

List of Publications during 2016

Institute of Solid State Physics

1. Anatoly Soldatov, Bogdan Doroshenko, **Ivan Kostadinov**, Yury Polunin, **Nikola Sabotinov**, Alexey Shumeiko. Computer Control of the Spectral Composition of the Powerful Laser System Irradiation with a Wide Range of Laser Transitions on Metal Vapors. MATEC Web Conf. Volume 79, 2016 VII Scientific Conference with International Participation “Information-Measuring Equipment and Technologies” (IME&T 2016), 79, EDP Sciences, 2016, 01003
2. Andreeva, T. D., Danailova, K. A., **Terziyska, P.**, Krumova, S. B., Taneva, S. G., Krastev, R.. Hofmeister anions effect on the thickness and morphology of polyelectrolyte multilayers for biofunctionalization of cardiovascular stents. Bulgarian Chemical Communications, 48, Special Issue A, 2016, ISSN:0324-1130, 23-28. ISI IF:0.349
3. **Angelov, A., Stoyanova, E.** Fiber-Optic Laser Gyroscope with Current Modulation of the Optical Power. Bulgarian Journal of Physics, 43, 2, 2016 Heron Press Ltd., 2016, ISSN:1310-0157, 100-109
4. **Antonova K., Szekeres A.**, Duta L., Stan G.E., Mihailescu N., Mihailescu I.N.. Orientation of the nanocrystallites in AlN thin film determined by FTIR spectroscopy. Journal of Physics: Conference Series, 682, IOP Science, 2016, ISSN:17426588, DOI:10.1088/1742-6596/682/1/012024, 012024. SJR:0.211
5. **Antonova, K. T., Vitkova, V.**, Mayer, C.. Membrane tubulation from giant lipid vesicles in alternating electric fields. Physical Review E, 93, APS, 2016, DOI:http://dx.doi.org/10.1103/PhysRevE.93.012413, 012413. ISI IF:2.288
6. Averlant E., Tlidi M., Thienpont H., Ackemann T., **Panajotov K.** Vector cavity solitons in broad area Vertical-Cavity Surface-Emitting Lasers. Scientific Reports, 6, Springer Nature, 2016, ISSN:ISSN 2045-2322 (online), DOI:10.1038/srep20428, 20428-1-20428-7. ISI IF:5.578
7. Averlant, E., Tlidi, M., Ackemann, T., Thienpont, H., **Panajotov, K.** Polarization properties of localized structures in VCSELs. Proceedings of SPIE - The International Society for Optical Engineering, 9892, SPIE, 2016, ISSN:0277786X, DOI:10.1117/12.2225161
8. Ayriyan, A. A., Ayrjan, E. A., Egorov, A. A., **Hadjichristov, G. B., Marinov, Y. G.**, Maslyanitsyn, I. A., **Petrov, A. G.**, Pribis, J., **Popova, L.**, Shigorin, V. D., Strigazzi, A., Torgova, S. I.. Some Features of Second Harmonic Generation in the Nematic Liquid Crystal 5CB in the Pulsed-Periodic Electric Field. Physics of Wave Phenomena, 24, 4, Allerton Press, Inc., 2016, ISSN:1541-308X, DOI:0.3103/S1541308X16040026, 259-267. ISI IF:0.55
9. Balchev, I., Tzvetkova, Kr., Kolev, S., **Terziyska, P., Szekeres, A., Miloushev, I., Tenev, T., Antonova, K., Peyeva, R.**, Ivanova, T., Avramova, I., Tzvetkov, M., Avdreev, G., Valcheva, E., Milenov, T., Tinchev, S.. Synthesis and characterization of thin amorphous carbon films doped with nitrogen on (001) Si substrates. Journal of Physics: Conference Series, 764, 1, IOP Publishing Ltd, 2016, ISSN:17426588, DOI:doi:10.1088/1742-6596/764/1/012013, SJR:0.211
10. Balli, M, Jandl, S, Fournier, P, **Dimitrov, DZ.** Giant rotating magnetocaloric effect at low magnetic fields in multiferroic TbMn₂O₅ single crystals. Applied Physics Letters, 108, 2016, 102401. ISI IF:3.142

