

E. K. ARUSHANOV

PUBLICATIONS

in refereed journals and full paper published in refereed conference proceedings

1. M. Guc, A.P. Litvinchuk, S. Levchenko, M.Ya. Valakh, I.V. Bodnar, V.M. Dzhagan, V. Izquierdo-Roca, **E. Arushanov**, A. Perez-Rodriguez, Optical phonons in the kesterite Cu₂ZnGeS₄ semiconductor: polarized Raman spectroscopy and first-principle calculations. *RSC Adv.* 2016, **6**, 13278-13285.
2. Maxim Guc, Sergiu Levchenko, Ivan V. Bodnar, Victor Izquierdo-Roca, Xavier Fontane, Larisa V. Volkova, **Ernest Arushanov**, Alejandro Pérez-Rodríguez, Polarized Raman scattering study of kesterite type Cu₂ZnSnS₄ single crystals. *Sci. Rep.* 2016, **6**, 19414/7.
3. W. Desrat, C. Consejo, F. Teppe, S. Contreras, M. Marcinkiewicz, W. Knap, A. Nateprov, **E. Arushanov**, Non-trivial Berry phase in the Cd₃As₂ 3D Dirac semimetal, *J. Phys.: Conf. Ser.* 2015, **647**, 012064.
4. C.P. Weber, **Ernest Arushanov**, Bryan S. Berggren, Tahereh Hosseini, Nikolai Kouklin, Alex Nateprov, Transient reflectance of photoexcited Cd₃As₂. *Appl. Phys. Lett.* 2015, **106**, 231904.
5. **Ernest Arushanov**, Konstantin G. Lisunov, Transport properties of β-FeSi₂. *Jpn. J. Appl. Phys.* 2015, **54**, 07JA02.
6. Galina Gurieva, Sergiu Levchenko, Victor Ch. Kravtsov, Alexander Nateprov, Elisabeth Irran, Ying-Sheng Huang, **Ernest Arushanov**, Susan Schorr, X-ray diffraction investigation on Cu₂ZnSiSe₄ single and polycrystalline crystals. *Z. Kristallogr. - Cryst. Mater.* 2015, **230**, 507-511.
7. N.N. Syrbu, V. Zalamai, M. Guc, S. Levchenko, A. Dorogan, **E. Arushanov**, Birefringence of Cu₂ZnSiSe₄ single crystals. *J. Alloy Compd.* 2015, **635**, 188-193.
8. S. Levchenko, R Caballero, L. Dermenji, E.V. Telesh, I.A. Victorov, J.M. Merino, **E. Arushanov**, M. Leon, I.V. Bodnar, Preparation and optical characterization of Cu₂ZnGeSe₄ thin films. *Opt. Mater.* 2015, **40**, 76-80.
9. Serghei Levchenko, Alexandr Nateprov, Victor Kravtsov, Maxim Guc, Alejandro Pérez-Rodríguez, Victor Izquierdo-Roca, Xavier Fontané, **Ernest Arushanov**, Structural study and Raman scattering analysis of Cu₂ZnSiTe₄ bulk crystals. *Opt. Express* 2014, **22**, A1936-A1943.
10. M. León, S. Levchenko, R. Serna, I. V. Bodnar, A. Nateprov, M. Guc, G. Gurieva, N. Lopez, J.M. Merino, R. Caballero, S. Schorr, A. Perez-Rodriguez, **E. Arushanov**, Spectroscopic ellipsometry study of Cu₂ZnSnSe₄ bulk crystals. *Appl. Phys. Lett.* 2014, **105**, 061909/4.
11. M. Guc, A. P. Litvinchuk, S. Levchenko, V. Izquierdo-Roca, X. Fontané, M. Ya. Valakh, **E. Arushanov**, A. Pérez-Rodríguez, Optical phonons in wurtzstannite Cu₂ZnGeS₄ semiconductor: polarized Raman spectroscopy and first principle calculations. *Phys. Rev. B* 2014, **89**, 205205/7.

12. M. Guc, S. Levchenko, L. Dermenji, G. Gurieva, S. Schorr, N.N. Syrbu, **E. Arushanov**, Excitonic and band-band transitions of Cu₂ZnSiS₄ determined from reflectivity spectra. *Sol. Stat. Commun.* 2014, **190**, 44-48.
13. M. Guc, K.G. Lisunov, E. Hajdeu, S. Levchenko, V. Ursaki, **E. Arushanov**, Variable-range hopping conductivity in Cu₂ZnGeSe₄ single crystals. *Sol. Energ. Mater. Sol. Cells* 2014, **127**, 87-91.
14. M. Guc, R. Caballero, K.G. Lisunov, N. López, **E. Arushanov**, J.M. Merino, M. León, Disorder and variable-range hopping conductivity in Cu₂ZnSnS₄ thin films prepared by flash evaporation and post-thermal treatment. *J. Alloy Compd.* 2014, **596**, 140-144.
15. M. Guc, S. Levchenko, L. Dermenji, G. Gurieva, S. Schorr, N.N. Syrbu, **E. Arushanov**, Exciton spectra and energy band structure of Cu₂ZnSiSe₄. *J. Alloy Compd.* 2014, **587**, 393-397.
16. **E. Arushanov**, S. Levchenko, G. Fuchs, S.-L. Drechsler, Scaling of the temperature dependent resistivity in 111 iron-pnictide superconductors. *J. Supercond. Nov. Magn.* 2013, **26**, 2727-2734.
17. M. Guc, V. Izquierdo-Roca, A. Pérez Rodríguez, G. Gurieva, S. Levchenko, S. Schorr, **E. Arushanov**, Raman spectra of wurtzstannite quaternary compounds. *Phys. Stat. Sol. C* 2013, **10**, 1075-1078.
18. M. Guc, S. Levchenko, L. Dermenji, G. Gurieva, S. Schorr, N.N. Syrbu, **E. Arushanov**, Exciton spectra and energy band structure of Cu₂ZnSiSe₄. *J. Alloys Compounds* 2013, **587**, 393-397.
19. M. Guc, S. Levchenko, V. Izquierdo-Roca, X. Fontane, **E. Arushanov**, A. Pérez Rodríguez, Polarized Raman scattering analysis of Cu₂ZnSnSe₄ and Cu₂ZnGeSe₄ single crystals. *J. Appl. Phys.* 2013, **114**, 193514/1-9.
20. M. Guc, S. Levchenko, V. Izquierdo-Roca, X. Fontane, M. Ya. Valakh, **E. Arushanov**, A. Pérez Rodríguez, Polarized Raman scattering analysis of Cu₂ZnSiS₄ and Cu₂ZnSiSe₄ single crystals. *J. Appl. Phys.* 2013, **114**, 173507/1-9.
21. G. Gurieva, M. Guc, L. I. Bruk, V. Izquierdo-Roca, A. Pérez Rodríguez, S. Schorr, **E. Arushanov**, Cu₂ZnSnS₄ thin films grown by spray pyrolysis: characterization by Raman spectroscopy and X-ray diffraction. *Phys. Stat. Sol. C* 2013, **10**, 1082-1085.
22. M. León, S. Levchenko, R. Serna, A. Nateprov, G. Gurieva, J. M. Merino, S. Schorr, **E. Arushanov**, Spectroscopic ellipsometry study of Cu₂ZnGeSe₄ and Cu₂ZnSiSe₄ crystals. *Mater Chem Phys* 2013, **141**, 58-62.
23. S. Levchenko, M. Guc, C. Merschjann, G. Gurieva, S. Schorr, M. Lux-Steiner, **E. Arushanov**, Photoluminescence spectra of Cu₂ZnGeS₄ single crystals. *Phys. Stat. Sol. C* 2013, **10**, 1079-1081.
24. K.G. Lisunov, M. Guc, S. Levchenko, D. Dumcenco, Y. S. Huang, G. Gurieva, S. Schorr, **E. Arushanov**, Energy spectrum of near-edge holes and conduction mechanisms in Cu₂ZnSiSe₄ single crystals. *J. Alloys Compounds* 2013, **580**, 481-486.

