

**Общ списък на трудовете и публикациите на кандидата
доц. д-р Илиана Наумова Апостолова по етапи на изграждане**

I. Научни публикации по дисертационната работа за присъждане на научна и образователна степен ДОКТОР:

1. J. M. Weesselinowa and I. Apostolova, Size and anisotropy effects on static and dynamic properties of ferromagnetic nanoparticles, *J. Phys.: Cond. Matter.* **19**, 216208 (2007). Q1, SJR 1,561, IF 1,9
2. J. M. Wesselinowa and I. Apostolova, Ion doping effects on static and dynamic properties of ferromagnetic nanoparticles, *J. Appl. Phys.* **101**, 103915 (2007). Q1, SJR 1,695, IF 2,201
3. J. M. Wesselinowa and I. Apostolova, Size, anisotropy and doping effects on the coercive field of ferromagnetic nanoparticles, *J. Phys.: Condens. Matter* **19**, 406235 (2007). Q1, SJR 1,561, IF 1,9
4. J. M. Wesselinowa and I. Apostolova, Theoretical study of phonon spectra in ferromagnetic nanoparticles, *Physics Letters A* **372**, 305-311 (2008). Q1, SJR 1,049, IF 2,174
5. J. M. Wesselinowa and I. Apostolova, Impact of defects on the properties of ferromagnetic nanoparticles, *J. Appl. Phys.* **103**, 073910 (2008). Q1, SJR 1,644, IF 2,201(2008)
6. I. Apostolova and J. M. Wesselinowa, Magnetic control of ferroelectric properties in multiferroic BiFeO₃ nanoparticles, *Solid State Commun.* **147**, 94-97 (2008). Q1, SJR 1,077, IF 1,781
7. J. Wesselinowa and I. Apostolova, Theoretical study of multiferroic BiFeO₃ nanoparticles, *J. Appl. Phys.* **104**, 084108 (2008). Q1, SJR 1,644, IF 2,201
8. I. Apostolova, A. Apostolov and J. Wesselinowa, Theoretical study of the phonon spectra of multiferroic BiFeO₃ nanoparticles, *J. Phys.: Condens. Matter* **21**, 036002 (2009). Q1, SJR 1,525, IF 1,9
9. I. Apostolova and J. M. Wesselinowa, Ion doping effects on the properties of multiferroic BiFeO₃ nanoparticles, *J. Magn. Magn. Mater.* **321**, 2477-2482 (2009). Q1, SJR 1,207, IF 1,204
10. I. Apostolova and J. M. Wesselinowa, Possible low-T_C nanoparticles for use in magnetic hyperthermia treatments, *Solid State Commun.* **149**, 986-990 (2009). Q1, SJR 1,207, IF 1,781
11. I. Apostolova and J. M. Wesselinowa, Composition dependence of the coercivity in magnetic nanoparticles suitable for magnetic hyperthermia, *phys. stat. sol. (b)* **246**, 1925-1930 (2009). Q2, SJR 0,848, IF 1,15

II. Научни публикации за участие в конкурса за академична длъжност доцент:

12. A. Apostolov, R. Bezdushnyi, R. Damianiva, N. Stanev, I. Naumova and H. Gamari-Seale, Magnetic Properties of Some TbFe₁₁TiH_x Hydrides, *phys. stat. sol. (b)* **143**, 385 (1994). IF 1,306
13. A. Apostolov, R. Bezdushnyi, R. Damianiva, N. Stanev, I. Naumova, The effect of absorbed hydrogen on the magnetic properties of DyFe₁₁Ti, *J. Magn. Magn. Mater.* **150** 393-398 (1995). IF 1,537
14. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, MO.Fe₂O₃ nanoparticles for self controlled magnetic hyperthermia, *J. Appl. Phys.* **109**, 083939 (2011). Q1, SJR 1,374, IF 2,168(2011)

