Hannon, Ami; Lu, Yijiang; Hong, Haiping; Li, Jing; Meyyappan, M., *Functionalized-Carbon Nanotube Sensor for Room Temperature Ammonia Detection*, *Sensor Letters*, Volume 12, Number 10, October 2014, pp. 1469-1476(8) doi /10.1166/sl.2014.3301

9. Soumia Belhamri, Nasr-Eddine Hamdadou, *Improved Properties of SnO₂ thin films obtained via spin coating Method by Varying the Solution Concentration*, *Surface Review and Letters*, Published: 18 August 2017 World Scientific Open Access, DOI 10.1142/S0218625X18500920

25. Aleksandrova P., Gueorguiev V., **Ivanov Tz.**, Popova L. **Characteristics of polysilicon TFTs, hydrogenated by ion implantation P-channel** 2005, *Journal of Optoelectronics and Advanced Materials*, (1) 313-316

1. *Study of grains size distribution and electrical activity of heavily boron doped polysilicon thin films* Bouridah, H., Bouaziz, F., Mansour, F., Mahamdi, R., Temple-Boyer, P. 2011 *Materials Science in Semiconductor Processing* 14 (3-4), pp. 261-265

26. Aleksandrova P.V., Gueorguiev V.K., **Ivanov Tz.E.**, Kaschieva S., **Influence of high energy electron irradiation on the characteristics of polysilicon thin film transistors**, 2006, *European Physical Journal B*, (3) 355-359

1. *High energy electron beam irradiated TiO₂ photoanodes for improved water splitting*, Latthe, S.S., An, S., Jin, S., Yoon, S.S., *Journal of Materials Chemistry A* 1 (43), pp. 13567-13575, 2013

28. Aleskandrova P.V., Gueorguiev V.K., **Ivanov Tz.E.**, Koprinarova J.B. **Poole-Frenkel conduction in Al/ZrO₂/SiO₂/Si structures** 2006, *European Physical Journal B*, (4) 453-457

1. A. S. Jombert, K. S. Coleman, D. Wood, M. C. Petty, and D. A. Zeze, *Poole-Frenkel conduction in single wall carbon nanotube composite films built up by electrostatic layer-by-layer deposition*, *Journal of Applied Physics*, Vol 104, Is 9, 094503 (2008), DOI 10.1063/1.3006015

2. W. Weinreich, L. Wilde, and P. Kücher, *Correlation of microscopic and macroscopic electrical characteristics of high-k ZrSi_xO_{2-x} thin films using tunneling atomic force microscopy*, *Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena* 27, 364 (2009); doi 10.1116/1.3058725

3. Kukkola, J., Rautio, A., Sala, G., Pino, F., Tóth, G., Leino, A.-R., Mäklin, J., Jantunen, H., Uusimäki, A., Kords, K., Gracia, E., Terrones, M., Shchukarev, A., Mikkola, J.P. *Electrical transport through single-wall carbon nanotube-anodic aluminum oxide-aluminum heterostructures* (2009) *Nanotechnology*, 21 (3), art. no. 03570.

4. Bae, J.W., Lim, J.-W., Kim, S.J., Mimura, K., Miyazaki, T., Uchikoshi, M., Isshiki, M. *Preparation of ZrO₂ dielectric layers by subsequent oxidation after Zr film deposition with negative substrate bias voltage* (2010) *Metals and Materials International*, 16 (3), pp. 447-452.

5. Chen, C.-H., Hwu, J.-G. *Stack engineering of low-temperature-processing Al₂O₃ dielectrics prepared by nitric acid oxidation for MOS structure* (2010) *Microelectronic Engineering*, 87 (4), pp. 686-689.