25. K. G. Lisunov, M. Guk, A. Nateprov, S. Levcenko, V. Tezlevan, **E. Arushanov**, Features of the acceptor band and properties of localized carriers from studies of the variable-range hopping conduction in p-Cu₂ZnSnS₄. *Sol. Energy Mat. Sol. Cells* 2013, **112**, 127-133.
26. Levcenko, S.; Tezlevan, V. E.; **Arushanov, E.**; Schorr, S.; Unold, T. Free-to-bound recombination in near stoichiometric Cu₂ZnSnS₄ single crystals. *Phys Rev B*. 2012, **86**, 045206/1-6.
27. Guc, M.; Ursaki, V.V.; Bodnar, I.V.; Lozhkin, D.V.; **Arushanov, E.**; Izquierdo-Roca, V.; Perez Rodriguez, A. Raman scattering investigation of Mn_xFe_{1-x}In₂S₄ solid solutions. *Mater Chem Phys*. 2012, **136**, 883-888.
28. Guk, M.; Merschjann, C.; Bodnar, I.; Tyborski, T.; Schedel-Niedrig, T.; Lux-Steiner, M.; **Arushanov, E.** Photoluminescence spectra of MnIn₂S₄. *Opt Mater*. 2012, **34**, 915-919.
29. León, M.; Levcenko, S.; Bodnar, I.; Serna, R.; Merino, J.M.; Friedrich, E.J.; **Arushanov, E.** Determination of the dielectric function of MnIn₂S₄ single crystals by spectroscopic ellipsometry. *J Phys Chem Solids*. 2012, **73**, 720-723.
30. Levcenco, S.; Dumcenco, D.; Wang, Y.P.; Huang, Y.S.; Ho, C.H.; **Arushanov, E.**; Tezlevan, V.; Tiong, K.K. Influence of anionic substitution on the electrolyt electroreflectance study of band edge transitions in single crystal Cu₂ZnSn(S_xSe_{1-x})₄ solid solutions. *Opt Mater*. 2012, **34**, 1362-1365.
31. Levcenco, S.; Dumcenco, D.O.; Wang, Y.P.; Wu, J.D.; Huang, Y.S.; **Arushanov, E.**; Tezlevan, V.; Tiong, K.K. Photoluminescence and Raman scattering characterization of Cu₂ZnSiQ₄ (Q=S, Se) single crystals. *Opt Mater*. 2012, **34**, 1072-1076.
32. Schumann, J.; Lisunov, K.G.; Escoffier, W.; Raquet, B.; Broto, J.-M.; **Arushanov, E.**; Mönch, I.; Makarov, D.; Deneke, Ch.; Schmidt, O.G. Magnetoresistance of rolled-up Fe₃Si nanomembranes. *Nano*. 2012, **23**, 255701/1-5.
33. **Arushanov, E.**; Levcenko, S.; Fuchs, G.; Drechsler, S.-L. Scaling of the Temperature Dependent Resistivity in 11 Iron-Pnictide Superconductors. *J Supercond Nov Magn*. 2012, **6**, 1753-1759.
34. Guc, M.; Lisunov, K.; Nateprov, A.; Levcenko, S.; Tezlevan, V.; **Arushanov, E.** Transport properties of Cu₂ZnSnS₄. *Mold J Phys Sci*. 2012, **11(1-2)**, 41-51.
35. Bruc, L.I.; Guc, M.; Rusu, M.; Sherban, D.A.; Simashkevich, A.V.; Shorr, S.; Izquierdo-Roca, V.; Perez-Rodriguez, A.; **Arushanov, E.K.** Kesterite thin films of Cu₂ZnSnS₄ obtained by spray pyrolysis. In: *Proceedings of 27th European Photovoltaic Solar Energy Conference and Exhibition* 2012, p. 2763-2766.
36. **Arushanov, E.**; Fuchs, G.; Levcenko, S.; Drechsler, S.L.; Holzapfel, B.; Schultz, L. Scaling of the temperature-dependent resistivity in 122 iron-pnictide superconductors. *Supercond Sci Tech*. 2011, **24**, 105004/1-6.
37. **Arushanov, E.**; Levcenko, S.; Fuchs, G.; Drechsler, S.-L. Resistivity scaling 1111 iron-pnictide superconductors. *Physica C*. 2011, **471**, 509-514.

38. Arushanov, E.; Levchenko, S.; Fuchs, G.; Holzapfel, B.; Drechsler, S.-L.; Schultz, L. Scaling of the temperature-dependent resistivity in $\text{SrFe}_{2-x}\text{Ni}_x\text{As}_2$. *Physica C*. 2011, **471**, 237-241.
39. Arushanov, E.; Levchenko, S.; Fuchs, G.; Holzapfel, B.; Drechsler, S.-L.; Schultz, L. Scaling of the Temperature Dependent Resistivity and Hall Effect in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)\text{As}_2$. *J Supercond Nov Magn*. 2011, **24**, 2285-2292.
40. Levcenco, S.; Dumcenco, D.; Huang, Y.S.; Arushanov, E.; Tezlevan, V.; Tiong, K.K.; Du, C.H. Absorption-edge anisotropy of $\text{Cu}_2\text{ZnSiQ}_4$ ($\text{Q} = \text{S}, \text{Se}$) quaternary compound semiconductors. *J Alloy Compd*. 2011, **509**, 4924-4928.
41. Levcenco, S.; Dumcenco, D.; Huang, Y.S.; Arushanov, E.; Tezlevan, V.; Tiong, K.K.; Du, C.H. Polarization-dependent electrolyte electroreflectance study of $\text{Cu}_2\text{ZnSiS}_4$ and $\text{Cu}_2\text{ZnSiSe}_4$ single crystals. *J Alloy Compd*. 2011, **509**, 7105-7109.
42. Levcenco, S.; León, M.; Gurieva, G.; Serna, R.; Merino, J.M.; Friedrich, E.J.; Arushanov, E.; Bodnar, I.V. Comparative study of tetragonal $\text{Cu}_2\text{In}_7\text{Se}_{11.5}$ and trigonal CuIn_5Se_8 by spectroscopic ellipsometry. *Mater Chem Phys*. 2011, **125**, 77-81.
43. Lisunov, K.G.; Vinzelberg, H.; Arushanov, E.; Schumann, J. Variable-range hopping conduction and metal-insulator transition in amorphous $\text{Re}_x\text{Si}_{1-x}$ thin films. *Semicond Sci Tech*. 2011, **26**, 95001/1-8.
44. Lisunov, K.G.; Vinzelberg, H.; Arushanov, E.; Schumann, J. Variable-range hopping conduction and metal-insulator transition in amorphous $\text{Re}_x\text{Si}_{1-x}$ thin films. *Semicond Sci Tech*. 2011, **26**, 95001-1-95001-4.
45. Arușanov, E.; Culic, L.; Gașin, P.; Simașchevici, A.; Șerban, D. Noi materiale semivînăstoare și structuri pentru conversiunea fotovoltaică a energiei solare. *Akademos*. 2011, **4** (19), 9197.
46. Rusu, M.; Wiesner, S.; Würz, R.; Lehmann, S.; Doka-Yamigno, S.; Meeder, A.; Fuertes Marrón, D.; Bär, M.; Koteski, V.; Mahnke, H.-E.; Arushanov, E.; Beckmann, J.; Höhn, K.; Fritsch, W.; Bohnea, W.; Schubert-Bischoff, P.; Heukens, M.; Jäger-Waldau, A.; Rumberg, A.; Schedel-Niedrig, Th. CuGa_xSe_y chalcopyrite-related thin films grown by chemical close-spaced vapor transport (CCSVD) for photovoltaic application: Surface- and bulk material properties, oxidation and surface Ge-doping. *Sol Energ Mat Sol Cells* 2011, **95**, 1555-1580.
47. Koteski, V.; Doka-Yamigno, S.; Hofsteter, J.; Rusu, M.; Mahnkel, H.-E.; Lux-Steiner, M. Ch.; Schedel-Niedrig, Th.; Arushanov, E. Germanium doping of wider-band-gap CuGaSe₂ chalcopyrites: Local and electronic structure. *Phys. Rev. B*. 2010, **81**(24), 245213/1-8.
48. Leon, M.; Levcenko, S.; Serna, R.; Gurieva, G.; Nateprov, A.; Merino, J. M.; Friedrich, E.J.; Schorr, S.; Arushanov, E. Optical constants of $\text{Cu}_2\text{ZnGeS}_4$ bulk crystals. *J. Appl. Phys*. 2010, **108**(9), 093502/1-5.
49. Levcenko, S.; Doka-Yamigno, S.; Tezlevan, V.; Fuertes Marrón, D.; Kulyk L; Schedel-Niedrig, T.; Lux-Steiner, M. Ch.; Arushanov, E. Temperature dependence of the exciton gap in monocrystalline CuGaS₂. *Physica B*. 2010, **405**(17), 3547-3550.