15. J. M. Wesselinowa, A. T. Apostolov, I. N. Apostolova and S. G. Bahoosh, Critical exponents of multiferroic hexagonal RMnO₃, *Bulg. J. Phys.* **38**, 420-425 (2011).
16. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Temperature and layer number dependence of the G and 2D phonon energy and damping in graphene, *J. Phys.: Condens. Matter* **24**, 235401 (2012). Q1, SJR 1,688, IF 2,355
17. S. G. Bahoosh, A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Theory of phonon properties in doped and undoped CuO nanoparticles, *Phys. Lett. A* **376**, 2252-2255 (2012). Q2, SJR 0,787, IF 1,766
18. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Substrate effects on the energy and damping of the G and 2D modes in graphene, *Solid State Commun.* **152**, 1980-1984 (2012). Q1, SJR 0,994, IF 1,534
19. I. N. Apostolova, A. T. Apostolov, S. G. Bahoosh and J. M. Wesselinowa, Origin of ferromagnetism in transition metal doped BaTiO₃, *Journal of Applied Physics.* **113**, 203904 (2013). Q1, SJR 1,155, IF 2,210
20. I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Spin-phonon interaction effects in pure and Fe doped antiferromagnetic Cr₂O₃ nanoparticles, *Solid State Communications.* **174**, 1-4 (2013). Q1, SJR 0,806, IF 1,534
21. I. N. Apostolova, A. T. Apostolov, S. G. Bahoosh, J. M. Wesselinowa and S. Trimer, Multiferroism in the dielectric function of CuO, *Physica Status Solidi - Rapid Research Letters* **7**, 1001-1004 (2013). Q1, SJR 1,164, IF 1,489
22. A. T. Apostolov, I. N. Apostolova, S. G. Bahoosh, S. Trimer and J. M. Wesselinowa, Enhancement of the magnetoelectric effect in transition metal doped BaTiO₃ nanoparticles, *European Physical Journal - Web of Conference Proceedings* (2013).
23. S. G. Bahoosh, A. T. Apostolov, I. N. Apostolova, S. Trimer and J. M. Wesselinowa, Theoretical study of the multiferroic properties in M-doped (M=Co,Cr,Mg) ZnO thin films, *Journal of Magnetism and Magnetic Materials (International Conference on Nanoscale Magnetism (ICNM)) Istanbul 2-6.Sept. (2013).*
24. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Ferrimagnetic nanoparticles for self-controlled magnetic hyperthermia, *European Physical Journal B* **86**, 483 (2013). Q2, SJR 0,724, IF 1,282
25. A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, p- or n-Doping Effects on the Phonon Spectrum of Single- and Bi-Layer Graphene, *Bulgarian Journal of Physics* **40** 307-324 (2013).
26. I. N. Apostolova, A. T. Apostolov, S. G. Bahoosh and J. M. Wesselinowa, Room temperature ferromagnetism and phonon properties of pure and doped TiO₂ nanoparticles, *Journal of Magnetism and Magnetic Materials* **353**, 99-104 (2014). Q1, SJR 0,859, IF 1,826
27. I. N. Apostolova, Dielectric and phonon properties of the multiferroic ferrimagnet Cu₂OSeO₃, *Journal of Applied Physics* **115**, 064103 (2014). Q1, SJR 1,039, IF 2,21
28. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, The magnetoelectric effect in thin films of ferromagnetic semiconductor La₂NiMnO₆, *Physica Status Solidi (b)* **251** 1219-1224 (2014). Q1, SJR 0,805, IF 1,489
29. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Dielectric constant of multiferroic pure and doped CuO nanoparticles, *Solid State Communications* **192**, 71-74 (2014). Q1, SJR 0,8859, IF 1,534

III. Научни публикации след конкурса за доцент:

*Номерацията в скобите е в съответствие с Приложение 2 - оценка на съответствието с МНИ