6. *Electrical characteristics of oxidized/nitrided Zr thin film on Si* Wong, Y.H., Cheong, K.Y. 2011 *Journal of the Electrochemical Society* 158 (12), pp. H1270-H1278

7. *Nanocrystallized tetragonal metastable ZrO₂ thin films deposited by metal-organic chemical vapor deposition for 3D capacitors* Brunet, M., Kotb, H.M., Bouscayrol, L., Scheid, E., Andrieux, M., Legros, C., Schamm-Chardon, S. 2011 *Thin Solid Films* 519 (16), pp. 5638-5644

8. *A new cost-effective metal-insulator-metal capacitor processed at 350 °C Using Ni₂Si fully silicided amorphous silicon electrodes* Lee, J.H., Lin, Y.C., Chen, B.-H. 2011 *IEEE Transactions on Electron Devices* 58 (3), art. no. 5703119, pp. 672-676

9. K. Tedi, K.Y. Cheong, Z. Lockman, "Effect of sputtering time on physical and electrical properties of ZrO_x thin film on Si", *Microelectronics International*, Vol. 28 Issue: 3, pp.7-11, (2011) doi: 10.1108/13565361111162567

10. W. S. Lau, *An Extended Unified Schottky-Poole-Frenkel Theory to Explain the Current-Voltage Characteristics of Thin Film Metal-Insulator-Metal Capacitors with Examples for Various High-k Dielectric Materials*, *ECS J. Solid State Sci. Technol.* 2012 1 (6): N139-N148;

11. Chean Hung Lai, *Enhancing MemS Switch Reliability Through The Reduction Of Dielectric Charging And Bouncing Mitigation*, Swinburne University of Technology, Sarawak, Malaysia, PhD Thesis, 2012

12. Dong, M., Wang, H., Shen, L., Ye, Y., Ye, C., Wang, Y., Zhang, J., Jiang, Y., *Dielectric property and electrical conduction mechanism of ZrO₂-TiO₂ composite thin films*, (2012) *Journal of Materials Science: Materials in Electronics* 23 (1), pp. 174-179

13. Lee, D.U.K., Kim, D., Lee, K.S., Kim, E.K., *Memory effect by carrier trapping into V₃Si nanocrystals among SiO₂ layers on multi-layered graphene layer, Memory effect by carrier trapping into V₃Si nanocrystals among SiO₂ layers on multi-layered graphene layer*, *Journal of Nanoscience and Nanotechnology*, (2014), 14 (11), pp. 8654 - 8658.

14. Arash Mohammadpour, *Synthesis and Characterization of TiO₂ Nanowire and Nanotube Arrays for Increased Optoelectronic Functionality*, University of Alberta, Department of Electrical and Computer Engineering, PhD Thesis, 2014, doi:10.7939/R3P844437

15. Park, M.H., Kim, H.J., Kim, Y.J., Moon, T., Kim, K.D., Lee, Y.H., Hyun, S.D., Hwang, C.S, *Study on the internal field and conduction mechanism of atomic layer deposited ferroelectric Hf_{0.5}Zr_{0.5}O₂ thin films*, *Journal of Materials Chemistry C*, Volume 3, Issue 24, 28 June 2015, Pages 6291-6300

16. Lee, K., Kim, Y., Na, H., Sohn, H, *Effect of aliovalent impurities on the resistance switching characteristics of sputtered hafnium oxide films*, *Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics* Volume 33, Issue 3, 1 May 2015, Article number 032204

17. Libardi, J., Grigorov, K.G., Moraes, R.S., Guerino, M., Da Silva Sobrinho, A.S., Massi, M., *Electrical Conduction Mechanisms in Metal-Insulator-Metal (MIM) Structure with TiO_xNy Thin*

Films Deposited with Different O/N Ratios, *Journal of Electronic Materials* Volume 44, Issue 1, 2015, Pages 103-109

18. Yow-Jon Lin, , Jen-Fu Yu, Photoluminescent, morphological and electrical properties of ZrO₂ and ZrO₂:polyvinyl alcohol composite thin films, *Journal of Non-Crystalline Solids* Volume 426, 15 October 2015, pp. 132–136