50. Levchenko, S.; Dumcenco, D.; Huang, Y. S.; **Arushanov, E.**; Tezlevan,V.; Tiong, K. K.; Du, C. H. Near-band-edge anisotropic optical transitions in wide band gap semiconductor Cu₂ZnSiS₄. *J. Appl. Phys.* 2010, **108**(7), 073508/1-5.
51. Levchenko, S.; Dumcenco, D.; Huang, Y. S.; **Arushanov, E.**; Tezlevan,V.; Tiong, K. K.; Du, C. H. Temperature-dependent study of the band-edge excitonic transitions of Cu₂ZnSiS₄ single crystals by polarization-dependent piezoreflectance. *J. Alloys Compounds*. 2010, **506**(1), 46-50.
52. Levchenko, S.; Duran, L.; Gurieva, G.; Alonso, M. I.; **Arushanov, E.**; Durante Ricon, C.A.; Leon, M. Optical constants of Cu(In_{1-x}Ga_x)₅Se₈ crystals. *J. Appl. Phys.* 2010, **107**(3), 033502/1-6.
53. **Arushanov, E.K.**; Lisunov, K.G.; Schumann, J.; Vinzelberg, H. Unconventional metal-insulator transition in Re_xSi_{1-x}. *Mold. J. Phys. Sciences*. 2010, **9**(3), 252-256.
54. Levchenko, S.; Gurieva, G.; Friendrich, E. J.; Trigo, J.; Ramiro, J.; Merino, J. M.; **Arushanov, E.**; Leon, M. Optical constants of CuIn_{1-x}Ga_xSe₂ films deposited by flash evaporation. *Mold. J. Phys. Sciences*. 2010, **9**(2), 148-155.
55. Thomas, J.; Schumann, J.; Vinzelberg, H.; **Arushanov, E.**; Engelhard, R.; Schmidt, O.; Gemming, T. Epitaxial Fe₃Si films on GaAs(100) substrates by means of electron beam evaporation. *Nanotechnology*. 2009, **20**, 235604/1-9.
56. Leon, M.; Serna, R.; Gurieva, G.; Levchenko, S.; Friedrich, E.; Merino J.; **Arushanov, E.** Dielectric functions of CuIn_{1+2n}Se_{2+3n} and CuGa_{1+2n}Se_{2+3n} (n=2.5, 3.0, 3.5), *Physica Status Solidi C* 2009, **6**, 1074-1077.
57. **Arushanov, E.**; Lisunov, K.; Vinzelberg, H.; Behr, G.; Schumann, J.; Schmidt, O. Hopping conductivity and spectrum of localized carriers in Beta- FeSi₂:Mn, *Moldavian Journal of the Physical Sciences* 2009, **8**, 43-53.
58. Leon, M.; Levchenko, S.; Merino, J.; Friendrich, E.; **Arushanov, E.** Optical properties and electronic structure of polycrystalline Cu-(In_{1-x}Ga_x)-Se alloys, *Moldavian Journal of the Physical Sciences* 2009, **8**, 54-62.
59. Lisunov, K.; **Arushanov, E.**; Wizent, N.; Waske, A.; Werner, J.; Tristan, N.; Sekar, C.; Krabbes. G.; Behr, G.; Bechner, B. Quasi one-dimensional hopping conductivity of the nonstoichiometric spin-ladder CaCu₂O₃ single crystals, *Moldavian Journal of the Physical Sciences* 2009, **8**, 36-40.
60. S. Lehmann, D. Fuentes Marryn, M. Tovar, Y. Tomm, C. Wolf, S. Schorr, T. Schedel-Niedrig, **E. Arushanov**, M. Ch. Lux-Steine, A structural study on the CuGaSe₂-related copper-poor materials CuGa₃Se₅ and CuGa₅Se₈: thin-film vs. bulk material, *Phys. Status Solidi A* 2009, **206**(5), 1009-1012.
61. G. Fuchs, S.-L. Drechsler, N. Kozlova, G. Behr, K. Nenkov, A. Küller, **E. Arushanov** et. al., Orbital and spin effects for the upper critical field in strongly disordered iron pnictide superconductors, *New Journal of Physics* 2009, **11**, 075007/1-26.

62. L. Kulyuk, M. Leon, **E. Arushanov**, G. Buinitskaya, C. Gherman, V. Mirovitskii, A. Nateprov, N. Ilyin, N. Sherstyuk, E. Mishina, Comparative study of Reflected Second Harmonic Generation in CuGa₃Se₅ and CuGa₅Se₈ Single Crystals, Abstracts, Int. Conf. Ternary Multinary Compounds, Berlin, 2008 (accepted).
63. S. Lehmann, D. Fuertes Marryn, R. Feyerherm, M. Reehuis, M. Tovar, J.M. Merino, M. Leon, J. Friedrich, Y. Tomm, C. Wolf, S. Schorr, T. Schedel-Niedrig, **E. Arushanov** and M.Ch. Lux-Steiner, Structural properties of chalcopyrite-related 1:3:5 copper-poor compounds and their influence on thin-film devices, MRS 2009, San Francisco, April 13-17, 2009
64. M. Leon , R. Serna, G. Gurieva, S. Levchenko, E.J. Friedrich, J. M. Merino and **E. Arushanov** , Dielectric functions of CuIn_{1+2n}Se_{2+3n} and CuGa_{1+2n}Se_{2+3n} (n=2.5, 3.0, 3.5). Abstracts, Int. Conf. Ternary Multinary Compounds, Berlin, 2008 (accepted).
65. M. Leon , R. Serna, S. Levchenko, G. Gurieva, J. M. Merino, E.J. Friedrich, S. Lehmann, Th. Schedel-Niedrig , S. Schorr, M. Ch. Lux-Steiner and **E. Arushanov**, Characterisation of Cu(In_{1-x}Gax)5Se₈ by spectroscopic ellipsometry. Physica Status Solidi (C). 2009, vol. 6, nr. 5, p. 1078-1081.
66. S. Doka, M. Rusu, V. Koteski, J. Hofstetter, **E. Arushanov**, H.-E. Mahnke, Th. Schedel-Niedrig, M. Ch. Lux-Steiner, Local Atomic Structure of Germanium Impurities in Wide-band Gap CuGaSe₂ Chalcopyrite, E-MRS, May 2008
67. **E. Arushanov**, K. G. Lisunov, H. Vinzelberg, G. Behr, J. Schumann, and O. Schmidt, Hopping conductivity in Mn- doped □-FeSi₂ single crystals, J. Appl. Phys. **104**, 053720/1-6 (2008).
68. M. Leon, R. Serna, S. Levchenko, G. Gurieva, J. M. Merino, E.J. Friedrich, and **E. Arushanov**, Analysis of the optical properties of Cu(In_{1-x}Gax)3Se₅ crystals, J. Appl. Phys. **104**, 093507/1-5 (2008).
69. H. Vinzelberg, J. Schumann, D. Elefant, J. Thomas, **E. Arushanov**, and O.G. Schmidt, Transport and magnetic properties of Fe₃Si epitaxial films, J. Appl. Phys. **104**, 093707/1-6 (2008).
70. M. Leyn, R. Serna, S. Levchenko, A. Nicorici , J. M. Merino, E.J. Friedrich, and **E. Arushanov**, Dielectric functions and optical constants modelling for CuIn₃Se₅ and CuIn₅Se₈ , J. Appl. Phys. **103**, 103503/1-5 (2008).
71. K. G. Lisunov, N. Wizent, A. Waske, J. Werner, N. Tristan, C. Sekar, G. Krabbes, G. Behr, **E. Arushanov**, and B. Böchner, Quasi-one-dimensional hopping conductivity of the spin-ladder CaCu₂O₃ single crystals: Influence of the cation and oxygen nonstoichiometry, J. Appl. Phys. **103**, 123712/1-6 (2008).
72. S. Levchenko, N. N. Syrbu, V. E. Tezlevan, **E. Arushanov**, J. M. Merino, and M. Leyn, Exciton spectra and energetic band structure of CuGaSe₂ single crystals J. Phys. D 41, 055403/1- 10 (2008)
73. S. Levchenko, N. N. Syrbu, V. E. Tezlevan, **E. Arushanov**, S. Doka-Yamango, Th. Schedel-Niedrig and M.Ch. Lux-Steiner, Optical spectra and energy band structure of single crystalline CuGaS₂ and CuInS₂, J. Phys.: Condens. Matter 19, 456222/1-13 (2007).