30. А. Апостолов, И. Апостолова, Микроскопичен анализ на мултифероични свойства на М-дотиран ($M=Co, Cr, Mg$) ZnO тънък филм, Годишник на УАСГ, том **XLVII**, 297 (2014). ISSN 1310-814X
31. А. Апостолов, И. Апостолова, Феримагнитни наночастици за самосъгласувана хипертермия, Годишник на УАСГ, том **XLVII**, 331 (2014). ISSN 1310-814X
- 32(Г7.1). А. Т. Apostolov, I. N. Apostolova, S. G. Bahoosh, S. Trimper and J. M. Wesselinowa, Enhancement of the magnetoelectric effect in doped BaTiO₃ nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **252**(8), 1839 (2015). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,665, IF 1,522 doi: 10.1002/pssb.201451752
33. S. G. Bahoosh, A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Theoretical study of the multiferroic properties in M-doped ($M=Co, Cr, Mg$) ZnO thin films, *Journal of Magnetism and Magnetic Materials* **373**, 40 (2015). ISSN 0304-8853, Q1, SJR 0,73, IF 2,357 doi: 10.1016/j.jmmm.2014.02.011
- 34(Г7.2). I. N. Apostolova, A. T. Apostolov, S. G. Bahoosh, S. Trimper and J. M. Wesselinowa, Origin of multiferroism in the charge frustrated LuFe₂O₄ compound, *Physics Letters A* **379**(7), 743-746 (2015). ISSN (Print) 0375-9601, ISSN (Online) 1873-2429, Q2, SJR 0,663, IF 1,677 doi: 10.1016/j.physleta.2014.12.043
- 35(Г7.3). А. Т. Apostolov, I. N. Apostolova, S. G. Bahoosh, S. Trimper, M. T. Georgieva and J. M. Wesselinowa, Multiferroic properties of $S = 1/2$ chain cuprates LiCuVO₄. Comparison with LiCu₂O₂, *Modern Physics Letters B* **29**(17), 1550086 (2015). ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q3, SJR 0,248, IF 0,547 doi: 10.1142/S0217984915500864
- 36(Г7.4). I. N. Apostolova, A. T. Apostolov, J. M. Wesselinowa and S. Trimper, Magnetic and dielectric properties of $S = 1/2$ chain cuprate Li₂ZrCuO₄, *Physica Status Solidi B: Basic Solid State Physics* **252**(12), 2667 (2015). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,665, IF 1,522 doi: 10.1002/pssb.201552311
- 37(Г7.5). А. Т. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Microscopic approach to the magnetoelectric coupling in RCrO₃, *Modern Physics Letters B* **29**(1), 1550251 (2015). ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q3, SJR 0,248, IF 0,547 doi: 10.1142/S0217984915502516
- 38(Г7.6). А. Т. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Theory of magnetic field control on polarization in multiferroic RCrO₃ compounds, *European Physical Journal B* **88**, 328 (2015). ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q2, SJR 0,514, IF 1,223 doi: 10.1140/epjb/e2015-60649-4
- 39 А. Т. Apostolov, I. N. Apostolova, Green's Function Theory for Ising Model in Transverse field for Arbitrary Spin, *International Journal of Scientific Research in Science and Technology (IJSRST)*, **2**(6), 414-420 (2016). ISSN (Print) 2395-6011, ISSN (Online) 2395-602X
- 40(Г7.7). А. Т. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Magnetoelectric coupling and spin reorientation in BiFeO₃, *Physical Status Solidi B: Basic Solid State Physics* **254**(4), 1600433 (2016). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q1, SJR 0,96, IF 1,674 doi: 10.1002/pssb.201600433
41. А. Т. Апостолов, И. Н. Апостолова, Влияние на подложката върху зонната структура и дисперсията на енергията на електроните в еднослоен графен, Годишник на УАСГ **50**(1), 105 (2017). ISSN 1310-814X
42. А. Т. Апостолов, И. Н. Апостолова, Аномалия на звуковата скорост в BiFeO₃, Годишник на УАСГ **50**(1), 115 (2017). ISSN 1310-814X
43. А. Т. Apostolov, I. N. Apostolova, Influence of magnetoelectric interaction on the elementary excitation in BiFeO₃, *International Journal of Scientific Research in Science and Technology (IJSRST)* **3**(4), 69 (2017). ISSN (Print) 2395-6011, ISSN (Online) 2395-602X |

