

Списък на публикациите
на гл. ас. д-р Емил Манолов

1. L.I. Popova, S.K. Andreev, V.K. Gueorguiev, **E.B. Manolov**, Resistance Changes of SnO₂ Thin Films Suitable for Microelectronic Gas Sensors, Proc. 20th International Conference on Microelectronics (MIEL'95), Vol. 2, pp.581-583, Niš, Serbia, 12 – 14 September, 1995.
2. S.K. Andreev, L.I. Popova, V.K. Gueorguiev, **E.B. Manolov**, High-temperature-annealing effects on the electrical properties of RF sputtered SnO₂ thin films for microelectronic sensors, Vacuum, Vol.47, № 11, p. 1325 – 1328, 1996.
IF = 0.518
3. V. Lazarova, L. Spassov, V. Gueorguiev, S. Andreev, **E. Manolov** and L.Popova, Quartz resonator with SnO₂ thin film as acoustic gas-sensor for NH₃, Vacuum, Vol.47, № 12, p. 1423 – 1425, 1996.
IF = 0.518
4. Lozan Spassov, Velichka Lazarova, **Emil Manolov**, Mass-sensitive quartz resonator with SnO₂ thin film as ammonia gas sensor, Proc.of the 4-th International Symposium on Surface Waves in Solids (ISSWAS- 4), June 7 – 12, 1998, St. Petersburg, Russia, pp. 98 – 102.
5. V. Georgieva, L. Spassov, **E. Manolov**, Influence of the surface roughness on the sorption sensitivity of quartz resonators, Proc. Of the 18-th EFTF, Univ. of Surrey, UK, 5 – 7 April, 2004, pp. 92-94.
6. S. S. Georgiev, G. Beshkov, D. Sueva, **E. Manolov**, Properties of the SiC/Si structure prepared by rapid thermal annealing of amorphous hydrogenated carbon layers deposited on crystalline silicon, Journal of Optoelectronics and Advanced Materials, Vol. 7, № 1, February 2005, p. 373 – 376.
IF = 1.138
7. N. Nedev, **E. Manolov**, Tz. Ivanov, B. Pantchev, G. Beshkov, R. Durný, K. Gmucova, V. Nádaždy, Density of localized states in hydrogenated amorphous silicon determined by quasistatic capacitance of Metal/a-Si:H/SiO₂/c-Si structures, Journal of Optoelectronics and Advanced Materials, Vol. 7, № 1, February 2005, p. 507 – 511.
IF = 1.138
8. N. Nedev, M. Stoytcheva, D. Nesheva, **E. Manolov**, R. Brüggemann, S. Meier, Z. Levi, R. Zlatev, B. Valdez, L. Alvares, MOS Structures Containing Amorphous Silicon Nanoparticles for Application in Memory Devices, NSTI – Nanotech, ISBN 1420063766, Vol. 4, 2007, p. 485 – 488.
9. D. Nesheva, N. Nedev, **E. Manolov**, I. Bineva, H. Hofmeister, Memory effect in MIS structures with amorphous silicon nanoparticles embedded in ultra thin SiO_x matrix, Journal of Physics and Chemistry of Solids, 68 (2007) p. 725 – 728.
IF = 0.899

10. N. Nedev, D. Nesheva, **E. Manolov**, R. Brüggemann, S. Meier, K. Kirilov, Z. Levi, Influence of thermal annealing on the memory effect in MIS structures containing crystalline Si nanoparticles, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, № 1, January 2007, p. 182 – 185.
IF = 0.827
11. N. Nedev, **E. Manolov**, B. Pantchev, Ts. Ivanov, R. Durný, V. Nádaždy, Influence of the a-Si:H interfacial region defects on the quasi-static capacitance of Metal/c-Si/SiO₂/a-Si:H structures, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, № 2, February 2007, p. 352 – 354.
IF = 0.827
12. P. Stefanov, G. Atanasova, **E. Manolov**, Z. Raicheva, V. Lazarova, Preparation and Characterization of SnO₂ Films for Sensing Applications, *Journal of Physics: Conference Series* 100, (2008), 082046.
SJR = 0.269
13. D. Nesheva, N. Nedev, Z. Levi, R. Brüggemann, **E. Manolov**, K. Kirilov, S. Meier, Absorption and transport properties of Si rich oxide layers annealed at various temperatures, *Semiconductor Science and Technology*, 23 (2008) 045015 (8 pp).
IF = 1.434
14. S. Georgiev, A. Szekeres, E. Vlaikova, G. Beshkov, D. Sueva, **E. Manolov**, Influence of the rapid thermal annealing on the properties of a-C:H/c-Si structures, *Journal of Physics: Conference Series* 113 (2008) 012013
SJR = 0.269
15. N. Nedev, D. Nesheva, **E. Manolov**, R. Brüggemann, S. Meier, Z. Levi, R. Zlatev, MOS structures containing silicon nanoparticles for memory device applications, *Journal of Physics: Conference Series* 113 (2008) 012034
SJR = 0.269
16. N. Nedev, D. Nesheva, **E. Manolov**, R. Brüggemann, S. Meier, Z. Levi, Memory Effect in MOS Structures Containing Amorphous or Crystalline Silicon Nanoparticles, *Proc. 26th International Conference on Microelectronics (MIEL 2008)*, Vol. 1, Niš, Serbia, 11 – 14 May 2008.
17. N. Nedev, **E. Manolov**, D. Nesheva, J. M. Terrazas, B. Valdez, M. A. Curiel, R. Zlatev, Electrical and Infrared Characterization of Thin SiO₂ Films Deposited by R.F. Magnetron Sputtering, *J. Optoelectronics and Adv. Mat.*, Vol. 11, No. 9, pp. 1300-1303, (2009).
IF = 0.433
18. V. Georgieva, P. Stefanov, L. Spassov, Z. Raicheva, M. Atanassov, T. Tincheva, **E. Manolov**, L. Vergov, Thin MoO₃ films for sensor applications, *J. Optoelectronics and Adv. Mat.*, Vol. 11, No. 9, pp. 1363-1366 (2009).
IF = 0.433
19. J. M. Terrazas, N. Nedev, **E. Manolov**, B. Valdez, D. Nesheva, R. Brüggemann, Properties of thin SiO₂ films deposited by r.f. sputtering, *J. Optoelectronics and Adv. Mat. - Symposia*, Vol. 1, No. 3, pp. 394 - 397 (2009).

