

**List of publications
of Victor G. Ivanov
last updated 01 July 2017**

• **In refereed periodic journals**

1. **V.G.Ivanov**, V.G.Hadjiev and M.N.Iliev, "*Oxygen Rearrangement due to laser heating and room-temperature ageing in $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ ($R = \text{Nd}, \text{Y}$)*", Physica C **235-240** (1994) 1255-1256.
2. **V.G.Ivanov**, M.N.Iliev and V.G.Hadjiev, "*Laser Assisted Isotopic Substitution of Oxygen in $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$: A Raman Study*", Balkan Physics Letters, **2** (1), 473 (1994).
3. **V.G.Ivanov** and M.N.Iliev, "*Raman Spectroscopy Evidence for Structural Microphase Separation in $\text{NdBa}_{2-x}\text{Sr}_x\text{Cu}_3\text{O}_{7-\delta}$* ", Physica C **244**, 293 (1995).
4. **V.G.Ivanov**, M.N.Iliev and C.Thomsen, "*Micro-Raman Study of Isotope Substitution in $\text{YBa}_2\text{Cu}_3^{18}\text{O}_{6.2}$ during Local Laser Annealing*", Phys.Rev.B **52**, 13652 (1995).
5. M.N.Iliev, V.G.Hadjiev, and **V.G.Ivanov**, "*Raman Spectroscopy of Local Structure and Reordering Processes in $\text{YBa}_2\text{Cu}_3\text{O}_{7-d}$ - Type Compounds*", Journal of Raman Spectroscopy **27**, 333 (1996).
6. E. Faulques, **V.G.Ivanov**, "*Raman Lineshapes from Sputtered Thin Films of $\text{Y}(\text{Pr})\text{Ba}_2\text{Cu}_3\text{O}_{6+x}$: A Study of Fine Structures and Oxygen Ordering*", Phys.Rev. B **55**, 3974 (1997).
7. Виктор Иванов, Димитър Мърваков, "*Нискотемпературна динамика на анизотропен ферромагнетик*", Annuaire de l'Universite de Sofia **80**, 161 (1997).
8. M. N. Iliev, A.P. Litvinchuk, H.-G. Lee, C. L. Chen, L.M. Dezaneti, C. W. Chu, **V.G. Ivanov**, M.V. Abrashev, and V. N. Popov, "*Raman Spectroscopy of SrRuO_3 Near the Paramagnetic-to-Ferromagnetic Phase Transition*", Phys. Rev. B **59**, 364 (1999).
9. M.V. Abrashev, A.P. Litvinchuk, M.N. Iliev, R.L. Meng, V.N. Popov, **V.G. Ivanov**, R.A. Chakalov, and C. Thomsen, "*Comparative Study of Optical Phonons in the Rhombohedrally Distorted Perovskites LaAlO_3 and LaMnO_3* ", Phys. Rev. B **59** (6), 4146 (1999).
10. M. V. Abrashev, **V. G. Ivanov**, M. N. Iliev, R. A. Chakalov, R. I. Chakalova, and C. Thomsen, "*Raman Study of the Variations of the Jahn-Teller Distortions through the Metal-Insulator Transition in Magnetoresistive $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ Thin Films*", Phys. Stat. Sol. (b) **215** 631 – 636 (1999).
11. E. Faulques, **V. G. Ivanov**, C. Meziere, P. Batail, Phys. Rev. B **62** (14), R9291 (2000). "*Phonon-self-energy effects in k -(BEDT—TTF) $_2\text{Cu}[\text{N}(\text{CN})_2]\text{Br}$* ".
12. M. N. Iliev, A. P. Litvinchuk, M. V. Abrashev, **V. G. Ivanov**, H. G. Lee, W. H. McCarroll, M. Greenblatt, R. L. Meng, and C. W. Chu, "*Raman Monitoring of Dynamical Jahn-Teller Distortions in Rhombohedral Antiferromagnetic LaMnO_3 and Ferromagnetic Magnetoresistive $\text{La}_{0.93}\text{Mn}_{0.98}\text{O}_3$* ", Physica C **341-348**, 2257 - 2258 (2000).
13. G. V. Kamarchuk, A. V. Khotkevich, V. M. Bagatsky, **V. G. Ivanov**, P. Molinie, A. Leblanc, and E. Faulques, Phys. Rev. B **63** (7), 73107 (2001). "*Direct determination of Debye temperature and electron-phonon interaction in IT-VSe_2* ".