74. M. Leyn, S. Levchenko, A. Nateprov, A. Nicorici, J. M. Merino, E. J. Friedrich, R. Serna and **E. Arushanov**, Optical constants of CuGa₅Se₈ Crystals, *J. Appl. Phys.* **102**, 113503/1-5 (2007)
75. S. Lehmann , D. Fuertes Marryn, G. Wagner, M. Tovar , Y. Tomm, S, Fiechter, **E. Arushanov**, Th. Schedel-Niedrig and M.Ch. Lux-Steiner, CuGaSe₂ related defectcompounds: which structure is the right one and do they limit the performance of CuGaSe₂ based devices? MRS, 2007 (USA)
76. M. Grossberg, J. Krustok, A. Jagomđgi, A.Nateprov, M. Leon, **E. Arushanov**, I. Bodnar, Investigation of potential and compositional fluctuations in CuGa₃Se₅ crystals using photoluminescence spectroscopy., *Thin Solid Films* **515**, 6204-6207 (2007).
77. Serge Doka, Jasmin Hofstetter, Marin Rusu, **Ernest Arushanov**, Lips Klaus, Thomas Schedel-Niedrig, and Martha Ch. Lux- Steiner, Electron Spin Resonance and Ultra Violet (UV) Photoluminescence of Ge Implanted CuGaSe₂ Thin Films Prepared by the CCSVT (Chemical Close-spaced Vapor Transport Technique); *Mat. Res. Soc. Symp. Proc.* Vol. **1012** (2007) p. 393-399
78. M. Buchmeier, C.M. Schneider, J. Werner, D. Elefant, A. Teresiak, G. Behr, J. Schumann and **E. Arushanov**, Magnetic properties of polycrystalline Co₂Cr_{1-x}Fe_xAl alloys *J. Mag. Mag. Mater.*, 313, 157-163 (2007).
79. M. Leyn, R. Serna, S. Levchenko, A. Nateprov, A. Nicorici, J. M. Merino, **E. Arushanov**, Modeling the optical constants of Cu₂In₄Se₇ and CuGa₃Se₅ Crystals, *J. Appl. Phys* **101**, 013524/1-4 (2007).
80. M. Leyn, S. Levchenko, A. Nateprov, A. Nicorici, M. Merino, R. Serna, **E. Arushanov**. Dielectric functions and fundamental band gaps of Cu₂In₄Se₇, CuGa₃Se₅ and CuGa₅Se₈ Crystals, *J. Phys. D* **40**, 740-748 (2007).
81. M. Leyn, J.M. Merino, and **E. Arushanov**, Comparative study of structural and optical parameters of CuInSe₂ and various CuIn_xSe_y compounds, *Mold. J. Phys. Sciences*, V5, N3-4, p.373-381, 2006
82. **E. Arushanov**, S. Siebentritt, T. Schedel-Niedrig, and M. Ch. Lux-Steiner, Hopping conductivity in p-CuGaSe₂ films , *J. Appl. Phys.* **100**, 063715/1-4 (2006).
83. K. G. Lisunov, **E. Arushanov**, B. Raquet, J.M.Broto F. C. Chou, N. Wizent, G. Behr, Hopping conductivity in CaCu₂O₃ single crystals, *J. Phys. Condens. Matter.* **18**, 8541–8549 (2006).
84. **E. Arushanov**, K. G. Lisunov, H. Vinzelberg, G. Behr and J. Schumann, Transport properties of Co- doped □- FeSi₂ single crystals, *J. Appl. Phys.* **100**, 113704/1-6 (2006).
85. M. Leyn, S. Levchenko, N. N. Syrbu, A. Nateprov, V. Tezlevan, J. M. Merino and **E. Arushanov**, Fundamental absorption edge in CuIn₅Se₈ and CuGa₃Se₅ single crystals, *Phys. Stat. Sol. A* 2006, v. 203, pp.2904-08.
86. **E. Arushanov**, S. Levchenko, N. N. Syrbu, A. Nateprov, V. Tezlevan, J. M. Merino and M. Leyn, Urbach's tail in the absorption spectra of CuIn₅Se₈ and CuGa₃Se₅ single crystals, *Phys. Stat. Sol. A* 2006, v. 203, pp.2909-12.

87. M. Leyn, R. Serna , S. Levchenko, A. Nateprov, A. Nicorici , J. M. Merino and **E. Arushanov**, Optical characterization of CuIn3Se5, CuGa3Se5 and CuGa5Se8 crystals by spectroscopic ellipsometry, Phys. Stat. Sol. A 2006, v. 203, pp.2913-18.
88. L. Kulyuk, V. Mirovitskii, **E. Arushanov**, V. Tezlevan, M. Leon, E. Mishina, N. Sherstyuk, T. Dumouchel, E. Fortin, and Th. Rasing, Structural investigation of CuIn5Se8 single crystals by optical second harmonic generation, ellipsometry and photoluminescence, Appl. Phys. Lett. **89**, 151915/1- 3 (2006).
89. S. Doka, J. Hofstetter, S. Lehmann, M. Rusu, A. Meeder, D. Fuertes Marry, **E. Arushanov**, N. Fabre, S. Fiechter, K. Lips, E. Mahnke, Th. Schedel-Niedrig, M. Ch. Lux-Steiner, Ge in CuGaSe2-electronic, structural and compositional studies, EMRS, Nice 2006.
90. S. Levchenko, N. N. Syrbu, A. Nateprov, **E. Arushanov** , J. M. Merino, and M. Leyn, Optical properties of CuGa3Se5 single crystal, J. Phys. D Appl. Phys. 39, 1515-1520 (2006).
91. S. Levchenko, N. N. Syrbu, **E. Arushanov**, V. Tezlevan,R. Fernández-Ruiz , J. M. Merino and M. Leyn , Optical properties of monocrystalline CuIn5Se8, J. Appl. Phys. 99, 073513/1-7 (2006).
92. M.Goiran, M. Costes, J.-M. Broto, F. C. Chou, **E. Arushanov**, S.Drechsler, B. Buechner, and V. Kataev, Ground state of the spin magnet CaCu₂O₃ probed by high field ESR , New J. Physics 8, 74/1-14 (2006).
93. **E. Arushanov**, S.Levchenko, H El Alami, and C.Deville Cavellin, Scaling properties of Yba₂Cu₃O_x films, Supercond. Sci. Technol.2005, v.18, pp.1437-1440.
94. S. Doka, M. Rusu, A. Meeder, **E. Arushanov**, N. Fabre, S. Fiechter, Th. Schedel-Niedrig, and M. Ch. Lux-Steiner, Effect of Ge-implantation on the photoluminescence of CuGaSe2 thin films, Mater. Res. Soc. Symp. Proc. V.865 (2005 Mat. Res. Soc.) pp.F5.27.1-5. Symposium on Thin-Film Compound Semiconductor Photovoltaics held at the 2005 MRS Spring Meeting, Date: MAR 29-APR 01, 2005 San Francisco THIN-FILM COMPOUND SEMICONDUCTOR PHOTOVOLTAICS Volume: 865 Pages: 209-213 Published: 2005
95. K. G. Lisunov, **E. Arushanov**, H. Vinzelberg , G. Behr and J. Schumann, Hopping conductivity in Cr- doped □- FeSi₂ single crystals, J.Appl. Phys. 2005, v. 97, pp. 093706/1-5.
96. **E. Arushanov**, S.Sibentritt, T. Schedel-Niedrig and M. Ch. Lux-Steiner, Defect band transport in p-CuGaSe2, J. Phys: Condens. Matter. 2005, v. 17, pp. 2699-2704.
97. Leyn M., Ruiz R. Fernández , Tezlevan V., **Arushanov. E.**, Point groups determination of a CuIn₄Se₆ single crystal, Mold. J. Phys. Sciences 2004, v.3-4, pp.299-305 .
98. **E. Arushanov**, H. Vinzelberg, G. Behr , J. Schumann , Magnetic and electrical properties of □-FeSi₂ single crystals, Mold. J. Phys. Sciences 2004, v.3-4, pp. 265-271.
99. **E. Arushanov**, Scaling properties of CaCuO₂ films, Mold. J. Phys. Sciences 2004, v.3, pp.149-153.

100. **E.Arushanov**, G.Behr, and J.Schumann, Magnetic properties of \square -FeSi2 single crystals, Thin Solid Films 2004, v. 461, pp.148-151.
101. **E.Arushanov**, K.Nenkov, D.Eckert, H. Vinzelberg, U.K.Rossler, G.Behr, K.- H.Muller, and J.Schumann, Magnetic and electrical properties of Cr- and Ni-doped \square -FeSi2 single crystals, J.Appl. Phys. 2004, v. 96, pp.2115-2121.
102. K .Lisunov, B.Raquet, H.Rakoto, J.M.Broto, **E.Arushanov**, X.Z.Xu, H.El Alami, C.Deville Cavellin, Variable-range hopping in the thin film of the ladder compound [CaCu₂O₃]₄ , J. Appl. Phys. 2003, v.94, pp.5912-5917.
103. A.Meeder, A.Jдger-Waldau, V. Tezlevan, **E. Arushanov**, T. Schedel-Niedrig and M. Ch. Lux-Steiner, Determination and analysis of the temperature dependence of the exiton gap in monocrystalline CuGaSe₂ , J.Phys : Condens. Matter 2003, v.15, pp.6219-6229.
104. A. Meeder, D. Fuertes Marron, V. Tezlevan, **E. Arushanov**, M. Kunst, A. Rumberg, T. Schedel-Niedrig and M. Ch. Lux-Steiner, Radiative recombination in CVT-grown CuGaSe₂ single crystals and thin films, Thin Solid Films, 2003, v.431-432, pp.214-218.
105. **E.Arushanov**, Possible new material candidate for solar cell application, Mold. J. Phys. Sciences 2002, v.1, p.96-99.
106. **E.Arushanov**, L.Ivanenko, D.Eckert, G.Behr, U.K.Rossler, K.-H.Muller, C.Schneider, and J.Schumann, Magnetic properties of undoped and Co-doped n-type \square -FeSi2.5 single crystals, J.Material Research 2002, v. 17, pp.2960-2966.
107. K.G. Lisunov, **E. Arushanov**, J.H. Schцn , G. A. Thomas and E. Bucher, Variablerange hopping conductivity and magnetoresistance in n-CuGaSe₂, Moldavian J.Physics (2002).
108. E.Arushanov, H. Vinzelberg, L.Ivanenko, D.Eckert, G.Behr, U.K.Rossler, K.-H.Muller, C.Schneider, and J.Schumann, Magnetic and electrical properties of Mn-doped p-type \square -FeSi2 single crystals, J.Appl.Phys. 2002, v.92, pp.5413-5419.
109. **E. Arushanov**, L.Kulyuk, O.Kulikova, V.Tezlevan, R. Fernбndez Ruiz and M.Leyn, Optical study of monocrystalline CuIn₄Se₆, J.Phys.D Applied Physics 2001, v.34, pp. 3480-3484.
110. J.H.Schon, M.Dorget, F.C.Beuran, X.Z.Xu, **E.Arushanov**, M.Lagues and C.Deville-Cavellin, Field-induced superconductivity in a spin-ladder cuprate, Science 2001, 293, 2430.
111. **E.Arushanov** , J.H.Schцn , and H.Lange, Transport properties of Cr-doped \square -FeSi2 , Thin Solid Films 2001, v.381, pp.282-286.
112. **E. Arushanov** , L.Kulyuk , O.Kulikova , V.Tezlevan , R. Fernбndez and M.Leyn, Optical and Structural properties of n-CuIn₃Se₅ single crystals, Jpn. J. Appl. Phys. Supplement 2000, v.39-41, pp.90-91.
113. K.G. Lisunov, **E. Arushanov**, J.H. Schцn , G. A. Thomas and E. Bucher, Variablerange hopping conductivity and magnetoresistance in n-CuGaSe₂, J. Appl.Phys. 2000, v. 88, pp.4128-4134.