- 44(Г7.8). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Influence of spin-phonon interactions and spin-reorientation transitions on the phonon properties of $RCrO_3$, *Modern Physics Letters B* **31**(03), 1750009 (2017).
ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q4, SJR 0,226, IF 0,731
doi: 10.1142/S0217984917500099
45. А. Т. Апостолов, И. Н. Апостолова, Изследване влиянието на магнетоелектричното взаимодействие върху елементарните възбуждания в $BiFeO_3$ наночастици, *Годишник на УАСГ* **50**(2), 75 (2017). ISSN 1310-814X
46. А. Т. Апостолов, И. Н. Апостолова Метод на функциите на Грийн за 1-спин нематична мезофаза, *Годишник на УАСГ* **50**(2), 95 (2017). ISSN 1310-814X
47. A. T. Apostolov, I. N. Apostolova, Microscopic Approach to the Magnetoelectric Coupling in $RCrO_3$ ($R = Y, La, Lu$ and Eu) Compounds, *International Advanced Research Journal in Science, Engineering and Technology (IARJSET)* **4**(6), 157 (2017).
ISSN (Print) 2394-1588, ISSN (Online) 2393-8021
doi: 10.17148/IARJSET.2017.4629
- 48(Г7.9). A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Room temperature ferromagnetism in pure and ion doped SnO_2 nanoparticles, *Modern Physics Letters B*, **31**(36) 1750351 (2017).
ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q4, SJR 0,226, IF 0,731
doi: 10.1142/S0217984917503511
- 49(Г7.10). A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Dielectric properties of multiferroic $CuCrO_2$, *European Physical Journal B* **90**, 236 (2017).
ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q2, SJR 0,43, IF 1,536
doi: 10.1140/epjb/e2017-80461-4
50. А. Т. Апостолов, И. Н. Апостолова, Микроскопичен модел на магнетоелектричните взаимодействия в $RCrO_3$ ($R = Y, La, Lu$ и Eu) съединения, доклад на конференция, *Годишник на УАСГ* **51**(2), 179 (2018). ISSN 1310-814X
51. А. Т. Апостолов, И. Н. Апостолова, Микроскопичен механизъм на спин-преориентационен преход в $BiFeO_3$ тънки филми индуциран от външно електрично поле, доклад на конференция, *Годишник на УАСГ* **51**(2), 155 (2018). ISSN 1310-814X
- 52(Г7.11). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, $La_{1-x}Sr_xMnO_3$ nanoparticles for magnetic hyperthermia, *Physica Status Solidi B: Basic Solid State Physics* **255**(6), 1700587 (2018). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,519, IF 1,454 doi: 10.1002/pssb.201700587
- 53(Г7.12). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, A comparative study of the magnetization in transition metal ion doped CeO_2 , TiO_2 and SnO_2 nanoparticles, *Physica E: Low-dimensional Systems and Nanostructures* **99**, 202 (2018).
ISSN 1386-9477, Q2, SJR 0,538, IF 3,176 doi: 10.1016/j.physe.2018.02.007
- 54(Г7.13). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Theoretical study of room temperature ferromagnetism and band gap energy of pure and ion doped In_2O_3 nanoparticles, *Journal of Magnetism and Magnetic Materials* **456**, 263 (2018).
ISSN 0304-8853, Q2, SJR 0,68, IF 2,683 doi: 10.1016/j.jmmm.2018.02.045
- 55(Г7.14). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Theoretical study of the phonon properties of pure and ion doped CeO_2 nanoparticles, *Solid State Communications* **279**, 17 (2018). ISSN 0038-1098, Q2, SJR 0,45, IF 1,433 doi: 10.1016/j.ssc.2018.05.007
- 56(Г7.15). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Size and doping dependence of the phonon properties of SnO_2 nanoparticles, *Modern Physics Letter B* **32**(21), 1850250 (2018). ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q4, SJR 0,229, IF 0,929
doi: 10.1142/S0217984918502500
- 57(Г7.16). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Magnetic properties of rare earth-doped SnO_2 , TiO_2 and CeO_2 nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **255**(8), 1800179 (2018).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,519, IF 1,454
doi: 10.1002/pssb.201800179

58. Angel T. Apostolov, Iliana N. Apostolova, Julia M. Wesselinowa Theoretical Study of the Multiferroic Behavior of the Magnetic Relaxor Ferroelectric CdCr_2S_4 , *Advances in Materials Physics and Chemistry* **8**, 459-467 (2018).
ISSN (Print) 2162-531X, ISSN (Online) 2162-5328
doi: 10.4236/ampc.2018.812031
- 59(Г7.17). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Ferroelectricity in the multiferroic delafossite CuFeO_2 induced by ion doping or magnetic field, *Solid State Communications* **292**, 11 (2019). ISSN 0038-1098, Q3, SJR 0,419, IF 1,521
doi: 10.1016/j.ssc.2019.01.014
- 60(Г7.18). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Specific absorption rate in Zn-doped ferrites for self-controlled magnetic hyperthermia, *European Physical Journal B* **92**, 58 (2019). ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q2, SJR 0,459 IF 1,347
doi: 10.1140/epjb/e2019-90567-2
61. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Magnetic, electric and phonon properties of pure and ion doped multiferroic HfO_2 nanoparticles, *Годишник на УАСГ* **52(2)**, 391-403 (2019). ISSN 1310-814X
- 62(Г7.19). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Phonon properties of delafossite multiferroic compound CuFeO_2 . Comparison with CuCrO_2 , *Modern Physics Letters B* **33(12)**, 1950141 (2019).
ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q3, SJR 0,258, IF 1,224
doi: 10.1142/S0217984919501410
- 63(Г7.20). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Magnetic and dielectric properties of pure and ion doped RCrO_3 nanoparticles, *European Physical Journal B* **92**, 105 (2019). ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q2, SJR 0,459, IF 1,347
doi: 10.1140/epjb/e2019-100112-x
- 64(Г7.21). A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Origin of ferromagnetism in pure and ion doped pyrite FeS_2 nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **256(10)**, 1900201 (2019).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,504, IF 1,481
doi: 10.1002/pssb.201900201
- 65(B4.4). A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Antiferroelectricity and weak ferromagnetism in rare earth doped multiferroic BiFeO_3 , *Solid State Communications* **300**, 113692 (2019). ISSN 0038-1098, Q3, SJR 0,41, IF 1,521
doi: 10.1016/j.ssc.2019.113692
66. А. Т. Апостолов, И. Н. Апостолова и Ю. М. Веселинова, Микроскопичен модел на трансформацията на магнитна енергия в топлина при лечение на тумори с помощта на магнитни наночастици посредством магнитна хипертермия. Теоретичен модел и пресмятания (част I), *Годишник на УАСГ* **52(4)**, 1171-1196 (2019). ISSN 1310-814X
67. А. Т. Апостолов, И. Н. Апостолова и Ю. М. Веселинова, Микроскопичен модел на трансформацията на магнитна енергия в топлина при лечение на тумори с помощта на магнитни наночастици посредством магнитна хипертермия. Числени пресмятания и дискусия (част II), *Годишник на УАСГ* **52(4)**, 1197-1223 (2019). ISSN 1310-814X
68. A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Antiferroelectricity in ZrO_2 and Ferroelectricity in Zr, Al, La Doped HfO_2 Nanoparticles, *Advances in Materials Physics and Chemistry* **10**, 27-38 (2020). ISSN (Print) 2162-531X, ISSN (Online) 2162-5328
doi: 10.4236/ampc.2019.102003
- 69(Г7.22). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Dielectric Properties in Transition Metal and Rare-Earth-Doped Multiferroic BaTiO_3 Nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **257(9)**, 2000046 (2020).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,51, IF 1,710
doi: 10.1002/pssb.202000046
- 70(Г7.23). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Magnetic field effect on the dielectric properties of rare earth doped multiferroic BiFeO_3 , *Journal of Magnetism and Magnetic Materials* **513**, 167101 (2020). ISSN 0304-8853, Q2, SJR 0,665, IF 2,993
doi: 10.1016/j.jmmm.2020.167101