14. M. V. Abrashev, **V. G. Ivanov** and M. N. Iliev, *Balkan Physics Letters* **9**, 188 – 192 (2001). “*Investigations of the crystal distortions in perovskites using Raman spectroscopy*”.
15. Ragot, F.; **Ivanov, V.**; Wery, J.; Garcia, A.; Perry, D. L.; Ouvrard, G.; E. Faulques, *Synthetic Metals*, 2001, vol. 120, no. ER1-3, pp. 773-774. “*Spectroscopy of a Eu(III)-imidazolate complex*”.
16. E. Faulques, J. Wery, S. Lefrant, **V. G. Ivanov**, and G. Jonusauskas, “*Transient Photoluminescence in para-hexaphenyl layers*”, *Phys. Rev. B* **65**, 212202, 2002.
17. Ragot F., Belin S., **Ivanov V.G.**, Perry D.L., Ortega M., Ignatova T.V., Kolobov I.G., Masalitin E.A., Kamarchuk G.V., Yeremenko A.V., Wéry J., Molinié P., and Faulques E., Electronic and magnetic dynamic properties of imidazolate complexes, *Materials Science*, **20**, 3 (2002).
18. S. Laverdiere, S. Jandl, A.A. Mukhin, V. Yu. Ivanov, **V.G. Ivanov**, and M.N. Iliev, “*Spin-phonon coupling in orthorhombic RMnO₃ (R= Pr, Nd, Sm, Eu, Gd Tb, Dy, Ho, Y): A Raman Study*”, *Phys. Rev. B* **73**, 214301 (2006).
19. E. Faulques, **V. G. Ivanov**, G. Jonusauskas, H. Athalin, O. Pyshkin, J. Wery, F. Massuveau, and S Lefrant, “*Ultrafast photoluminescence spectroscopy of exciton-exciton annihilation in nanoscale ordered oligoaniline films*”, *Phys. Rev. B* **74**, 075202 (2006).
20. J. Laverdière, S. Jandl, A. A. Mukhin, V. Yu. Ivanov, **V. G. Ivanov**, and M. N. Iliev, “*Erratum: Spin-phonon coupling in orthorhombic RMnO₃ (R=Pr,Nd,Sm,Eu,Gd,Tb,Dy,Ho,Y): A Raman study* ” *Phys. Rev. B* **74**, 179902 (2006).
21. Georgi B. Hadjichristov, **V.G. Ivanov**, Eric Faulques, “*Reflectivity modifications of polymethylmethacrylate by silicon ion implantation*”, *Applied Surface Science* **254**, 4820-4827, (2008).
22. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques, “*Silicon ion implanted PMMA for soft electronics*”, *Organic Electronics* **9**, 1051 (2008),
23. G. B. Hadjichristov, Tz. E. Ivanov, V. K. Gueorguiev, Y. G. Marinov, I. Stefanov, **V. G. Ivanov**, E. Faulques, “*Silicon ion implanted PMMA field-effect structure with electronic memory*”, *J. Ovonic Res.* **5** (1) 9-13 (2009).
24. **V.G.Ivanov**, G.B. Hadjichristov, and E. Faulques, “*Characterization of chemical bonding in ion-implanted polymers by means of mid-infrared reflectivity*”, *Appl. Spec* **63** (9), 1022-1026 (2009).
25. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques:, “*The transconductance of nano-clustered subsurface layer in Si+-implanted PMMA*”, *J. Optoelectron. Adv. Mater.* **11**(9), 1206-1209 (2009).
26. G. B. Hadjichristov, I. L. Stefanov, B. I. Florian, G. D. Blaskova, **V. G. Ivanov**, Eric Faulques, “*Optical reflectivity study of silicon ion implanted poly(methyl methacrylate).*”, *Appl. Surf. Sci.* **256** (3), 779 (2009).
27. N.D.Todorov, M. N. Abrashev, **V.G. Ivanov**, and E. Vlahov, “*Optical phonons in NdBaCo₂O_{5+x}: lattice dynamic calculations.*”, CP1203, *7th International Conference of the Balkan Physical Union*, eds. A. Angelopoulos and T. Fildis, AIP Conference Series **1203**, 1003–1006 (2009).
28. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques, “*Electrical properties of PMMA ion-implanted with low-energy Si⁺ beam*”, *J. Phys. Conf. Ser.* **207** 012022 (2010).

