

## *Научни публикации и участия в научни форуми.*

(с подчертаване са отбелязани публикациите, приложени към автореферата)

### *I. Научни публикации в списания с импакт фактор.*

1. Petkov P., S. Parvanov, **Y. Nedeva**, E. Kashchieva, “Kinetics of evaporation and condensation of boron containing chalcogenide glasses”, *Phys. Chem. Glasses*, 41 (2000) 377.
2. **Nedeva Y.**, T. Petkova, E. Mytilineou, P. Petkov, “Compositional dependence of the optical properties of the Ge-Se-Ga glasses”, *J. Optoe. Adv. Mat.*, 3 (2001) 433.
3. Petkova T., **Y. Nedeva**, P. Petkov, “Compositional trends of the properties in chalcogenide Ge-Se-Ga glasses”, *J. Optoe. Adv. Mat.* 3 (2001) 855.
4. Popov C., P. Petkov, **Y. Nedeva**, P. Ilchev, W. Kulisch, “Stress investigations of thin amorphous Ge-Se-Ga films”, *Appl. Phys. A*, 77 (2003) 145.
5. Petkova T., P. Petkov, S. Vassilev, **Y. Nedeva**, “Structural investigations of ternary chalcogenide glasses”, *Surf. Interf. Anal.*, 36 (2004) 880.
6. Boycheva S., V. Vassilev, P. Petkov, **Y. Nedeva**, “Optical characteristics of thermally evaporated GeSe<sub>2</sub>-Sb<sub>2</sub>Se<sub>3</sub>-ZnSe amorphous thin films”, *Mater. Lett.*, 59 (2005) 1521.
7. Popov C., S. Boycheva, P. Petkov, **Y. Nedeva**, B. Monchev, S. Parvanov, “Stress formation in evaporated amorphous Ge-Se and Ge-Se-Ga (Tl, B) thin films”, *Thin Solid Films*, 496 (2006) 718.
8. Petkova T., C. Popov, P. Petkov, B. Monchev, **Y. Nedeva**, “Thin Chal-AgI films as gas sensor”, *J. Optoe. Adv. Mat.* 9 (2007) 3167.
9. Kolev K., T. Petkova, P. Petkov, **Y. Nedeva**, “DC conductivity measurements of (As<sub>2</sub>S<sub>3</sub>)<sub>1-x</sub>(AgI)<sub>x</sub> thin films”, *J. Optoe. Adv. Mat.* 11 (2009) 1244.
10. Petkov P., A. Stoilova, **Y. Nedeva** and E. Petkov, “Optical behaviors of thin indium-containing chalcogenide films”, *Surf. Interf. Anal.*, 42 (2010) 1235.
11. Ivanova V., **Y. Trifonova**, P. Petkov, T. Petkova, “The influence of In on photo-induced properties of Ge-Te-In chalcogenide thin films”, *J. Optoe. Adv. Mat. –R. Comm.*, 8 (1-2) (2014) 42.

12. Stoilova A., **Y. Trifonova**, Vl. Ivanova, P. Petkov, E. Lilov, “Se-based chalcogenide glasses as holographic media”, J. Optoelect. Adv. Mat. 17 (2015) in press.

## *II. Научни публикации в международни списания без импакт фактор.*

13. Stoilova A., P. Petkov, **Y. Nedeva**, B. Monchev, “Kinetics of Ge-Se-In film growth”, American institute of physics 978-0-7354-0740-4/09/S25.00 (2009) 398.
14. Stoilova A., **Y. Trifonova**, P. Petkov, “Physico-chemical behaviors in Ge-Se-In glassy chalcogenides”, Adv. in Nat. Sc.: Theory and Applications, 1 (1) (2012) 53.
15. Petrov M., C. Popov, **Y. Trifonova**, P. Petkov, “Structure investigation of Ge-Te-In thin layers”, Adv. in Nat. Sc.: Theory and Applications, 1 (2) (2012) 159.
16. Stoilova A., E. Petkov, **Y. Trifonova**, “Physico-chemical properties of Ge-Se-Tl chalcogenide glasses in relation to the mean coordination number”, Adv. in Nat. Sc.: Theory and Applications, 1 (2) (2012) 167.
17. Ivanova Vl., A. Zaidan, P. Ilchev, **Y. Trifonova**, P. Petkov, “Comparison in physico-chemical properties in In and Ga doped Ge-Te glassy chalcogenides”, Adv. in Nat. Sc.: Theory and Applications, 1 (3) (2012) 207.