19. Seung Jong Park, Hanjin Park, Moon Hyung Jang, Min Ahn, Won Jun Yang, Jeong Hwa Han, Hong-Sik Jeong, Cheol-Woon Kim, Young-Kyun Kwon, Mann-Ho Cho, Laser irradiation-induced modification of the amorphous phase in GeTe films: the role of intermediate Ge–Te bonding in the crystallization mechanism, *Journal of Materials Chemistry C* Issue 36, 2015 Materials for optical, magnetic and electronic devices

20. Viktor Schneider Photoschaltbare, elektrisch leitfähige Polymer-Nanokomposite an der Perkolationsschwelle, Christian-Albrechts-Universität zu Kiel, Technische Fakultät, PhD Thesis, 2016

21. Jinxin Chen, Zhifei Gao, Miaomiao Jiang, Yuhan Gao, Xiangyang Maa, and Deren Yang, Electroluminescence from silicon-based light-emitting devices with erbium-doped TiO₂ films annealed at different temperatures, *Journal of Applied Physics*, Vol 122, Iss 16, 2017 DOI 10.1063/1.4997858

31. Hadjichristov G.B., Gueorguiev V.K., **Ivanov Tz.E.**, Marinov Y.G., Ivanov V.G., Faulques E., **Silicon ion implanted PMMA for soft electronics** 2008, *Organic Electronics: physics, materials, applications*, (6) 1051-1060

1. N.M. Shah, Creation of bioactive surfaces to modulate cell behavior using surface-initiated photoiniferter-mediated graft photopolymerization, Dissertation for PhD degree, The Graduate School of Clemson University, 2009.

2. Ayesha, A.S. Electrical and optical characterization of PMMA doped with Y_{0.0025}Si_{0.025}Ba_{0.9725}(Ti_(0.9)Sn_{0.1})O₃ ceramic (2010) *Chinese Journal of Polymer Science (English Edition)*, 28 (4), pp. 537-546.

3. Etching and structure changes in PMMA coating under argon plasma immersion ion implantation Kondyurin, A., Bilek, M. 2011 *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms* 269 (12), pp. 1361-1369

4. P.K. Goyal, V. Kumar, R. Gupta, S. Mahendia, Anita and S. Kumar, Study of electrical and structural modifications induced by 100 keV argon ions in poly(ethylene terephthalate), *Adv. Appl. Sci. Res.* 2 (6) (2011) pp. 77-82.

5. Wang, J., Zhu, F., Zhang, B., Liu, H., Jia, G., Liu, C., Photoluminescence and reflectivity of polymethylmethacrylate implanted by low-energy carbon ions at high fluences, (2012) *Applied Surface Science* 261, pp. 653-658

6. Hong, S.-K., Lee, H.-R., Lee, S., Kim, J., Lee, D., Kim, K.-M., Kim, S.R., Kim, J.S., Comparison of Ion implantation resistance between commercial KrF and ArF photoresists, (2012) *Journal of Photopolymer Science and Technology* 25 (5), pp. 689-691

7. Goyal, P.K., Kumar, V., Gupta, R., Mahendia, S., Anita, Kumar, S., Modification of polycarbonate surface by Ar⁺ ion implantation for various opto-electronic applications, (2012) *Vacuum* 86 (8), pp. 1087-1091

8. Popok, V.N., Ion implantation of polymers: Formation of nanoparticulate materials, (2012) *Reviews on Advanced Materials Science* 30 (1), pp. 1-26.

9. Biswas, B., Chowdhury, A., Mallik, Role of solvents on the electrical conductivity of solution-processed poly (methyl methacrylate) thin films, *Synthetic Metals* 178 (2013) pp. 44-51.

10. Resta, V., Calcagnile, L., Quarta, G., Maruccio, L., Cola, A., Farella, I., Giancane, G., Valli, L., Optical and electrical properties of polycarbonate layers implanted by high energy Cu ions, *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms* 312 (2013) pp. 42-47.

11. Resta, V., Quarta, G., Maruccio, L., Calcagnile, L., Copper ion implantation of polycarbonate matrices: Morphological and structural properties, *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, (2014) Vol. 331, pp. 187- 190.