- 71(Γ7.24). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Co, Fe and Ni ion doped CeO₂ nanoparticles for application in magnetic hyperthermia, *Journal: Physica E: Low-dimensional Systems and Nanostructures* **124**, 114364 (2020).
ISSN 1386-9477, Q2, SJR 0,581, IF 3,382
doi: 10.1016/j.physe.2020.114364
- 72(Γ7.25). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Multiferroic properties of pure and transition metal doped LaFeO₃ nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **258**(2), 2000482 (2020).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q2, SJR 0,51, IF 1,710
doi: 10.1002/pssb.202000482
- 73(Γ7.26). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Multiferroic and phonon properties of pure and ion doped CoCr₂O₄ - bulk and nanoparticles, *Journal of Alloys and Compounds* **852**, 156885 (2021). ISSN 0925-8388, Q1, SJR 1,027, IF 6,371
doi:10.1016/j.jallcom.2020.156885
- 74(Γ7.27). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Differences in the multiferroic properties of AgCrS₂ and AgCrO₂, *Solid State Communications* **323**, 114119 (2021). ISSN 0038-1098, Q3, SJR 0,413, IF 1,934
doi: 10.1016/j.ssc.2020.114119
- 75(Γ7.28). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Microscopic theory of the specific absorption rate for self-controlled magnetic hyperthermia, *Journal of Magnetism and Magnetic Materials* **522**, 167504 (2021). ISSN 0304-8853, Q2, SJR 0,606, IF 3,097
doi: 10.1016/j.jmmm.2020.167504
- 76(Γ7.29). A.T.Apostolov, I.N.Apostolova and J.M.Wesselinowa, Magnetic and electric properties of multiferroic LiFeP₂O₇. Comparison with LiCrP₂O₇, *Modern Physics Letters B* **33**(09), 2150158 (2021).
ISSN (print) 0217-9849, ISSN (online) 1793-6640, Q3, SJR 0,343, IF 1,948
doi: 10.1142/S021798492150158X
- 77(B4.7). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Electric, dielectric and magnetic properties of Ga, Er and Zn ion doped Fe₂O₃ thin films, *Physics Letters A* **393**, 127167 (2021). ISSN 0375-9601, Q2, SJR 0,51, IF 2,707
doi:10.1016/j.physleta.2021.127167
- 78(Γ7.30). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Magnetic, dielectric and optical properties of Al, Mg, Co and Zn ion doped CuCrO₂, *Europhysics Letters* **133**, 47003 (2021). ISSN (print) 0295-5075, ISSN (online) 1286-4854, Q2, SJR 0,525, IF 1,958
doi: 10.1209/0295-5075/133/47003
- 79(B4.5). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Room temperature ferromagnetism in multiferroic BaCoF₄ thin films due to surface, substrate and ion doping effects, *Thin Solid Films* **722**, 138567 (2021). ISSN 0040-6090, Q2, SJR 0,47 IF 2,358
doi: 10.1016/j.tsf.2021.138567
- 80(Γ7.31). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Multiferroic and phonon properties at the phase transition of S = 1/2 chain cuprates NaCu₂O₂. Comparison with LiCu₂O₂, *Phase Transitions* **94**(6-8), 527-535 (2021).
ISSN (print) 1029-0338, ISSN (online) 0141-1594, Q3, SJR 0,282, IF 1,529
doi: 10.1080/01411594.2021.1945059
- 81(B4.10). I. N. Apostolova, A. T. Apostolov, S. Trimper and J. M. Wesselinowa, Multiferroic Properties of Pure, Transition Metal, and Rare Earth–Doped BaFe₁₂O₁₉ Nanoparticles, *Physica Status Solidi B: Basic Solid State Physics* **258**(7), 2100069 (2021).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951 Q3, SJR 0,41, IF 1,782
doi: 10.1002/pssb.202100069
82. I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Enhanced multiferroic properties of relaxor bulk and thin film Na_{0,5}Bi_{0,5}TiO₃, *Solid State Communications* **334-335**, 114393 (2021). ISSN 0038-1098, Q3, SJR 0,413, IF 1,934
doi: 10.1016/j.ssc.2021.114393