## *III. Участия в научни форуми с публикувани доклади в пълен текст.*

18. **Nedeva Y.**, P. Petkov, E. Kashchieva, “Thin films in the Ge-Se-Ga system”, Proceedings of 13<sup>th</sup> conference on glass and ceramics, Varna, Publishing house “Science Invest”, Sofia, 1 (1999) 294.
19. Petkov P., C. Vodenicharov, **Y. Nedeva**, T. Petkova, “Photoinduced structural changes in thin chalcogenide amorphous films”, Book of papers of the 16<sup>th</sup> congress of chemists and technologists of Macedonia, Faculty of technology and metallurgy, Skopje, 1 (1999) 191.
20. Petkov P., C. Popov, T. Petkova, **Y. Nedeva**, “Stress investigations in amorphous Ge-Te-Ga thin films”, Proceedings of 6<sup>th</sup> international conference on coatings on glass and plastics, Dresden, Germany, (2006) 331.
21. Petkov P., T. Petkova, **Y. Nedeva**, “Space charge limited currents in thin gallium containing chalcogenide films”, Nanoscience and nanotechnology, 6 (2006) 117, eds. E. Balabanova, I. Dragieva, Heron Press, Sofia.

22. Petkov P., **Y. Nedeva**, E. Lilov, “Direct current conductivity in thin glassy  $(\text{GeSe}_4)_{1-x}\text{Ga}_x$  films”, Nanoscience and nanotechnology, 7 (2007) 93, eds. E. Balabanova, I. Dragieva, Heron Press, Sofia.
23. Stoilova A., **Y. Nedeva**, P. Petkov, S. Vasilev, “Compactness in relation to the mean coordination number in glassy system  $(\text{AsTe})_{1-x}\text{AgI}_x$ ”, Proceedings of international scientific conference “AMTECH'07”-Gabrovo, Technical university of Gabrovo, Association of mechanical and manufacturing engineering faculties, Gabrovo, 1 (2007) i-185.
24. Stoilova A., **Y. Nedeva**, P. Petkov, V. Ilcheva, “Influence of Ag on the some physico-chemical properties of the bulk  $(\text{AsTe})_{1-x}\text{Ag}_x$  glasses”, Proceedings of international scientific conference “UNITECH'08”-Gabrovo, III (2008) III-548.
25. Иванова Вл., **Й. Трифонова**, Й. Арнаутска, А. Стоилова, П. Петков, “Синтез и физико-химични свойства на обемни образци от системата Ge-Te-In”, Сборник доклади от националната конференция на МИИО АБ, София, (2011) 167.
26. Zaidan A., Vl. Ivanova, **Y. Trifonova**, P. Petkov, “Chalcogenide Ge-Te-In for photonics applications”, Prosiding seminar nasional fisika terapan III, Departemen Fisika, FST, Universitas Airlangga, Surabaya, (2012), C 1, ISBN: 978-979-17494-2-8.

#### IV.

27. **Недева Й.**, автореферат на дисертация „Аморфни тънки слоеве от системата Ge-Se-Ga – получаване, свойства и приложение”, ХТМУ – София, (2004).

#### V. *Участия в научни форуми с постери и доклади.*

1. Petkov P., S. Parvanov, **Y. Nedeva**, E. Kashchieva, “Kinetics of evaporation and condensation of boron containing chalcogenide glasses”, Third international conference on borate glasses, crystals and melts: structure and applications, Bistritsa Residence, 4-9 July 1999. (постер)