12. Resta, V., Quarta, G., Farella, I., Cola, A., Calcagnile, L., Comparative study of metal and non-metal ion implantation in polymers: Optical and electrical properties, *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, (2014) Vol. 331, pp. 168- 171.

13. Qi T., Dong L., Qiao Y., Yu Sh., Hei H., He Z., Zhang Y., Jia Y., Zhang Ch., Shen Y., Enhanced electron field emission of Cu implanted microcrystalline diamond films after annealing, *Vacuum*, Vol. 134, December 2016, Pages 141–149 DOI: 10.1016/j.vacuum.2016.10.010
14. Ahmed Q.S., Bashir S., Jalil S.A., Shabbir M.K., Mahmood K., Akram M., Khalid A., Yaseen N., Arshad A., Surface, electrical and mechanical modifications of PMMA after implantation with laser produced iron plasma ions, *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, Vol. 378, 1 July 2016, Pages 1–7 DOI: 10.1016/j.nimb.2016.04.035
15. Sagheer R., Rafique M.S., Saleemi F., Arif S., Naab F. Toader O., Mahmood A.M., Rashid R., Hussain I., Modification in surface properties of poly-allyl-diglycol-carbonate (CR-39) implanted by Au⁺ ions at different fluences, *Materials Science- Poland*, vol. 34 (2), pp. 468-478, 2016, Open Access, DOI: 10.1515/msp-2016-0067
16. Radwan, S.I., Shehata, M.M., El-Khabeary, H., Helal, A.G. Simulation of ion beam bombardment using Bayfol CR 6-2, *Radiation Physics and Chemistry*, Vol. 121, 2016, pp. 93–98 DOI: 10.1016/j.radphyschem.2015.12.019

32. Gueorguiev V.K., Aleksandrova P.V., **Ivanov Tz.E.**, Koprinarova J.B. **Hysteresis in metal insulator semiconductor structures with high temperature annealed ZrO₂/SiO_x layers** 2009, *Thin Solid Films*, (5) 1815-1820

1. Chunhong Li, Feng Pan, Feng Zhu, De Song, He Wang and Donghang Yan, Very low hysteresis organic thin-film transistors, *Semiconductor Science and Technology*, Vol 24, No 8, 2009, 085009
2. Liu, J., Buchholz, D.B., Hennek, J.W., Chang, R.P.H., Facchetti, A., Marks, T.J. All-amorphous-oxide transparent, flexible thin-film transistors. Efficacy of bilayer gate dielectrics (2010) *Journal of the American Chemical Society*, 132 (34), pp. 11934-11942.
3. Wu, Y.-H., Lin, C.-C., Chen, L.-L., Chen, B.-Y., Wu, M.-L., Wu, J.-R., Impact of top electrode on electrical stress reliability of metal-insulator-metal capacitor with amorphous ZrTiO₄ film (2010) *Applied Physics Letters*, 96 (13), art. no. 133501.
4. Bareiß, M., Hochmeister, A., Jegert, G., Zschieschang, U., Klauk, H., Huber, R., Grundler, D., Lugli, P. Printed array of thin-dielectric metal-oxide-metal (MOM) tunneling diodes, 2011 *Journal of Applied Physics* 110 (4), art. no. 044316
5. Kersch, A., Weinreich, W., Lugli, P., Monte Carlo simulation of leakage currents in TiN/ZrO₂ capacitors, Jegert, G., 2011 *IEEE Transactions on Electron Devices* 58 (2), art. no. 5648720, pp. 327-334
6. Jegert, G., Kersch, A., Weinreich, W., Lugli, P., Ultimate scaling of TiN/ZrO₂/TiN capacitors: Leakage currents and limitations due to electrode roughness, 2011 *Journal of Applied Physics* 109 (1), art. no. 014504
7. Asiltürk, M., Burunkaya, E., Sayilkan, F., Kiraz, N., Arpaç, E., Structural and optical properties of thin films prepared from surface modified ZrO₂, 2011 *Journal of Non-Crystalline Solids* 357 (1), pp. 206-210
8. Norihiro Ikeno, Tomihisa Tachibana, Hyunju Lee, Haruhiko Yoshida, Koji Arafune, Shinichi Satoh, Toyohiro Chikyow, Atsushi Ogura, Combinatorial Synthesis Study of Passivation Layers for Solar Cell Applications, *Materials Science Forum*, Vol 725, pp. 161-164, 2012 DOI: 10.4028/www.scientific.net/MSF.725.161
9. Mario Bareiß, *Nanodiodes and Nanoantennas Fabricated by Transfer Technology*, Technische Universität München, Lehrstuhl für Nanoelektronik, PhD Dissertation, 2012
10. Huang Meiyu Stella, *Nanostructured materials for memory applications*, National university of singapore, department of chemical & biomolecular Engineering, PhD Thesis, 2012
11. Martínez H.M, Torres J., López-Carreño L.D., Modelo analítico para el transporte electrónico en películas delgadas semiconductoras, *Universidad EAFIT, Revista Ingeniería y Ciencia*, Vol. 9, No. 18, 2013
12. S. H.S. Alnia'emi, A.S. Al-Rawass and S.M.B Al-Abasee, Effect of Alpha Particles on the Electrical Characteristics of the MIS: Au-Ta₂O₅-GaAs Devices, *Jordanian Journal of Physics*, vol 6, No 1-5, pp. 33-46, 2013
13. Jiangwei Liu, Meiyong Liao, Masataka Imura, Akihiro Tanaka, Hideo Iwai, and Yasuo Koide, Low on-resistance diamond field effect transistor with high-k ZrO₂ as dielectric, *Sci Rep.* 2014; 4: 6395., Published online 2014 Sep 22. doi: 10.1038/srep06395