114. **E. Arushanov**, J.H. Schon, Jun-ichi Tani and Hiroyasu Kido, Transport properties of \square -Fe_{1-x}Mn_xSi₂ alloys, phys. stat. sol. A 2000, v. 181, pp. 185-191.
115. J. H. Schon , **E. Arushanov**, N. Faber, E. Bucher, Transport properties of n-type CuGaSe₂, Solar Energy Mater. and Solar Cells, 2000,v.61, pp.417-426.
116. J.H. Schon, Ch. Kloc, **E. Arushanov**, G. A. Thomas, and E. Bucher, On the Metal-Insulator Transition in n-Type Doped CuGaSe₂, J. Phys.: Condens. Matter, 2000, v.12, pp.4603-4611.
117. **E.Arushanov**, W.Kaefer, K.Fess, Ch.Kloc, K.Friemelt, and E.Bucher, Transport properties of n-ZrNiSn single crystals , phys.stat. sol. A , 2000, v.177, N2, pp.511-520.
118. **E.Arushanov**, M.Respaud, H.Rakoto, J.M.Broto, and T.Caillat, Shubnikov-de Haas oscillations in CoSb₃ single crystals, Phys.Rev.B 2000 , v.61, N7, pp.4672-4676.
119. **E. Arushanov**, J.H. Schon, H.Matsushita, and T. Takizawa, Impurity band in p-type CuInSe₂, Phys.St.Sol.A 1999, v.176, pp.1009-1016.
120. J.H. Schiцн , N. Fabre, J. Oestreich, O. Schenker, H. Riazi-Nejad, M. Klenk, **E. Arushanov**, and E. Bucher, N-Type Conduction in Ge-doped CuGaSe₂, Appl.Phys.Lett. 1999, v.75, pp.2969- 2973.
121. H.Rakoto, M.Respaud, J.M.Broto, **E.Arushanov**, and T.Caillat, The valence band parameters of CoSb₃ determined by Shubnikov-de Haas effect, Physica B 1999, v. 269, pp.13-16.
122. **E.Arushanov**, Y.Tomm, L.Ivanenko, and H.Lange, Hole mobility in Cr-doped p-type \square -FeSi₂ single crystals, Phys.St.Sol.B 1998 , v.210, pp.187-194.
123. H.Schiцн, **E.Arushanov**, L.L.Kulyuk, A.Micu, D.Shaban, V.Tezlevan, N.Fabre, and E.Bucher, Electrical and optical characterization of ion-implanted CuGaSe₂ single crystals, J.Appl.Phys. 1998, v.84, pp.1274-1278.
124. **E.Arushanov**, V.Zhitar, W.Knap, O.Kulikova, L.Kulyuk, and A.Siminel, Optical absorption of CdGa₂S₄ single crystals, Proc.Intern.Semicond.Conf.Sinaya, Romania, ICCE,1998, p.p.507-510.
125. Rakoto, **E.Arushanov**, M.Respaud, J.M.Broto, J.Leotin, Ch.Kloc, E.Bucher and S.Askenazy, Shubnikov-de Haas oscillation in CoSb₃ single crystals under high magnetic fields, Physica B 1998 , v.246-247, pp.528-531.
126. **Arushanov**, H.Lange and J.Werner, Hole mobility in p-type \square -FeSi₂ single crystals, Phys.St.Sol.A 1998, v.166, pp.853-859.
127. **Arushanov**, H.Rakoto, M.Respaud, J.M.Broto, J.Leotin, K.Fess, K.Lisunov and E.Bucher , Magnetoresistance of CoSb₃ single crystals, Proc. Suppl.Balkan Phys.Lett.1997, v.5, pp.2567-2570.
128. J.H.Schiцн, **E.Arushanov**, L.L.Kulyuk, A.Micu, D.Shaban, V.Tezlevan, N.Fabre, and E.Bucher, Electrical , photoluminescence and reflected second harmonic generation characterization of Ge- and B-implanted CuGaSe₂ single crystals, Proc. Int.Conf. on

Ternary and Multinary Compounds, Salford, UK, 1997 (Inst. Phys. Conf. Ser. No 152, 1998 IOP Publishing Ltd), pp.429-432.

129. K.Fess, **E.Arushanov**, W.Kaefer , Ch.Kloc, and E.Bucher, Transport properties of the skutterudite CoSb₃, Proc. Int.Conf.on Thermoelectrics, Dresden, Germany, 1997, p.347.
130. **E.Arushanov**, V.Popov, and Yu.Roznovan, Transport properties of CdSb single crystals, Proc.Intern.Semicond.Conf.Sinaia, Romania, ICCE,1997, p.p.57-59.
131. **E.Arushanov**, K.Fess, W.Kaefer, Ch.Kloc, and E.Bucher, Transport properties of lightly doped CoSb₃ single crystals, Phys.Rev.B 1997, v.56, pp.1911-1917.
132. **E.Arushanov**, M.Respaud, J.M.Broto, J.Leotin , S.Askenazy, Ch.Kloc, E.Bucher, and K.Lisunov, Band parameters of FeSi single crystals determined by magnetic measurements, Phys.Rev.B 1997 ,v.55,pp.8056-8059.
133. **E.Arushanov**, K.Lisunov, Ch.Kloc, U.Malang and E.Bucher, Negative magnetoresistance in p-type \square -FeSi₂ in two regimes of variable-range hopping, Phys.Rev.B 1997, v.56, pp.1005-1008.
134. J.H.Schüpp, **E.Arushanov**, Ch.Kloc, and E.Bucher, Electrical and photoluminescence properties of CuInSe₂ single crystals,J.Appl.Phys. 1997, v.81, pp.6205-6209.
135. J.M.Broto, **E.Arushanov**, H.Rakoto, M.Respaud, J.Leotin, E.Bucher, Ch.Kloc, and K.Lisunov, Magnetoresistance of FeSi in the region of variable-range hopping, High Magnetic Fields in the Physics of Semiconductors ,v.I (Proc.Int.Conf.High Magnet.Fields Semicond. Phys., Wurzburg, 1996) 1997, pp.395-398.
136. **E.Arushanov**, R.Carles, Ch.Kloc,E.Bucher,J.Leotin, and D.Smirnov, Optical studies of monocrystalline \square -FeSi₂, Compound Semiconductors 1996.Proc. 23rd International Symposium on Compound Semiconductors,St.Petersburg, Russia,1996, IOP Publ.
137. **E.Arushanov**, E.Bucher, K.Frimelt, O.Kulikova, L.Kulyuk, A.N.Nateprov , and A.Siminel, Photoconductivity, luminescence and optical properties of WS₂ single crystals, Proc.Intern.Semicond.Conf.Sinaya, Romania, ICCE,1996, pp.615-619.
138. K.Lisunov, **E.Arushanov**, Ch.Kloc, J.-M.Broto, J.Leotin,H.Rakoto,M.Respaud, and E.Bucher, Conductivity and magnetoresistance of FeSi in the Anderson-localised regime, Physica B 1996, v.229, pp.37-48.
139. J.H.Schüpp, F.P.Baumgartner, **E.Arushanov**, H.Riazi-Nejad, Ch.Kloc, and E.Bucher, Photoluminescence and electrical properties of Sn doped CuGaSe₂ single crystals, J.Appl.Phys. 1996,v.79, N9, pp.6961-6168.
140. K.Frimelt, O.Kulikova, L.Kulyuk, A.Siminel, **E.Arushanov**, Ch.Kloc, and E.Bucher,Optical and photoelectrical properties of ReS₂ single crystals J.Appl.Phys. 1996, v.79, N12, pp.9268-9272.
141. **E.Arushanov**, M.Respaud, J.M.Broto, Ch.Kloc,J.Leotin, and E.Bucher, Magnetic properties of \square -FeSi₂ single crystals, Phys.Rev.B 1996, v.53, N9, pp.5108-5111.