2. Nedeva Y., E. Mytilineou, M. Skaperda, T. Petkova, P. Petkov, "Optical properties of the glassy thin films from Ge-Se-Ga system", Second international symposium of trans black sea region on applied electromagnetism, Xanthi – Greece, 27-29 June 2000. (доклад)
3. Nedeva Y., T. Petkova, E. Mytilineou, P. Petkov, "Compositional dependence of the optical properties of the Ge-Se-Ga glasses", First international workshop on amorphous nanostructured chalcogenides – fundamentals and applications, Bucharest – Romania, 25-28 June 2001. (постер)
4. Petkova T., Y. Nedeva, P. Petkov, "Compositional trends of the properties in chalcogenide Ge-Se-Ga glasses", First international workshop on amorphous nanostructured chalcogenides – fundamentals and applications, Bucharest – Romania, 25-28 June 2001. (постер)
5. Petkov P., Y. Nedeva, T. Petkova, "Electrode-limited conductivity in thin glassy  $(\text{GeSe}_4)_x\text{Ga}_{1-x}$  films", Second Balkan conference on glass science and technology 14<sup>th</sup> conference on glass and ceramics, Varna – Bulgaria, 24-28 September 2002. (постер)
6. Parvanov S., P. Petkov, Y. Nedeva, "Bulk limited conductivity in thin glassy structure from the  $(\text{GeSe}_5)_xB_{1-x}$  systems", Second Balkan conference on glass science and technology 14<sup>th</sup> conference on glass and ceramics, Varna – Bulgaria, 24-28 September 2002. (постер)
7. Parvanov S., E. Mihajlov, Y. Nedeva, V. Tsanova, "Bulk limited conductivity in thin B-containing glassy films", University of chemical technology and metallurgy Jubilee scientific conference, Sofia-Bulgaria, 4-5 June 2003. (постер)
8. Petkova T., P. Petkov, S. Vassilev, Y. Nedeva, "Structural investigations of ternary chalcogenide glasses", 10<sup>th</sup> European conference on applications of surface and interface analysis, Berlin – Germany, 5-10 October 2003. (постер)
9. Petkov P., Y. Nedeva, T. Petkova, E. Lilov, "Electrode-limited conductivity in thin glassy  $(\text{GeSe}_4)_x\text{Ga}_{1-x}$  films", 13<sup>th</sup> international school on condensed matter physics, Varna – Bulgaria, 30 August-3 September 2004. (постер)
10. Ilchev P., P. Petkov, T. Petkova, Y. Nedeva, "Physico-chemical behaviours of Ge-Te-Ga glassy compounds", 13<sup>th</sup> international school on condensed matter physics, Varna – Bulgaria, 30 August-3 September 2004. (постер)

11. Monchev B., P. Petkov, **Y. Nedeva**, “Optical constants of thin quaternary Ge-S-AgI films”, 6<sup>th</sup> National workshop on nanoscience and nanotechnology, Sofia – Bulgaria, 24-27 November 2004. (постер)
12. **Nedeva Y.**, P. Petkov, D. Roussev, “Optical band gap fluctuation in GeSe<sub>2</sub>-Sb<sub>2</sub>Se<sub>3</sub>-ZnSe films”, Third Balkan conference on glass science and technology 15<sup>th</sup> conference on glass and ceramics, Varna – Bulgaria, 26-30 September 2005. (постер)
13. Hineva T., T. Petkova, **Y. Nedeva**, P. Petkov, “Glassforming in the As-Se-AgI system”, Third Balkan conference on glass science and technology 15<sup>th</sup> conference on glass and ceramics, Varna – Bulgaria, 26-30 September 2005. (постер)
14. Петков П., К. Попов, С. Бойчева, **Й. Недева**, Б. Мончев (Petkov P., C. Popov, S. Boycheva, **Y. Nedeva**, B. Monchev), “Изследвания на стреса в аморфни Ge-Se и Ge-Se-Ga(Tl) тънки слоеве” (Stress investigations in amorphous Ge-Se and Ge-Se-Ga(Tl) thin films”), Научна конференция с международно участие 60 години катедра “Неорганична химия”, ХТМУ-София – България, 11 ноември 2005. (постер)
15. Monchev B., **Y. Nedeva**, E. Lilov, P. Peeva, K. Klenovski, “Investigation of the morphology and topology of amorphous Ge-S-AgI layers”, III Научна постерна сесия за студенти, докторанти, млади преподаватели и учени, ХТМУ-София – България, 19 май 2006. (постер)
16. **Nedeva Y.**, E. Lilov, E. Petkov, C. Petkov, V. Ivanova, “Physico-chemical and mechanical behaviours of chalcogenide Ge-Se (Te)-Ga glasses”, 5<sup>th</sup> International conference of the chemical societies of the south-east European countries, Ohrid - Macedonia, 10-14 September 2006. (постер)
17. **Nedeva Y.**, D. Roussev, V. Vassilev, P. Georgiev, “Compositional trends of the physicochemical properties in chalcogenide As-Se-Sb glasses”, IV Научна постерна сесия за студенти, докторанти, млади преподаватели и учени, ХТМУ-София – България, 16 май 2007. (постер)
18. Monchev B., T. Petkova, P. Petkov, C. Popov, **Y. Nedeva**, “Functionalization of silicon cantilevers for sensor applications”, 15<sup>th</sup> International summer school on vacuum, electron and ion technologies, Sozopol – Bulgaria, 17-21 September 2007. (постер)