35. Hadjichristov B., Gueorguiev K., **Ivanov Tz.E.**, Marinov G., Ivanov G., Faulques E., **Electrical properties of PMMA ion-implanted with low-energy Si⁺ beam** 2010, *Journal of Physics: Conference Series*, Volume 207, 2010, Article number 012022

1. *Field effect transistors on graphitized polymer surfaces* Koval, Y., Lazareva, I., Müller, P., Müller, K., Henkel, K., Friedrich, D. 2011 *Physica Status Solidi (B) Basic Research* 248 (2), pp. 299-308

2. Arif, S., Rafique, M.S., Saleemi, F., Sagheer, R., Naab, F.c, Toader, O., Mahmood, A., Rashid, R., Mahmood, M., *Influence of 400 keV carbon ion implantation on structural, optical and electrical properties of PMMA*, *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms* Volume 358, 13 July 2015, Article number 61142, Pages 236-244

3. Ahmed Q.S., Bashir S., Jalil S.A., Shabbir M.K., Mahmood K., Akram M., Khalid A., Yaseen N., Arshad A., *Surface, electrical and mechanical modifications of PMMA after implantation with laser produced iron plasma ions*, *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, Vol. 378, 1 July 2016, Pages 1–7, DOI: 10.1016/j.nimb.2016.04.035

37. Georgiev, S.S., **Ivanov, Tz.E.**, **One-dimensional analytical model for photovoltaic cells based on wide gap semiconductors**, *Journal of Optoelectronics and Advanced Materials* Volume 16, Issue 1-2, January 2014, Pages 41-46

1. Nikolić, D., Vasić-Milovanović, A., Obrenović, M.c, Dolićanin, E., *Effects of successive gamma and neutron irradiation on solar cells*, *Journal of Optoelectronics and Advanced Materials* Volume 17, Issue 3-4, 1 March 2015, Pages 351-356

2. Dejan S. Nikolić *The Impact Of Successive Gamma And Neutron Irradiation On Characteristics Of, Photovoltaic Detectors*, doctoral dissertation, University of Belgrade, Faculty of mechanical engineering, 2015