- 83(**Γ7.32**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Multiferroic properties of the antiferroelectric-antiferromagnetic $\text{Cu}_9\text{O}_2(\text{SeO}_3)_4\text{Cl}_6$, *Physics Letters A* **407**, 127480 (2021). ISSN (Print) 0375-9601, ISSN (Online) 1873-2429, Q2, SJR 0,531, IF 2,707
doi: 10.1016/j.physleta.2021.127480
- 84(**Γ7.33**). I. N. Apostolova, A. T. Apostolov, S. Trimper and J. M. Wesselinowa, Dielectric properties of relaxor CuCrO_2 at room temperature, *Physica Status Solidi B: Basic Solid State Physics* **258**(10), 2100136 (2021). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,414, IF 1,782
doi: 10.1002/pssb.202100136
- 85(**Γ7.34**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Multiferroic and phonon properties near the phase transitions of pure and ion doped $\text{Ca}_3\text{Mn}_2\text{O}_7$, *Phase Transitions* **94**(10), 705-714 (2021). ISSN (print) 1029-0338, ISSN (online) 0141-1594, Q3, SJR 0,282, IF 1,529
doi: 10.1080/01411594.2021.1966003
86. Angel Apostolov, Iliana Apostolova, Julia Wesselinowa, Multiferroic, phonon and optical properties of pure and ion doped YFeO_3 nanoparticles, *Nanomaterials* **11**, 2731 (2021). ISSN 2079-4991, Q1, SJR 0,839, IF 5,810(2021)
doi: 10.3390/nano11102731
- 87(**Γ7.35**). Iliana Apostolova, Angel Apostolov, J. M. Wesselinowa, Phonon and optical properties of transition metal and rare earth ion doped BaTiO_3 , *Journal of Applied Physics* **130**(17), 175103 (2021). ISSN (print) 1089-7550, ISSN (online) 0021-8979, Q2, SJR 0,668, IF 2,877
doi: 10.1063/5.0069464
- 88(**B4.6**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Substrate and doping effects on the multiferroic properties and the band gap of $\text{Bi}_2\text{FeCrO}_6$ thin films, *Thin Solid Films* **739**, 138977 (2021). ISSN 0040-6090, Q2, SJR 0,47, IF 2,358
doi: 0.1016/j.tsf.2021.138977
89. Angel Apostolov, Iliana Apostolova, Julia Wesselinowa, Polarization, specific heat, band gap and phonon energy of multiferroic GaV_4S_8 , *Solid State Communications* **341**, 114546 (2022). ISSN 0038-1098, Q3, SJR 0,389, IF 2,1
doi: 10.1016/j.ssc.2021.114546
- 90(**Γ7.36**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Application of ion doped $\text{Y}_3\text{Fe}_5\text{O}_{12}$ nanoparticles for self-controlling magnetic hyperthermia, *Physica Status Solidi B: Basic Solid State Physics* **259**(3), 2100545 (2022). ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,401, IF 1,6
doi: 10.1002/pssb.202100545
- 91(**B4.9**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Size, external fields and ion doping effects on the multiferroic properties of hexagonal YMnO_3 nanoparticles, *Materials Today Communications* **30**, 103123 (2022). ISSN 2352-4928, Q2, SJR 0,62, IF 3,8
doi: 10.1016/j.mtcomm.2022.103123
92. A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Specific Absorption rate in ion doped $\text{Y}_3\text{Fe}_5\text{O}_{12}$ nanoparticles for self-controlling magnetic hyperthermia, *International Advanced Research Journal in Science, Engineering and Technology (IARJSET)* **9**(2), 148-163 (2022). ISSN (Print) 2394-1588, ISSN (Online) 2393-8021
doi: 10.17148/IARJSET.2022.9219
- 93(**B4.2**). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Origin of multiferroism in $\text{Sm}_2\text{BaCuO}_5$, *Solid State Communications* **352**, 114808 (2022). ISSN 0038-1098, Q3, SJR 0,41, IF 2,1
doi: 10.1016/j.ssc.2022.114808
94. A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Magnetic and electric properties of multiferroic CuBr_2 , *Journal of Magnetism and Magnetic Materials* **560**, 169633 (2022). ISSN 0304-8853, Q2, SJR 0,549, IF 2,7
doi: 10.1016/j.jmmm.2022.169633
- 95(**B4.8**). I. N. Apostolova, A. T. Apostolov and J. M. Wesselinowa, Multiferroic properties of pure and ion doped BiCrO_3 - bulk and thin films, *Physica Status Solidi B: Basic Solid State Physics* **259**(11), 2200171 (2022).

ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,41, IF 1,6
doi: 10.1002/pssb.202200171

- 96(B4.3). I. N. Apostolova, A. T. Apostolov, J. M. Wesselinowa, Origin of multiferroism of β - NaFeO_2 , *Magnetochemistry* **8**, 104 (2022). ISSN 2312-7481, Q2, SJR 0,43, IF 2,7
doi: 10.3390/magnetochemistry8090104
- 97(B4.1). I. N. Apostolova, A. T. Apostolov, J. M. Wesselinowa, Theoretical study of the multiferroic properties of DyFeWO_6 , *European Physical Journal B* **95**, 133 (2022).
ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q3, SJR 0,4, IF 1,6
doi: 10.1140/epjb/s10051-022-00396-9
- 98(Г7.37). A. T. Apostolov, I. N. Apostolova, J. M. Wesselinowa, Magnetic, electric and optical properties of ion doped CuCr_2O_4 nanoparticles, *Magnetochemistry* **8**, 122 (2022).
ISSN 2312-7481, Q2, SJR 0,42, IF 2,7
doi: 10.3390/magnetochemistry8100122
99. Илиана Апостолова, Ангел Апостолов, Юлия Веселинова, Мултифероици, Светът на физиката, том **XLV**, кн. 2, стр. 159-173 (2022). ISSN 0861-4210
wop.phys.uni-sofia.bg
- 100(Г7.38). I. N. Apostolova, A. T. Apostolov, J. M. Wesselinowa, Size and ion doping effects on magnetic, optical and phonon properties of CuAlO_2 , *Magnetochemistry* **8**, 169 (2022).
ISSN 2312-7481, Q2, SJR 0,42, IF 2,7
doi: 10.3390/magnetochemistry8120169
101. А. Т. Апостолов, И. Н. Апостолова и Ю. М. Веселинова, Физични основи на магнетоелектропорацията. Теоретичен модел. (част I), Годишник на УАСГ **55(4)**, 707-723 (2022). ISSN 1310-814X
102. А. Т. Апостолов, И. Н. Апостолова и Ю. М. Веселинова, Физични основи на магнетоелектропорацията. Числени пресмятания и дискусия (част II), Годишник на УАСГ **55(4)**, 725-761 (2022). ISSN 1310-814X
- 103(Г7.39). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Magnetic, phonon and optical properties of transition metal and rare earth ion doped ZnS nanoparticles, *Nanomaterials* **13**, 79 (2023). ISSN 2079-4991, Q1, SJR 0,81, IF 5,3(2022)
doi: 10.3390/nano13010079
- 104(Г7.40). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Band Gap Tuning in Transition Metal and Rare-Earth-Ion-Doped TiO_2 , CeO_2 , and SnO_2 Nanoparticles, *Nanomaterials* **13**, 145 (2023). ISSN 2079-4991, Q1, SJR 0,81, IF 5,3(2022)
doi: 10.3390/nano13010145
- 105(B4.11). A. T. Apostolov, I. N. Apostolova, S. Trimper and J. M. Wesselinowa, Physical Origin of Magnetoelectroporation, *Physica Status Solidi B: Basic Solid State Physics* **260(3)**, 2200523 (2023).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,41, IF 1,6(2022)
doi: 10.1002/pssb.202200523
106. Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Magnetic and optical properties of pure and ion doped MnFe_2O_4 nanoparticles, *Magnetochemistry* **9**, 76 (2023).
ISSN 2312-7481, Q2, SJR 0,42, IF 2,7(2022)
doi: 10.3390/magnetochemistry9030076
- 107(Г7.41). A. T. Apostolov, I. N. Apostolova and J. M. Wesselinowa, Differences between the multiferroic properties of hexagonal and orthorhombic ion doped YFeO_3 nanoparticles, *International Journal of Modern Physics B* **37(21)**, 2350201 (13 pages) (2023).
ISSN (Print) 0217-9792, ISSN (Online) 1793-6578, Q3, SJR 0,27, IF 1,7(2022)
doi: 10.1142/S0217979223502016
- 108(Г7.42). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Magnetic, optical and phonon properties of ion doped MgO nanoparticles. Application for magnetic hyperthermia, *Materials* **16**, 2353 (2023). ISSN 19961944, Q2, SJR 0,56, IF 3,4(2022)
doi: 10.3390/ma16062353
- 109(Г7.43). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Comparison of the multiferroic properties of ion doped hexagonal LuFeO_3 and LaFeO_3 *Physica Status Solidi B: Basic Solid State Physics*, 2300077 (2023).

ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,401, IF 1,6(2022)
doi: 10.1002/pssb.202300077

- 110(Г7.44). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Band gap energy of ion doped multiferroic NaFeO_2 nanoparticles, Physica Status Solidi (RRL) - Rapid Research Letters 2300159 (2023).
ISSN (Print) 1862-6254, ISSN (Online), 1862-6270, Q2, SJR 0,73, IF 2,8(2022)
doi: 10.1002/pssr.202300159
- 111(Г7.45). Iliana Naumova Apostolova, Angel Todorov Apostolov, Julia Mihailova Wesselinowa, Magnetoelectric coupling effects in Tb doped BiFeO_3 nanoparticles, Magnetochemistry 9, 142 (2023). ISSN 2312-7481, Q2, SJR 0,42, IF 2,7(2022)
doi: 10.3390/magnetochemistry9060142
- 112(Г7.46). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Size and doping effects on the magnetic and electric properties of $\text{Bi}_2\text{Fe}_4\text{O}_9$ nanoparticles, European Physical Journal B 96, Article number: 77 (2023).
ISSN (Print) 1434-6028, ISSN (Online) 1434-6036, Q3, SJR 0,379, IF 1,6(2022)
doi: 10.1140/epjb/s10051-023-00550-x
- 113(Г7.47). Iliana Apostolova, Angel Apostolov and Julia Wesselinowa, Magnetic properties of Gd-Doped Fe_3O_4 nanoparticles, Applied Sciences 13(11), 6411 (2023).
ISSN 2076-3417, Q2, SJR 0,49, IF 2,7(2022)
doi: 10.3390/app13116411
114. Iliana Apostolova, Angel Apostolov, Steffen Trimper and Julia Wesselinowa, Origin of Multiferroism of Ion Doped at Different Sites: $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ Bulk and Nanoparticles, Physica Status Solidi B: Basic Solid State Physics 2300405 (2023).
ISSN (Print) 0370-1972, ISSN (Online) 1521-3951, Q3, SJR 0,401, IF 1,6(2022)
doi: 10.1002/pssb.202300405

IV. ИЗДАДЕНИ УЧЕБНИЦИ И УЧЕБНИ ПОСОБИЯ

Издадени университетски учебници:

- 1(Е19.1). И. Апостолова, А. Апостолов, **Физика с биофизика**, Издателство „Авангард прима”, ISBN 978-619-160-677-1, 323 стр., София (2016).
- 2(Е19.2). И. Апостолова, **Физика с биофизика за еколози**, Издателство „Авангард прима”, ISBN 978-619-239-896-5, 373 стр., София (2023).

Издадени университетски пособия:

3. Й. Георгиева, Р. Дамянова, Н. Минковски, И. Апостолова, **Ръководство за лабораторни упражнения по физика и биофизика**, ISBN 978-954-332-024-0, 212 стр., София (2006).
4. Й. Георгиева, Р. Дамянова, Н. Минковски, И. Апостолова, **Ръководство за лабораторни упражнения по физика и биофизика**, Издателство „Авангард прима”, ISBN 978-619-160-342-8, 237 стр., София (2014).
5. (Е20.1). И. Апостолова, **Тестове по Физика и Физика с биофизика за студентите от Лесотехнически университет**, Издателство „Авангард прима”, ISBN 978-619-239-712-8, 144 стр., София (2022).

януари 2024 г.

Изготвил: 
/доц. д-р Илиана Апостолова/