20. **E. Manolov**, M. Curiel, N. Nedev, D. Nesheva, J. Terrazas, B. Valdez, R. Machorro, J. Soares, M. Sardela, Influence of thermal annealing on the properties of sputtered Si rich silicon oxide films, *Solid State Phenomena*, Vol. 159, (2010), pp. 101-104.
SJR = 0.194
21. J. M. Terrazas, N. Nedev, **E. Manolov**, B. Valdez, D. Nesheva, M. A. Curiel, R. Haasch, I. Petrov, Effect of oxygen to argon ratio on the properties of thin SiO_x films deposited by r.f. sputtering, *Journal of Materials Science: Materials in Electronics*, Vol. 21, No 5, (2010), pp. 481-485
IF = 0.927
22. M. Curiel, I. Petrov, N. Nedev, D. Nesheva, M. Sardela, Y. Murata, B. Valdez, **E. Manolov**, I. Bineva, Formation of Si nanocrystals in thin SiO₂ films for memory device applications, *Materials Science Forum* Vol. 644 (2010) pp 101-104.
23. M. A. Curiel, N. Nedev, D. Nesheva, J. Soares, R. Haasch, M. Sardela, B. Valdez, B. Sankaran, **E. Manolov**, I. Bineva and I. Petrov, Microstructural characterization of thin SiO_x films obtained by physical vapor deposition, *Materials Science & Engineering B*, Vol. 174, (2010), pp. 132-136.
IF = 1.56
24. N. Nedev, D. Nesheva, M. Curiel, **E. Manolov**, I. Petrov, B. Valdez, I. Bineva, Electrical characterization of MOS structures with self-organized three-layer gate dielectric containing Si nanocrystals, *Journal of Physics: Conference Series*, 253, (2010), 012034.
SJR = 0.291
25. V. Georgieva, Z. Raicheva, A. Grechnikov, V. Gadjanova, M. Atanasov, J. Lazarov, **E. Manolov**, Quartz roughness affect on WO₃ coated QCM, *Journal of Physics: Conference Series* 253, (2010), 012046.
SJR = 0.291
26. N. Nedev, **E. Manolov**, D. Nesheva, K. Krezhov, R. Nedev, M. Curiel, B. Valdez, A. Mladenov, Z. Levi, Radiation Dosimeter Based on Metal-Oxide-Semiconductor Structures Containing Silicon Nanocrystals, *Key Eng. Mat.* Vol. 495, (2012), pp. 120-123.
SJR = 0.171
27. N. Nedev, **E. Manolov**, D. Nesheva, K. Krezhov, R. Nedev, M. Curiel, B. Valdez, A. Mladenov, Z. Levi, Metal-Oxide-Semiconductor structures containing silicon nanocrystals for application in radiation dosimeters, *Sensor Letters*, Vol. 10, No. 3/4, (2012), 833-837.
IF = 0.517
28. D. Nesheva, N. Nedev, M. Curiel, I. Bineva, B. Valdez and **E. Manolov**, Silicon Oxide Films Containing Amorphous or Crystalline Silicon Nanodots for Device Applications, in "Quantum Dots – A Variety of New Applications", Ed. A. Al-Ahmadi, InTech Publ. Ch. 9, pp. 183-206 (2012).
29. D. Mateos, A. Arias, N. Nedev, M. Curiel, V. Dzhurkov, **E. Manolov**, D. Nesheva, O. Contreras, B. Valdez, I. Bineva, O. Raymond and J.M. Siqueiros, Metal-Oxide Semiconductor Structures with Two and Three-Region Gate Dielectric Containing Silicon Nanocrystals: Structural, Infrared and Electrical Properties, *Proc. of the Nanoscience and Technology Institute Conference NSTI-Nanotech 2013*, May 20-24, Washington D.C., USA, Vol. 1, pp. 396-399.