142. J.H.Schütz, F.P.Baumgartner, **E.Arushanov**, H.Riazi-Nejad, Ch.Kloc, and E.Bucher, Electrical properties of doped CuGaSe₂ single crystals, Cryst.Res.Technol. 1996, v.31, pp.S155- S158.
143. K.Lisunov, **E.Arushanov**, Ch.Kloc, U.Malang, and E.Bucher, Hopping conductivity in p-type \square -FeSi₂ single crystals, Phys.Stat.Sol. (b) 1996,v.195, pp.227-236.
144. **E.Arushanov**, E.Bucher, Ch.Kloc, O.Kulikova, L.Kulyuk, and A.Siminel, Optical absorption and photoconductivity of ReS₂ crystals, Proc.Intern.Semicond.Conf.Sinaya,Romania, ICCE, 1995, pp.275-279.
145. **E.K.Arushanov**, E.Bucher, Ch.Kloc, O.Kulikova, L.Kulyuk, A.Siminel, Photoconductivity in n-type \square -FeSi₂ single crystals, Phys.Rev.B 1995, v.52, pp. 20-23.
146. Ch.Kloc, **E.K.Arushanov**, M.Wendl, H.Hohl, U.Malang, E.Bucher, Preparation and properties of FeSi, \square -FeSi₂ and \square -FeSi₂ single crystals, J.of Alloys and Compounds 1995, v.219, pp.93-96.
147. **E.K.Arushanov**, Ch.Kloc, E.Bucher, Electronic properties of \square -FeSi₂ single crystals, Proc. Int. Conf.Phys.Semicond.,Vancouver,1994 (World Scientific Publishing Co.Pte.Ltd 1995), pp.129-132.
148. M.von Ortenberg, I.Laue, G.Machel, O.Portugall, A.N.Nateprov, **E.K.Arushanov**, Order and disorder in the layered magnetic semiconductor ZnMn₂As₂, Proc. Int. Conf. Phys. Semicond., Vancouver, 1994 (World Scientific Publishing Co.Pte.Ltd 1995), pp.2581-2584.
149. **E.K.Arushanov**, E.Bucher, Ch.Kloc, O.Kulikova, L.Kulyuk, A.Seminel, The Hall effect and photoconductivity in \square -FeSi₂ single crystals, Proc.17-th Annual Semiconductor Conference (CAS 94), Sinaia, Romania 1994, pp.148-151.
150. **E.K.Arushanov**, Ch.Kloc, E.Bucher, Growth and characterisation of \square -FeSi₂ single crystals, Proc.2nd Symposium on Thermoelectrics, Dresden, 1994 (FAT Halle/Saale 1994), pp.198-201.
151. I.Laue, J.Vanacken, A.N.Nateprov, F.Herlach, M.von Ortenberg, **E.Arushanov**, Spinglass behavior in semiconducting single crystalline ZnMn₂As₂, Phys.Stat.Sol.(b) 1994, v.185, N1, pp.245-255.
152. **E.K.Arushanov**, Ch.Kloc, E.Bucher, Impurity band in p-type \square -FeSi₂, Phys.Rev.B 1994, v.50, N4, pp.2653-2656.
153. **E.K.Arushanov**, Ch.Kloc, E.Bucher, The Hall effect in \square -FeSi₂ single crystals, J.Appl.Phys.1994,v.75, N10, pp.5106-5109.
154. **E.K.Arushanov**, L.Essaleh, J.Galiber, J.Leotin, S.Askenazy, Shubnikov-de Haas oscillation in n-CuInSe₂, Physica B 1993,v.184, pp.229-231.
155. I.Laue, M.von Ortenberg, A.N.Nateprov, **E.K.Arushanov**, Shubnikov -de Haas oscillations in Cd₃As_{2-x}P_x, Semicond.Sci. and Technol.1993,v.8, N1S, pp.S180-S182.

156. L.Laue, M.von Ortenberg, A.N.Nateprov, **E.K.Arushanov**, Far magnetooptical investigation on ZnMn₂As₂, Proc.Int.Conf.IR and MM waves, SPIE 1929, pp.302-303 (1992).
157. **E.K.Arushanov**, II₃V₂ compounds and alloys, (review), Prog.Cryst.Growth Charact.1992, v.25, pp.131-201.(Pergamon Press)
158. **E.K.Arushanov**, L.Essaleh, J.Galiber, J.Leotin, M.A.Arsene, J.P.Peyrade, S.Askenazy, Shubnikov-de Haas oscillations in n-CuInSe₂,Appl.Phys.Lett. 1992, v.61, N8, pp.958-960.
159. **E.K.Arushanov**, D.V.Mashovets, Yu.V.Roznovan, D.V.Smirnov, M.I.Shubnikov, Shubnikov-de Haas oscillations in p-ZnSb,Fiz.Tekh.Poluprovodn.1992, v.26, N2, pp.395-397.
160. J.L.Martin, M.Goiran, **E.K.Arushanov**, J.Leotin, S.Askenazy, Far infrared magnetotransmission and hole cyclotron resonance at high magnetic fields in p-ZnSb,Physica B 1992, v.177, pp.484-488.
161. V.A.Kulbachinskii, L.V.Svistunov, S.M.Chudinov, V.D.Kuznetsov, **E.K.Arushanov**, V.S.Zahvalinski, A.N.Nateprov, Magnetic and galvanomagnetic anomaly in (Zn_{1-x}Mnx)3As₂ magnetic deluted solutions, Fiz.Tekh.Poluprovodn.1991,v.25, N12, pp.2201-2214.
162. **E.K.Arushanov**, A.A.Dvorkin, V.S.Zahvalinski, A.N.Nateprov, V.Stamov, ZnMn₂As₂ new magnetic semiconductor,Proc.Int.Conf.Ternary Multinary Compounds, Shtiintsa, Kishinev, 1991, p.99.
163. **E.K.Arushanov**, K.G.Lisunov, Yu.V.Rosnovan, M.L.Shubnikov, Electrical properties of Sm and Eu doped cadmium antimonide at low teperature,Fiz.Tekh.Poluprovodn. 1990, v.24, N7, pp.1179-1181.
164. **E.K.Arushanov**, L.L.Kulyuk, A.N.Nateprov, S.I.Radautsan, T.D.Shemyakova, A.A.Shtanov, Stationary and resolved in time photoluminescence of cadmium phosphide single crystals, Fiz. Tekh.Poluprovodn.1989, v.23, N1, pp.58-62.
165. **E.K.Arushanov**, A.N.Nateprov, J.Cisowski, V.V.Platonov, Influence of pressure on electrical properties of Cd₃As_{2-x}P_x solid solutions,Izv.Akad.Nauk Moldav.SSR 1989, N3, pp.63-64.
166. A.V.Lashkul, J.Cisowski, **E.K.Arushanov**, A.F.Knyazev, Influence of pressure on electron concentration and mobility in Cd_{3-x}Zn_xAs₂ solid solution, Fiz.Tekh.Poluprovodn. 1989, v.23, N8, pp.1406-1409.
167. **E.K.Arushanov**, A.V.Lashkul, K.G.Lisunov, L.N.Lukyanova, Preparation and electrophysical properties of cadmium arsenide-cadmium phosphide solid solution,pp.120-122.In:Progress in preparation and application of phosphides and phosphoruscontaining alloys, Nauka, Alma-Ata, 1988, part 2.
168. **E.K.Arushanov**, A.V.Lashkul, D.V.Mashovets, V.I.Pruglo, S.I.Radautsan, Magnetophonon oscillations in cadmium antimonide, Izv.Akad.Nauk Moldav. SSR 1988, N2, pp.57-58.