19. **Nedeva Y.**, P. Petkov, D. Roussev, A. Stoilova, "Influence of some metals on the physico-chemical properties of the As-Se-glassy matrix", International scientific conference 60<sup>th</sup> anniversary of the department of physical chemistry, UCTM-Sofia-Bulgaria, 23 November 2007 (Международна научна конференция 60 години катедра "Физикохимия", ХТМУ-София-България, 23 ноември 2007. (постер)
20. Petkov P., A. Stoilova, **Y. Nedeva**, T. Petkova, "Physico-chemical properties of Ge-Se-(B, Ga, In, Tl) glasses", XVI<sup>th</sup> International symposium on non-oxide and new optical glasses, the Corum, Montpellier – France, 20-25 April 2008. (постер)
21. Petkova T., C. Popov, P. Petkov, B. Monchev, **Y. Nedeva**, "Thin chal-AgI films as gas sensor", V Научна постерна сесия за студенти, докторанти и млади учени, ХТМУ-София – България, 22 май 2008. (постер)
22. Stoilova A., **Y. Nedeva**, P. Petkov, D. Belchev, "Physico-chemical features in glassy In containing chalcogenide system", V Научна постерна сесия за студенти, докторанти и млади учени, ХТМУ-София – България, 22 май 2008. (постер)
23. Stoilova A., P. Petkov, **Y. Nedeva**, E. Lilov, V. Vassilev, "Thin films in the Ge-Se-In system", VI Научна постерна сесия за студенти, докторанти и млади учени, ХТМУ-София – България, 21 май 2009. (постер)
24. Stoilova A., P. Petkov, **Y. Nedeva**, T. Petkova, "Kinetics of evaporation and condensation in Ge-Se-In films", Fourth international conference on amorphous and nanostructured chalcogenides, Constantza – Romania, 29 June-3 July 2009. (постер)
25. Petkov P., A. Stoilova, V. Bоеv, **Y. Nedeva**, "Optical behaviours of thin In containing chalcogenide films", 13<sup>th</sup> European conference on applications of surface and interface analysis, Antalya – Turkey, 18-23 October 2009. (постер)
26. **Trifonova Y.**, B. Monchev, P. Petkov, T. Petkova, I. Kanazirski, "Conductivity studies of Ge-S-AgI glasses", VII Научна постерна сесия за млади учени, ХТМУ-София – България, 19 май 2010. (постер)
27. **Trifonova Y.**, E. Lilov, VI. Ivanova, I. Hristova, "Direct current conductivity in thin glassy (GeSe<sub>5</sub>)<sub>1-x</sub>Ga<sub>x</sub> films", VII Научна постерна сесия за млади учени, ХТМУ-София – България, 19 май 2010. (постер)