29. **V. G. Ivanov**, M. V. Abrashev, M. N. Iliev, M. M. Gospodinov, J. Meen, and M. I. Aroyo, “Short-Range B-site Ordering in Inverse Spinel Ferrite $NiFe_2O_4$ ”, Phys. Rev. B **82**, 024104 (2010), available at arXiv:1005.2244v1 [cond-mat.mtrl-sci] (2010).
30. **V.G. Ivanov**, M.N. Iliev, Y.-H. A. Wang, and A. Gupta, “Ferromagnetic spinel $CuCr_2Se_4$ studied by Raman spectroscopy and lattice dynamics calculations”, Phys. Rev. B **81**, 224302 (2010). Available at: arXiv:1005.2245v1 [cond-mat.mtrl-sci] (2010).
31. N D Todorov, M V Abrashev, **V G Ivanov**, G V Avdeev, and S C Russev, “Synthesis and characterization of $RBaCo_2O_{5+x}$ ($R = La, Nd, Gd, Y$ and Ho)”, J.Phys. Conf. Ser. **253** 012071, (2010) 012071.
32. **V.G. Ivanov** and G.B. Hadjichristov, “Orientation of sp^2 carbon nanoclusters in ion-implanted polymethylmethacrylate as revealed by polarized Raman spectroscopy”, J. Raman Spec. **42**, 1340 (2011).
33. M. N. Iliev, **V. G. Ivanov**, N. D. Todorov, V. Marinova, M. V. Abrashev, R. Petrova, Y.-Q. Wang, and A. P. Litvinchuk, “Lattice dynamics of the α and β phases of $LiFe_5O_8$ ”, Phys. Rev. B **83**, 174111 (2011).
34. **V. G. Ivanov**, B. Aguilar Reyes, E. Fritsch, and E. Faulques, “Vibrational states in opals revisited”, Journal of Physical Chemistry C **115**, 11968 (2011).
35. N. D. Todorov, M. V. Abrashev, **V. G. Ivanov**, M. M. Gospodinov, Y.-Q. Wang, and G. G. Tsutsumanova, “Comparative Raman study of isostructural $YCrO_3$ and $YMnO_3$: Effects of the structural distortions and the twinning”, Phys. Rev. B **83**, 224303 (2011).
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37. N D Todorov, M V Abrashev and **V G Ivanov**, “Frequency dependence of the quasi-soft Raman-active modes in rotationally distorted $R^{3+}B^{3+}O_3$ perovskites (R^{3+} – rare earth, $B^{3+} = Al, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Ga$)”, J. Phys. Cond. Matt. **24**, 175404 (2012).
38. **V. G. Ivanov**, M. V. Abrashev, N. D. Todorov, V. Tomov, R. P. Nikolova, A. P. Litvinchuk, and M. N. Iliev, “Phonon and magnon Raman scattering in CuB_2O_4 ”, Phys. Rev. B **88**, 094301 (2013).
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40. J. H. Spencer, J. M. Nesbitt, H. Trehwhitt, R. J. Kashtiban, G. Bell, **V. G. Ivanov**, E. Faulques, J. Sloan, and D. C. Smith, “Raman Spectroscopy of Optical Transitions and Vibrational Energies of ~ 1 nm HgTe Extreme Nanowires within Single Walled Carbon Nanotubes”, ACS Nano **8**(9), 9044 (2014).
41. **V. G. Ivanov**, E. S. Vlahov, G. E. Stan, M. Zamfirescu, C. Albu, N. Mihailescu, I. Negut, C. Luculescu, M. Socol, C. Ristoscu, and I. N. Mihailescu, “Surface-enhanced Raman scattering activity of niobium surface after irradiation with femtosecond laser pulses”, J. Appl. Phys. **118**, 203104 (2015).
42. **V. G. Ivanov**, N. D. Todorov, L. S. Petrov, T. Ritacco, M. Giocondo, E. S. Vlahov, “Strong surface enhanced Raman scattering from gold nanoarrays obtained by direct laser writing”, Journal of Physics: Conference Series **764**, 012023 (2016).