169. V.E.Tezlevan, V.V.Thurkan, K.G.Nikiforov, **E.K.Arushanov** et al, Complex semiconducting materials,(monograph),Shtiintsa,Kishinev,1988.(230 pages).
170. **E.K.Arushanov**, A.A.Gubanova, A.F.Knyazev, A.V.Lashkul, K.G.Lisunov, V.V.Sologub, Cyclotron masses and g-factors of electrons in Cd_{3-x}Zn_xAs₂ solid solutions, Fiz.Tekh. Poluprovodn.1988,v.22, N2, pp.338-340.
171. **E.K.Arushanov**, K.G.Lisunov, L.N.Lukyanova, A.N.Nateprov, S.I.Radautsan, Electron mobility in Cd₃As_{2-x}P_x solid solutions,Izv.Akad.Nauk Moldav.SSR 1987, N3, pp.55-57.
172. **E.K.Arushanov**, A.V.Lashkul, K.G.Lisunov, R.V.Parfenev, S.I.Radautsan, Anisotropy of negative magnetoresistance in p-CdSb, Fiz.Tverd.Tela 1987, v.29, N8, pp.2516-2518.
173. **E.K.Arushanov**, Crystal growth,characterization and application of II V compounds, (review), Prog.Crystal Growth Charact. 1986, v.13, N1, pp.1-38.(Pergamon Press).
174. O.A.Aktsipetrov, **E.K.Arushanov**, I.M.Baranova, L.L.Kulyuk, A.V.Petukhov, A.A.Shtanov, D.A.Shutov, Nonlinear electroreflection in cadmium phosphide, Fiz.Tverd.Tela 1986, v.28, N10, pp.3228-3230.
175. .**E.K.Arushanov**, A.V.Lashkul, K.G.Lisunov, R.V.Parfenev, S.I.Radautsan, Analisis of negative magnetoresistance of cadmium antimonide in the framework of quantum correction theory, Fiz.Tverd.Tela 1986,v.28, N8, pp.2386-2390.
176. M.Goiran, A.Zuik, P.Karls, **E.K.Arushanov**, J.Leotin, M. von Ortenberg, Cadmium antimonide lattice excitations, Phys.Stat.Sol.1986, v.133, N1, pp.K1-K4.
177. S.I.Radautsan, V.I.Morozova, A.F.Knyazev, L.S.Koval, **E.K.Arushanov**, A.N.Nateprov, Photoconductivity spectra of cadmium phosphide single crystals,Fiz.Tekh.Poluprovodn. 1985, v.19, N6, pp.1127-1128.
178. **E.K.Arushanov**, A.N.Nateprov, A.F.Knyazev, V.V.Moshchalkov, Shubnikov-de Haas effect in Cd_{3-x}Zn_xAs₂ solid solutions,pp.10-15.In:Multinary semiconducting materials (Edited by S.I.Radautsan) Shtiintsa, Kishinev,1985.
179. J.Leotin, M.Goiran, S.Askenazy, M.von Ortenberg, M.Singh, P.R.Wallace, **E.K.Arushanov**, The valence band parameters of cadmium antimonide determined by cyclotron resonancemeasurements, Proc. Int. Conf. Phys. Semicond., SanFrancisco,1984, Springer-Verlag, New York, 1985, pp.1021-1024.
180. **E.K.Arushanov**, L.L.Kulyuk, L.N.Lukyanova, A.N.Nateprov, S.I.Radautsan, A.A.Shtanov, Stimulated emission spectra and valence band structure in the Cd₃(As_xP_{1-x})₂ system, Phys. Stat.Sol.(b) 1985, v.128, N2, pp.583-589.
181. J.Cisowski, J.C.Portal, J.M.Broto, **E.K.Arushanov**, K.Kloc, A.Burian, The conduction band of Cd₃P₂ from the Shubnikov-de Haas effect,Acta Phys.Polonica,1985, v.A67, N2, pp.475-478.
182. J.Cisowski, J.C.Portal, **E.K.Arushanov**, J.M.Broto, S.Huant, L.S.Brunel, Shubnikov de Haas effect and cyclotron resonance in p-CdSb, Phys.Stat.Sol.(b) 1984, v.121, N1, pp.289-292.

183. M.Singh, P.R.Wallace, S.D.Jog, **E.K.Arushanov**, Magnetic band structure in the valence band of CdSb, J.Phys.Chem.Sol.1984, v.45, N4, pp.409-418.
184. S.I.Radautsan, **E.K.Arushanov**, A.F.Knyazev, M.M.Markus, A.N.Nateprov, Crystal growth and characterization of Cd_{3-x}ZnxAs₂ solid solutions ,pp.143-146. In:Semimetal and narrow-gap semiconductors under external influence (Edited by S.I.Radautsan), Shtiintsa, Kishinev, 1983.
185. S.I.Radautsan, **E.K.Arushanov**, A.F.Knyazev, A.N.Nateprov, Transport phenomena in Cd_{3-x}ZnxAs₂ solid solutions, pp139-143.In: Semimetal and narrow-gap semiconductors under external influence (Edited by S.I.Radautsan), Shtiintsa, Kishinev,1983.
186. S.I.Radautsan, **E.K.Arushanov**, N.M.Belyi, A.A.Gubanova, V.I.Pruglo, Raman spectra and simmetry of vibrational modes in CdSb crystals, Dokl. Akad. Nauk SSR,1983, v.272, N5, pp.1125-1128.
187. A.M.Andriesh, **E.K.Arushanov**, I.P.Molodyan et al, Study of binary semiconducting compaunds,(monograph), Shtiintsa,Kishinev,1983.(140 pages).
188. D.Houde, S.Jndl, C.Carlone, **E.K.Arushanov**, Raman spectra of CdSb,J. Raman Spectroscopy, 1983, v.14, N6, pp.434-436.
189. S.I.Radautsan, **E.K.Arushanov**, L.N.Lukyanova, M.M.Markus, A.N.Nateprov, Crystal growth and characterization of Cd₃(As_xP_{1-x})₂ solisolutions,Izv.Akad.Nauk Moldav. SSR, 1983, N2, pp.50-53.
190. **E.K.Arushanov**, A.F.Knyazev, A.N.Nateprov, S.I.Radautsan, Composition dependence of the energy gap in Cd_{3-x}ZnxAs₂ ,Fiz.Tekh.Poluprovodn, 1983, v.17, N7, pp.1202-1204.
191. J.-P.Jay-Gerin, **E.K.Arushanov**, M.Aubin, Simple method for analising interband magneto-optical data of Kane type semiconductors:application to Cd₃As₂,Sol. St.Commun.1983, v.46, N7, pp.537-540.
192. **E.K.Arushanov**, A.F.Knyazev, A.N.Nateprov, K.G.Lisunov, S.I.Radautsan, Electron mobility in n-Cd_{3-x}ZnxAs₂, Fiz.Tekh.Poluprovodn.1983, v.17, N5, pp.885-888.
193. **E.K.Arushanov**, A.V.Lashkul, D.V.Mashovets, V.I.Pruglo, S.I.Radautsan, V.V.Sologub, Oscillational phenomena in cadmium antimonide,Proc. AII-Union Conf. Phys.Semicond., Elm, Baku,1982, pp.96-98.
194. **E.K.Arushanov**, A.V.Lashkul, L.N.Lukyanova, A.N.Nateprov, S.I.Radautsan, V.V.Sologub, Shubnikov-de Haas oscillations in Cd₃(As0.7P0.3)₂, Fiz.Tekh. Poluprovodn.1982, v.16, N10, pp.1888-1890.
195. **E.K.Arushanov**, A.V.Lashkul, V.I.Pruglo, S.I.Radautsan, V.V.Sologub, Shubnikovde Haas oscillations in n-CdSb, Dokl. Akad. Nauk SSSR, 1982, v.263, N5, pp.1112-1114.
196. **E.K.Arushanov**, A.V.Lashkul, V.I.Pruglo, S.I.Radautsan, V.V.Sologub, Shubnikovde Haas oscillations in p-CdSb, Dokl. Akad. Nauk SSSR, 1982, v.263, N1, pp.71-73.

197. **E.K.Arushanov**, L.L.Kulyuk, L.N.Lukyanova, A.N.Nateprov, S.I.Radautsan, A.A.Shtanov, Laser emission in Cd₃(As_xP_{1-x})₂ solid solutions, *Kvant.electronica*, 1982, v.9, N9, pp.1926-1928.
198. S.Jandl, J.Lefaire, O.Houde, **E.K.Arushanov**, Infrared spectra of CdSb, Solid St.Commun. 1982, v.41, N4, pp.325-327.
199. **E.K.Arushanov**, L.L.Kulyuk, A.N.Nateprov, S.I.Radautsan, A.A.Shtanov, Study of induced radiation in cadmium phosphide, *Fiz. Tekh. Poluprovodn.* 1981, v.15, N3, pp.585-588.
200. **E.K.Arushanov**, A.F.Knyazev, A.N.Nateprov, S.I.Radautsan, Band parameters of cadmium arsenide, *Fiz. Tekh. Poluprovodn.* 1981, v.15, N9, pp.1839-1841.
201. **E.K.Arushanov**, A.F.Knyazev, A.N.Nateprov, S.I.Radautsan, Transport phenomena in cadmium arsenide doped with group I and IV elements, *Fiz.Tekh.Poluprovodn.* 1981, v.15, N7, pp.1433-1436.
202. M.Aubin, A.Rambo, **E.K.Arushanov**, Magneto-optical oscillations in Cd₃As₂, *Phys. Rev.B* 1981, v.23, N8, pp.3602-3607.
203. **E.K.Arushanov**, L.L.Kulyuk, A.N.Nateprov, S.I.Radautsan, A.A.Shtanov, Spontaneous and stimulated emission in Cd₃P₂, Proc.Int.Symposium Phys.Chem. II-V Compounds, Mogelany, 1980 (Eindhoven Univ. of Technol., Eindhoven, Netherland, 1980), pp.179-182.
204. **E.K.Arushanov**, A.V.Lashkul, D.V.Mashovets, A.N.Nateprov, S.I.Radautsan, V.V.Sologub, Shubnikov-de Haas effect in Cd₃P₂, Proc. Int. Symposium Phys.Chem. II-V compounds, Mogelany, 1980 (Eindhoven Univ. of Technol., Eindhoven, Netherland, 1980), pp.153-156.
205. **E.K.Arushanov**, Transport phenomena in Cd₃P₂, Proc.Int.Symposium Phys.Chem. II-V compounds, Mogelany, 1980 (Eindhoven Univ. of Technol., Eindhoven, Netherland, 1980), pp.147-152.
206. **E.K.Arushanov**, Crystal growth and characterization of II₃V₂ compounds, (review), *Prog.Cryst.Growth Charact.* 1980, v.3, N2/3, pp.211-255. (Pergamon Press).
207. M.Aubin, A.Rambo, **E.K.Arushanov**, Magneto-optical oscillations in Cd₃As₂, Proc.Int. Conf. Phys. Semicond., Kyoto, 1980 (*J. Phys. Soc. Japan* 1980, A49, Suppl.) pp.787-790.
208. **E.K.Arushanov**, A.V.Lashkul, D.V.Mashovets, A.N.Nateprov, S.I.Radautsan, V.V.Sologub, Shubnikov-de Haas oscillations in cadmium phosphide, *Phys.Stat.Sol. (b)* 1980, v.102, N2, pp.K121-K124.
209. **E.K.Arushanov**, A.V.Lashkul, A.N.Nateprov, Cadmium phosphide doped by copper, pp.162-168. In: Semimetal and narrow-gap semiconductors (Edited by S.D.Shutov) Shtiintsa, Kishinev, 1979.
210. S.I.Radautsan, **E.K.Arushanov**, A.V.Lashkul, A.N.Nateprov, Electron mobility in cadmium phosphide, *Fiz. Tekh. Poluprovodn.* 1978, v.12, N9, pp.1864-1868.