11. Balli, M, Jandl, S, Fournier, P, **Dimitrov, DZ**. On the conventional and rotating magnetocaloric effects in multiferroic TbMn₂O₅ single crystals. arXiv, 2016, ISI IF:0.643
12. Balli, M, Mansouri, S, Jandl, S, Fournier, P, **Dimitrov, DZ**. Large rotating magnetocaloric effect in the orthorhombic DyMnO₃ single crystal. Solid State Communications, 239, 2016, 9-12. ISI IF:2.041
13. Balli, M, Mansouri, S, Roberge, B, Jandl, S, Fournier, P, **Dimitrov, DZ**. On the rotating magnetocaloric effect in multiferroic RMn₂O₅ compounds. 2016, 5 pages
14. **Berova M., Sandulov M., Tsvetkova T.**, Avramova I., Boettger R., Bischoff L.. X-Ray Photoelectron Study of Ion Implanted Tetrahedral Carbon. Przeglad Elektrotechniczny, 92, 8, 2016, ISBN:0033-2097, DOI:doi:10.15199/48.2016.08.16, 59-61. SJR:0.244
15. **Berova M., Sandulov M., Tsvetkova T.**, Bischoff L., Boettger R., Abrashev M.. Vibrational spectroscopy of Ga⁺ ion implanted ta-C films. Journal of Physics: Conference Series, 682, 2016, 012020. SJR:0.217
16. **Berova M., Sandulov M., Tsvetkova T.**, Karashanova D., Boettger R., Bischoff L.. Structural modification of Ga⁺ and N⁺ ion implanted ta-C films. Journal of Physics: Conference Series, 700, 2016, ISSN:17426588, DOI:doi:10.1088/1742-6596/700/1/012035, SJR:0.211
17. Bian, C, Lin, R, Zhang, X, Ma, Q D Y, **Ivanov, P Ch**. Scaling laws and model of words organization in spoken and written language. EPL (Europhysics Letters), 113, 1, IOP, 2016, ISSN:0295-5075, DOI:10.1209/0295-5075/113/18002, 18002-1-18002-6. ISI IF:1.963
18. **Blagoev, B. S., Dimitrov, D. Z., Mehandzhiev, V. B.**, Kovacheva, D., **Terziyska, P.**, Pavlic, J., Lovchinov, K., Mateev, E., Leclercq, J., **Sveshtarov, P.** Electron transport in Al-doped ZnO nanolayers obtained by atomic layer deposition. Journal of Physics: Conference Series, 700, 1, IOP Publishing Ltd, 2016, ISSN:17426588, DOI:10.1088/1742-6596/700/1/012040, 012040. SJR:0.211
19. **Blagoev, B. S., Vlahov, E.**, Videkov, V., Tzaneva, B., Łuka, G., Witkowski, B. S., **Terziyska, P.**, Leclercq, J., Krajewski, T. A., Guziewicz, E., **Dimitrov, D. Z., Mehandzhiev, V. B., Sveshtarov, P.** Atomic Layer Deposition of ZnO:Al on PAA substrates. Journal of Physics: Conference Series, 764, 1, IOP Publishing, 2016, ISSN:1742-6596, DOI:10.1088/1742-6596/764/1/012004, 012004. SJR:0.211
20. Blaha, S., Averlant, E., **Panajotov, K.**, Tlidi, M.. Self-organized light bullets in type-I intracavity second-harmonic generation. Proceedings of SPIE - The International Society for Optical Engineering, 9892, SPIE, 2016, ISSN:0277786X, DOI:10.1117/12.2230311
21. **Boyadjiev, S. I., Georgieva, V.**, Yordanov, R., Raicheva, Z., Szilágyi, I. M.. Preparation and characterization of ALD deposited ZnO thin films studied for gas sensors. Applied Surface Science, 387, Elsevier, Netherlands, 2016, ISSN:0169-4332, DOI:10.1016/j.apsusc.2016.06.007, 1230-1235. SJR:0.93, ISI IF:3.15
22. Bozhinov, N, **Blagoev, B**, Marinova, V, Babeva, T, Goovaerts, E, **Dimitrov, D**. Properties of ALD Aluminum-doped ZnO as transparent conductive oxide. Bulgarian Chemical Communications, 48, 2016, 193-197. ISI IF:0.229
23. **Buchkov K. M., Nazarova E. K., Balchev N. A.**, Gajda D., Nenkov K. A., **Zahariev A. L.** Electro-transport studies of silver doped FeSe_{0.94} superconducting system. AIP Conf. Proceed., 1722, AIP Publishing, 2016, DOI:10.1063/1.4944167, 080002

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25. Caprena, P, Coronado, A. V., Carretero-Campos, C, Bernaola-Galván, P, **Ivanov, P. Ch**. First-Passage Time Properties of Correlated Time Series with Scale-Invariant Behavior and with Crossovers in the Scaling. *Time Series Analysis and Forecasting, Part of the series Contributions to Statistics*, Springer, 2016, ISBN:978-3-319-28723-2, DOI:10.1007/978-3-319-28725-6_7, 89-102
26. **Chamati, H.**, Romano, S.. Nematic order in a simple-cubic lattice-spin model with full-ranged dipolar interactions. *Physical Review E*, 93, American Physical Society, 2016, DOI:10.1103/PhysRevE.93.052147, 052147-052147. ISI IF:2.252
27. **Chamati, H.**, Trobec, R., Pavlič, J.I.. Peculiarities in the study of DSPC lipid vesicles by coarse-grain molecular dynamics. *Advances in Biomembranes and Lipid Self-Assembly*, 23, Elsevier, 2016, ISBN:978-0-12-804715-6, DOI:10.1016/bs.abl.2015.12.002, 20, 169-185. SJR:0.204
28. Chamel, N., Mutafchieva, Y. D., Stoyanov, Zh. K., **Mihailov, L. M.**, Pavlov, R. L.. Landau quantization and neutron emissions by nuclei in the crust of a magnetar. *Journal of Physics: Conference Series*, 724, 012034, Institute of Physics Publishing, 2016, ISSN:1742-6588, DOI:doi:10.1088/issn.1742-6596, SJR:0.217
29. Chernogorova, T. P., **Temelkov, K. A.**, Koleva, N. K., Vuchkov, N. K.. 2D numerical modelling of gas temperature in a nanosecond pulsed longitudinal He-SrBr₂ discharge excited in a high temperature gas-discharge tube for the high-power strontium laser. *Journal of Physics: Conference Series*, 715, 2016, ISSN:1746-6596, SJR:0.19
30. **D. I. Uzunov**. Theoretical study of anisotropic layered antiferromagnets. arXiv, 2016
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32. Daskalova, A, **E Iordanova**, I Bliznakova, **G Yankov, M Grozeva**, B Ostrowska. Preliminary study of surface modification of 3D Poly (ϵ - caprolactone) scaffolds by ultrashort laser irradiation. *Journal of Physics: Conference Series (JPCS)*, IOP Publishing, 2016, SJR:0.27
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39. **Emiliya Dimova**, Wei Huang, George Popkirov, Andon Rangelov, Elica Kyoseva. Broadband and ultra-broadband modular half-wave plates. *Optics Communications*, 366, 2016, 382-385. ISI IF:1.48
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