28. Petkov E., **Y. Trifonova**, P. Petkov, “Influence of the third component on optical properties of GeSe thin films”, 16<sup>th</sup> International school on condensed matter physics, Varna – Bulgaria, 29 August-3 September 2010. (постер)
29. Petkov P., **Y. Trifonova**, A. Stoilova, V. Vasilev, Z. Tonev, “Kinetics of evaporation and condensation of Ge-Se chalcogenide glasses, containing metal from the III B group”, VIII Научна постерна сесия, ХТМУ-София – България, 18 май 2011. (постер)
30. **Trifonova Y.**, Vl. Ivanova, A. Stoilova, P. Petkov, “Comparative study on compactness of various chalcogenide glasses”, Seventh national conference on chemistry, Sofia – Bulgaria, 26-29 May 2011. (постер)
31. Stoilova A., **Y. Trifonova**, P. Petkov, “Physico-chemical behaviors in Ge-Se-In glassy chalcogenides”, International workshop on oxide and non-oxide materials for optoelectronics, Sofia – Bulgaria, 21-22 December 2011. (постер)
32. Petrov M., **Y. Trifonova**, C. Popov, P. Petkov, “Rapid thermal annealing of amorphous  $(\text{GeTe}_5)_{100-x}\text{In}_x$  thin films for gas sensors”, International workshop on oxide and non-oxide materials for optoelectronics, Sofia – Bulgaria, 21-22 December 2011. (постер)
33. Ivanova Vl., A. Zaidan, P. Ilchev, **Y. Trifonova**, P. Petkov, “Comparison in physico-chemical properties in In and Ga doped Ge-Te glassy chalcogenides”, International workshop on oxide and non-oxide materials for optoelectronics, Sofia – Bulgaria, 21-22 December 2011. (постер)
34. Dolashkov N., V. Ivanova, **Y. Trifonova**, A. Zaidan, P. Petkov, “Photo- and thermo-induced effects in Ge-Te-In thin films for optoelectronic applications”, IX Научна постерна сесия, ХТМУ-София – България, 18 май 2012. (постер)
35. Ivanova V., A. Zaidan, P. Ilchev, **Y. Trifonova**, P. Petkov, “Comparison in physico-chemical properties in In and Ga doped Ge-Te glassy chalcogenides”, 5th Szeged international workshop on advances in nanoscience SIWAN5, Szeged – Hungary, 24-27 October 2012. (постер)
36. Ivanova Vl., A. Zaidan, **Y. Trifonova**, P. Petkov, “Thermo-induced effects in ternary chalcogenide films”, Fourth national crystallographic symposium with international participation, Sofia – Bulgaria, 1-3 November 2012. (постер)
37. Илиевска И., “Термоиндуцирани явления в халкогенидни тънки слоеве”, II Национална студентска научна сесия по физика и инженерни технологии”, Пловдив – България, 16-18 ноември 2012. (постер)

38. Mitkova F., V. Ivanova, A. Zaidan, **Y. Trifonova**, P. Petkov, “Thermo-induced effects in ternary chalcogenide films”, X Юбилейна научна постерна сесия, ХТМУ-София – България, 17 май 2013. (постер)
39. Ivanova V., A. Zaidan, I. Ilievska, **Y. Trifonova**, V. Lilova, P. Ilchev, P. Petkov, “Comparasion in optical properties in In and Ga doped Ge-Te glassy chacogenides”, Anniversary scientific conference with international participation 60 years UCTM, Sofia – Bulgaria, 4-5 June 2013. (постер)
40. Ivanova Vl., A. Zaidan, **Y. Trifonova**, P. Petkov, “The influence of In on photo-induced properties of Ge-Te-In chalcogenide thin films”, 12<sup>th</sup> International conference on the structure of non crystalline materials, Riva del garda – Italy, 7-12 July 2013. (постер)
41. Petkova T., P. Ilchev, **Y. Trifonova**, P. Petkov, V. Ilcheva, “Chalcogenide glasses for optoelectronics”, 2<sup>nd</sup> International conference on oxide and non-oxide materials for optoelectronics, Borovetz – Bulgaria, 19-22 December 2013. (доклад)
42. Ivanova Vl., A. Stoilova, **Y. Trifonova**, P. Petkov, “Comparative analysis of some physico-chemical properties of the  $(\text{GeTe}_5)_{100-x}\text{In}_x$  and  $(\text{GeSe}_5)_{100-x}\text{In}_x$  glassy systems”, 2<sup>nd</sup> International conference on oxide and non-oxide materials for optoelectronics, Borovetz – Bulgaria, 19-22 December 2013. (презентация)
43. Миткова Ф., **Й. Трифонова**, В. Иванова, П. Петков, “Синтез и физикохимични свойства на дотирани с индий Ge-Te халкогенидни стъкла”, XI Научна постерна сесия за млади учени, докторанти и студенти, ХТМУ-София – България, 22 май 2014. (постер)
44. Ivanova Vl., A. Stoilova, **Y. Trifonova**, P. Petkov, “Comparative analysis of some physico-chemical properties of the glassy systems  $(\text{GeSe}_5)_{100-x}\text{In}_x$  and  $(\text{GeTe}_5)_{100-x}\text{In}_x$ ”, Fifth national crystallographic symposium with international participation, Sofia – Bulgaria, 25-27 September 2014. (постер)
45. Stoilova A., **Y. Trifonova**, Vl. Ivanova., “Compositional dependence of the optical properties of the  $\text{GeTe}_3\text{-In}$  glasses”, Fifth national crystallographic symposium with international participation, Sofia – Bulgaria, 25-27 September 2014. (постер)