- **Publications in books or conference proceedings**

1. M. Iliev, G. Bogachev, M. Abrashev, **V. G. Ivanov**, E. Liarokapis, and N. Poulakis, "Conductivity-Independent Fano Effect of the Ba (Ag) Phonon in $R_{0.5}Pr_{0.5}Ba_2Cu_3O_7$.", in "Anharmonic Properties of High-Tc Cuprates", World Scientific, Singapore, 1995, pp.271.
2. **V. G. Ivanov**, "Interference Effects in the Resonant Raman Scattering from the Apical-Oxygen Vibrations in the Ortho-II Phase of $YBa_2Cu_3O_x$ ", in "Spectroscopy of Superconducting Materials", editor Eric Faulques, American Chemical Society, Washington, DC 1999, pp 120.
3. **V.G. Ivanov**, "Scaled Quantummechanical Force Fields: A Promising Approach to the Molecular Vibrational Dynamics", in "Spectroscopy of Emerging Materials", eds. E. Faulques, D. Perry, A. Yeremenko, NATO Science Series, Vol. 165 (2004), pp. 339.
4. Ivan L. Stefanov, **V. G. Ivanov**, and Georgi B. Hadjichristov, "Laser-induced thermo-lens in ion-implanted optically-transparent polymer", in "Proc. of the International Conference on Ultrafast and Nonlinear Optics 2009", edited by Solomon Saltiel, Alexander Dreischuh, Ivan Christov, Proc. of SPIE Vol. 7501, 75010Q-1 (2009), doi: 10.1117/12.848572.