211. J.Cisowski, **E.K.Arushanov**, J.Bodnar, K.Kloc, W.Zdanowicz, Band structure of Cd₃As₂ from pressure investigations of galvano- and thermomagnetic effects. Proc.Int.Conf.Phys. Semicond.Edinburgh, 1978 (Institute of Physics, Bristol/London,1979), pp.253-256.
212. **E.K.Arushanov**, S.I.Radautsan, V.I.Pruglo, Sensitivity and detectivity of the heat flow detectors on the base of CdSb, pp.168-172. In: Semimetal and narrow-gap semiconductors (Edited by S.D.Shutov), Shtiintsa, Kishinev, 1979.
213. S.I.Radautsan, **E.K.Arushanov**, L.N.Lukyanova, A.N.Nateprov, The thermoelectric power of Cd₃(As_xP_{1-x})₂, Phys.Stat.Sol.1977, v.43, N1, pp.K159-K163.
214. S.I.Radautsan, M.A.Bunin, A.N.Gusatinski, M.A.Blohin, **E.K.Arushanov**, A.N.Nateprov, X-ray spectral study of the electronic structure of Cd₃P₂, Dokl.Akad.Nauk SSSR, 1977, v.234,N3, pp.575-577.
215. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, G.P.Chuiko, Cadmium arsenide and cadmium phosphide, (**monograph**), Shtiintsa, Kishinev, 1976.(160 pages).
216. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, L.N.Lukyanova, The conduction band of cadmium phosphide, Phys. Stat. Sol.(a) 1976, 35, N1, pp.K53-K56.
217. **E.K.Arushanov**, V.A.Korotkov, M.M.Markus, G.P.Chuiko, Preparation and electrical properties of cadmium arsenide-zincum arsenide heterojunction, pp.27-29 In: Semiconducting materials and their application (Edited by S.I.Radautsan) Shtiintsa, Kishinev,1976
218. **E.K.Arushanov**, V.I.Pruglo, Study of Nernst-Ettingshausen effect in cadmium antimonide single crystals, pp22-26 In: Semiconducting materials and their application (Edited by S.I.Radautsan), Shtiintsa, Kishinev,1976.
219. **E.K.Arushanov**, G.P.Chuiko, Calculation of parameters of Cd₃As₂ in approaching of the three-band Kane model, Izv.Akad. Nauk Moldav.SSR,1976, N3, pp27-29.
220. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, G.P.Chuiko, Electron scattering in cadmium phosphide and cadmium arsenide,Proc.All-Union Conf.Chem Bonds in Crystals and their Physical Properties, Minsk, 1976, Nauka i Tekhnika, pp.215-220.
221. S.I.Radautsan, **E.K.Arushanov**, L.N.Lukyanova, M.M.Markus, A.N.Nateprov, D.P.Samus, G.P.Chuiko, Preparation, morphology and electrical properties of cadmium phosphide and cadmium arsenide needle-like crystals, Proc.All-Union Conf.Needle-like Crystals Thin Films, part I, Voronezh, 1975.
222. S.I.Radautsan, **E.K.Arushanov**, G.P.Chuiko, Nernst-Ettinghausen detectors on the base of Cd₃As₂, Proc.All-Union Symposium Narrow-Gap Semicond. Semimetal, Lvov,1975, pp.18-21.
223. S.I.Radautsan, **E.K.Arushanov**, G.P.Chuiko, Cd₃As₂ as a material for the heat flow detectors, Dokl.Akad Nauk SSSR,1975, v.224, N3, pp.566-568.
224. S.I.Radautsan, **E.K.Arushanov**, G.P.Chuiko, Shubnikov-de Haas oscillations in cadmium arsenide, Dokl. Akad Nauk SSSR,1975, v.222, N5, pp.1077-1078.

225. S.I.Radautsan, Yu.I.Maksimov, L.Ts.Tsifudin, **E.K.Arushanov**, A.N.Nateprov, L.N.Lukyanova, Peculiarities in morphology of growing and properties of cadmium phosphide and gallium phosphide needle-like crystals, Bulg. J. Phys.1975, v.2, N2, pp144-149.
226. **E.K.Arushanov**, L.N.Lukyanova, M.M.Markus, A.N.Nateprov, G.P.Chiiko, Preparation and properties of cadmium phosphide and cadmium arsenide single crystals, pp.18-38 In: Physics and chemistry of semiconductors (Edited S.I.Radautsan), Shtiintsa, Kishinev, 1975.
227. **E.K.Arushanov**, V.A.Korotkov, M.M.Markus, G.P.Chiiko, Heterojunction cadmium arsenide-zincum arsenide, In: Physical properties in heterojunction, Shtiintsa, Kishinev,1974.
228. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, D.A.Oleinik, The thermoelectric power of cadmium phosphide, Phys.Stat.Sol.(a) 1974, v.25, N1, pp. K57-K60.
229. **E.K.Arushanov**, A.N.Nateprov, G.P.Chiiko, Determination of the parameters of the Kane-type highdegenerated semiconductors,Fiz.Tekh.Poluprovodn.,1974,v.8, N11, pp.2275-2276.
230. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, Non-parabolicity of the conduction band of cadmium phosphide,Phys.Stat.Sol.(a) 1974, v.23, N1, pp.K59-K61.
231. S.I.Radautsan, **E.K.Arushanov**, L.N.Lukyanova, M.M.Markus, A.N.Nateprov, G.P.Chiiko, Growth of cadmium phosphide and cadmium arsenide single crystals from vapour phase, Izv.Akad.Nauk Moldav. SSR,1974, N2, pp.57-59.
232. S.I.Radautsan, **E.K.Arushanov**, G.P.Chiiko, The conduction band of cadmium arsenide, Phys.Stat.Sol.(a) 1973, v.20, N1, pp.221-226.
233. **E.K.Arushanov**, G.P.Chiiko, The magnetic field dependence of the kinetic coefficients of cadmium arsenide single crystals, Phys.Stat.Sol.(a) 1973, v.17, N1, pp.K135-K138.
234. S.I.Radautsan, **E.K.Arushanov**, A.N.Nateprov, L.S.Marushyak, The density of states effective electron mass in cadmium phosphide,Phys.Stat.Sol.(a) 1973, v.19, N1, pp.K71-K73.
235. **E.K.Arushanov**, L.S.Koval, S.I.Radautsan, Temperature dependence of the Hall coefficient and thermoelectric power in CdIn₂Se₄-CdIn₂Te₄ solid solutions,pp.217-220.In:II IV V2 and II III₂VI₄ ternary compounds (physico-chemical and physical properties) (Edited by S.I.Radautsan) Shtiintsa, Kishinev,1972.
236. S.I.Radautsan, **E.K.Arushanov**, L.S.Koval, Electrical properties of CdIn₂Se₄-CdIn₂Te₄ solid solutions, Izv. Akad. Nauk Moldav. SSR, 1972, N2, pp.55-59.
237. **E.K.Arushanov**, L.S.Koval, S.I.Radautsan, The effective electron mass in CdIn₂Se₄-CdIn₂Te₄,Phys. Stat.Sol.(a) 1972, v.9, N1, pp.K73-K75.
238. I.K.Andronik, **E.K.Arushanov**, O.V.Emelyanenko, Transverse Nernst-Ettingshausen effect in p-CdSb, Izv. Akad. Nauk Moldav. SSR, 1969, N2, pp.61-63.

239. I.K.Andronik, **E.K.Arushanov**, O.V.Emelyanenko, D.N.Nasledov, Negative magnetoresistance of p-CdSb, Phys.Stat Sol.1968, v.27, N1, pp.45-49.
240. I.K.Andronik, **E.K.Arushanov**, O.V.Emelyanenko, D.N.Nasledov, Electrical properties of doped CdSb crystals at low temperatures, Fiz.Tekh.Poluprovodn.1968, v.2, N9, pp.1248-1252.
241. I.K.Andronik, **E.K.Arushanov**, Electrical properties of CdSb doped by In and Cu, Fiz.Tekh.Poluprovodn. 1968, v.2, pp.869-872.