30. D. Mateos, N. Nedev, D. Nesheva, M. Curiel, **E. Manolov**, A. Arias, O. Contreras, B. Valdez, Z. Levy and J. Siqueiros, Electrical Characterization of MOS Structures with Silicon Nanocrystals Suitable for X-ray Detection, *Key Eng. Mat.*, Vol. 543, (2013), pp. 150-153,
SJR = 0.191
31. D. Mateos, M.A. Curiel, N. Nedev, D. Nesheva, R. Machorro, **E. Manolov**, N. Abundiz, A. Arias, O. Contreras, B. Valdez, O. Raymond and J.M. Sequeiros, TEM and Spectroscopic Ellipsometry Studies of Multilayer Gate Dielectrics Containing Crystalline and Amorphous Si Nanoclusters, *Physica E* 51, (2013), pp. 111-114.
IF = 1.856
32. N. Nedev, A. Arias, M. Curiel, R. Nedev, D. Mateos, **E. Manolov**, D. Nesheva, B. Valdez, R. Herrera, A. Sanchez, Visible light sensor based on metal-oxide-semiconductor structure, *Key Engineering Materials*, Vol. 605, (2014), 384-387.
SJR = 0.209
33. A. Arias, N. Nedev, D. Nesheva, M. Curiel, **E. Manolov**, D. Mateos, V. Dzurkov, B. Valdez, O. Contreras, R. Herrera, I. Bineva, J.M. Siqueiros, MOS structures containing Si nanocrystals for applications in UV dosimeters, *Key Engineering Materials*, Vol. 605, (2014), 380-383.
SJR = 0.209
34. A. Arias, N. Nedev, M. Curiel, D. Nesheva, **E. Manolov**, B. Valdez, D. Mateos, O. Contreras, O. Raymond, J.M. Siqueiros, Electrical characterization of interface defects in MOS structures containing silicon nanoclusters, *Advanced Materials Research*, Vol. 976, (2014), 129-132.
SJR = 0.14
35. D. Nesheva, N. Nedev, M. Curiel, V. Dzhurkov, A. Arias, **E. Manolov**, D. Mateos, B. Valdez, I. Bineva, R. Herrera, Application of Metal-Oxide-Semiconductor structures containing silicon nanocrystals in radiation dosimetry, *Open Physics* 13, (2015), pp. 63-71.
IF = 1.085
36. Arias, A.; Nedev, N.; Curiel, M.; Nedev, R.; Mateos, D.; **Manolov, E.**; Nesheva, D.; Valdez, B.; Herrera, R.; Sanchez, A., Application of Metal-Oxide-Semiconductor Structures for Visible and Near UV Light Sensing, *Sensor Letters* 13 (7), (2015), pp. 556-560.
SJR = 0.161
37. Arias, A.; Nedev, N.; Nesheva, D.; Curiel, M.; Manolov, E.; Mateos, D.; Dzurkov, V.; Valdez, B.; Contreras, O.; Herrera, R.; Bineva, I.; Siqueiros, J. M., UV Dosimeters Based on Metal-Oxide-Semiconductor Structures Containing Si Nanocrystals, *Sensor Letters* 13 (7), (2015), pp. 561-564.
SJR = 0.161
38. R. Herrera, M. Curiel, A. Arias, D. Nesheva, N. Nedev, E. Manolov, V. Dzhurkov, O. Perez, B. Valdez, D. Mateos, I. Bineva, W. de la Cruz, O. Contreras, Structural, compositional and electrical characterization of Si-rich SiO_x layers suitable for application in light sensors, *Materials Science in Semiconductor Processing* 37, (2015), pp. 229-234.
IF = 1.955

39. D. Nesheva, V. Dzhurkov, M. Šćepanović, I. Bineva, **E. Manolov**, S. Kaschieva, N. Nedev, S. N. Dmitriev, Z. V. Popović, High energy electron-beam irradiation effects in Si-SiO_x structures, Journal of Physics: Conference Series, 682, (2016), 012012.
SJR = 0.217

40. Патент за изобретение № 65971/09.09.2010. от колектив в състав Д. Нешева, Н. Недев, **Е. Манолов**, Р. Брюгеман, С. Майер, З. Леви, И. Бинева, „*Метал-изолатор-силиций структури, съдържащи силициеви наночастици и метод за производството им*“.

41. Е. Манолов, „Силициеви наночастици в слоеве от силициев оксид за приложение в енергонезависими паметни и детектори на гама лъчение“.

От тях:

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- 1 глава от книга (№ 28)
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