- **Participation in conferences, workshops and schools**

1. M. Iliev, G. Bogachev, M. Abrashev, **V. G. Ivanov**, E. Liarokapis, and N. Poulakis, постер: "Conductivity-Independent Fano Effect of the Ba (Ag) Phonon in $R_{0.5}Pr_{0.5}Ba_2Cu_3O_7$.", International Workshop on "Anharmonic Properties of High-Tc Cuprates", Sept. 1-6, 1994, Bled, Slovenia.
2. **V.G.Ivanov**, M.N.Iliev and V.G.Hadjiev, постер: "Laser Assisted Isotopic Substitution of Oxygen in $YBa_2Cu_3O_{6+x}$: A Raman Study", Second General Conference of the Balkan Physical Union, 12-14 September 1994, Izmir, Turkey. (1994)
3. **V. G. Ivanov**, E. Faulques, постер и устен доклад: "Nonadiabatic Interactions Between Ba and Plane Cu vibrations in $YBa_2Cu_3O_{6+x}$: A Raman Study", NATO Advanced Study Institute on "High-Tc Superconductivity 1996: Ten Years after the Discovery", Delphi, Greece, 19-31 August 1996.
4. **V. G. Ivanov**, постер: "Interference Effects in the Resonant Raman Scattering from the Apical-Oxygen Vibrations in the Ortho-II Phase of $YBa_2Cu_3O_x$ ", International conference of the American Chemical Society on "Applications of spectroscopy to superconducting materials", Dallas, April 1998
5. M. V. Abrashev, V. G. Ivanov, M. N. Iliev, R. A. Chakalov, R. I. Chakalova, and C. Thomsen "Raman Study of the Variations of the Jahn-Teller Distortions through the Metal-Insulator Transition in Magnetoresistive $La_{0.7}Ca_{0.3}MnO_3$ Thin Films", Proc. of the International Conference on Solid State Spectroscopy (ICSSS), Schwabisch Gmund, Germany, September 5-7, 1999.
6. F.Ragot, **V. G. Ivanov**, J.Wéry, A.Garcia, D.L.Perry, G. Ouvrard, and E.Faulques, постер: "Spectroscopy of a Eu(III)-imidazolate complex", International Conference of the Spectroscopy of Materials (ICSM2000), Orsay, France

7. M. V. Abrashev, **V. G. Ivanov** and M. N. Iliev, poster: “*Investigations of the crystal distortions in perovskites using Raman spectroscopy*” Proceedings of the 4th General Conference of the Balkan Physical Union, 25-30 August 2000, Veliko Turnovo, Bulgaria.
8. E. Faulques, **V. G. Ivanov**, J. Wery, G. Jounusauskas, poster: “*Picosecond Time-Resolved Photoluminescence of Parahexaphenyl Thin Films*”, 4-th International Conference "ELECTRONIC PROCESSES IN ORGANIC MATERIALS ", Lviv, Ukraine 3-8 June 2002.
9. F. Ragot, S. Belin, D. L. Perry, T. V. Ignatova, V. D. Fil, G. V. Kamarchuk, A. V. Yeremenko, P. Molinie, **V. G. Ivanov**, J. Wery, E. C. Faulques, poster: “*Dynamic Properties of Imidazole Complexes*”, "ELECTRONIC PROCESSES IN ORGANIC MATERIALS " in Lviv, Ukraine 3-8 June 2002.
10. **V.G. Ivanov**, invited speaker: “*Scaled Quantummechanical Force Fields: A Promising Approach to the Molecular Vibrational Dynamics*”, NATO ARW, 15–19 September 2003
11. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques: “*The transconductance of nano-clustered subsurface layer in Si⁺-implanted PMMA*”, 15th International School on Condensed Matter Physics: Interfaces, Thin Solid Films and Biomolecular Layers, ISCMP XV, Aug 31st – Sep 5th, 2008 Varna, Bulgaria, Poster Presentation.
12. G. B. Hadjichristov, Tz. E. Ivanov, V. K. Gueorguiev, Y. G. Marinov, I. Stefanov, **V. G. Ivanov**, E. Faulques:, “*Silicon ion implanted PMMA field-effect structure with electronic memory*”, 15th International School on Condensed Matter Physics: Interfaces, Thin Solid Films and Biomolecular Layers, ISCMP XV, Aug 31st – Sep 5th, 2008 Varna, Bulgaria, Poster Presentation.
13. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques: “*Electrical properties of PMMA ion-implanted with low-energy Si⁺ beam*”, Third International Workshop and Summer School on Plasma Physics, IWSSPP, June 30 - July 5, 2008, Kiten, Bulgaria Poster Presentation.
14. **V. G. Ivanov**
 “*Structural characterization of Si-ion implanted polymethylmetacrilate by means of Raman and mid-infrared spectroscopy*”, Invited talk, 1-st National Workshop on Advanced Materials, 27 – 29 September 2008, Gulechica, Rila, Bulgaria.
15. N.D.Todorov, M. N. Abrashev, **V.G. Ivanov**, and E. Vlahov, “*Optical phonons in NdBaCo₂O_{5+x}: lattice dynamic calculations.*”, 7-th General Conference of the Balcan Physical Union (BPU7), September 9th –13th, 2009, Alexandroupolis, Greece. Poster presentation.
16. G.B. Hadjichristov, V.K. Gueorguiev, Tz.E. Ivanov, Y.G. Marinov, **V.G. Ivanov**, E. Faulques, “*The transconductance of nano-clustered subsurface layer in Si⁺-implanted PMMA*”, 15th International School on Condensed Matter Physics: Interfaces, Thin Solid Films and Biomolecular Layers, ISCMP XV, Aug 31st – Sep 5th, 2008 Varna, Bulgaria, Poster Presentation.
17. I.L. Stefanov, **V.G. Ivanov**, G.B. Hadjichristov, “*Laser-induced thermo-lens in ion-implanted optically-transparent polymer*”, Conference on Ultrafast and Nonlinear Optics, UFNO’2009, Sep 14 – 18, 2009, Burgas, Bulgaria, Poster Presentation, SP-P3.
18. N D Todorov, M V Abrashev, **V G Ivanov**, G V Avdeev, and S C Russev, “*Synthesis and characterization of RBaCo₂O_{5+x} (R = La, Nd, Gd, Y and Ho)*”, ISCMP XVI, Aug 29st – Sep 3th, 2010 Varna, Bulgaria (poster presentation).
19. E. Faulques, E. Bichoutskaia, **V. G. Ivanov**, C. Ewels, H. Trehwitt, G. Bell, J. L. Duvail, and J. Sloan, "Raman Scattering of Encapsulating Carbon Nanotubes: From Experiments to Models," in *NanoTP : 3rd Annual Scientific Meeting*, Berlin, 2012 (oral and poster presentation).

20. Eric Faulques, Chris Ewels, Florian Massuyeau, Jeremy Rio, Neno Todorov, Jean-Luc Duvail, **Victor Ivanov**, Stéphane Cordier, Yann Molard, Karine Costuas, Jeremy Sloan, and Elena Bichoutskaia,, “Modeling the encapsulation of clusters and one-dimensional crystals in carbon nanotubes”, HeteroNanoCarb 2013, September 22 – 26, 2013. Castelldefels, Spain (poster presentation).
21. **V. G. Ivanov**, D. C. Smith, J. Sloan, and E. Faulques, “Crystallographic structure and vibrational modes of HgTe nanowires encapsulated in SWCNT”, invited speaker at V-th National Crystallographic Symposium NCS2014, 25–27 September 2014, Sofia.
22. **V. G. Ivanov**, D. C. Smith, J. Sloan and E. Faulques, “Crystallography and Raman-Spectroscopy Markers for 1-D Nanorods Encapsulated in Single-Wall Carbon Nanotubes”, invited speaker at INERA Conference 2015: Light in Nanoscience and Nanotechnology (LNN 2015), 20–25 October, Hissar, Bulgaria.
23. **V. G. Ivanov**, N. D. Todorov, L. S. Petrov, T. Ritacco, M. Giocondo, and E. S. Vlahov, “Strong surface enhanced Raman scattering from gold nanoarrays obtained by direct laser writing”, poster at INERA Conference 2016: Vapor Phase Technologies for Metal Oxide and Carbon Nanostructures, 5-9 July 2016, Velingrad, Bulgaria.
24. E. Faulques, N. Kalashnyk, **V.G. Ivanov**, J. Spencer, S. Jobic, R. Kashtiban, G.V. Kamarchuk, O. Pospelov, D.C. Smith, and J. Sloan, “Functional Nanowires”, Global Congress & Expo on Materials Science & Nanoscience, October 24-26, 2016 Dubai, UAE.