

LIST OF PUBLICATIONS:

(referred journals)

1. I.D.Feranchuk, A.A.Minkevich, A.P.Ulyanekov. *Estimation of the Debye temperature for crystals with polyatomic unit cell.* [Europ. Phys. Journ. Applied Physics, v.19, p.95-101 \(2002\).](#)
2. I.D.Feranchuk, A.A.Minkevich, A.P.Ulyanekov. *About non-Gaussian behaviour of the Debye-Waller factor at large scattering vectors.* [European Physical Journal, Applied Physics, v.24, p.21-26 \(2003\).](#)
3. I.D.Feranchuk, S.I.Feranchuk, A.A.Minkevich, A.P.Ulyanekov. *Description of x-ray reflection and diffraction from periodical multilayers and superlattices by the eigenwave method.* [Phys. Rev. B 68, 235307 \(2003\).](#)
4. A.A.Minkevich, I.D.Feranchuk. *Combinative rule for the force constants of the interatomic interactions and Debye temperature for crystals.* *Vestsi Nat. Akad. Navuk Belarusi. Ser. fiz.-mat. navuk*, 2004, N 2, p. 66-71.
5. A.A.Minkevich, I.D.Feranchuk. *Debye-Waller factor modification at large scattering angles.* [Vestsi Nat. Akad. Navuk Belarusi. Ser. fiz.-mat. navuk, 2004, N 3, p. 70-75.](#)
6. A.A.Minkevich, I.D.Feranchuk. *Diffraction of X-rays on superlattices.* *Vestsi Nat. Akad. Navuk Belarusi. Ser. fiz.-mat. navuk*, 2006, N 3, p. 79-83.
7. A.A.Minkevich, M.Gailhanou, J.-S.Micha, B.Charlet, V.Chamard, O.Thomas. *Inversion of the Diffraction Pattern from an Inhomogeneously Strained Crystal using an Iterative algorithm.* [Phys. Rev. B 76, 104106 \(2007\).](#)
8. M.Gailhanou, A.Loubens, J.-S.Micha, B.Charlet, A.A.Minkevich, R.Fortunier, O.Thomas. *Local strain field in SOI lines using high resolution x-ray diffraction.* [Appl. Phys. Lett. v.90, 111914 \(2007\).](#)
9. A.A.Minkevich, T.Baumbach, M.Gailhanou, O.Thomas. *Applicability of an iterative inversion algorithm to the diffraction patterns from inhomogeneously strained crystals.* [Phys. Rev. B 78, 174110 \(2008\).](#)
10. Pelliccia, A. Rack, S. Bauer, A. Cecilia, L. Helfen, L. Tao, P. Vagovic, F. Xu, L. ZhiJuan, A. Minkevich, I. Huber, E. Fohtung, T. Rolo, A. Ershov, T. Baumbach. *"X-ray Imaging at ANKA".* [ANKA Annual Report 2008, p. 27-33, CD-ROM \(2008\).](#)
11. M.Riotte, E.Fohtung, D.Grigoriev, A.A.Minkevich, T.Slobodskyy, M.Schmidbauer, T.H.Metzger, D.Z.Hu, D.M.Schaadt, T.Baumbach. *Lateral ordering, strain, and morphology evolution of InGaAs/GaAs(001) quantum dots due to high temperature postgrowth annealing.* [Applied Phys. Letts. 96, 083102 \(2010\).](#)
12. A.A.Minkevich, E.Fohtung, T.Slobodskyy, M.Riotte, D.Grigoriev, M.Schmidbauer, A.C.Irvine, V.Novak, V.Holy, T.Baumbach. *Selective coherent x-ray diffractive imaging of displacement fields in (Ga,Mn)As/GaAs periodical wires.* [Phys. Rev. B 84, 054113 \(2011\).](#)
13. A.A.Minkevich, E.Fohtung, T.Slobodskyy, M.Riotte, D.Grigoriev, T.Metzger, A.C.Irvine, V.Novak, V.Holy, T.Baumbach. *Strain field in (Ga,Mn)As/GaAs periodic wires revealed by coherent x-ray diffraction.* [Euro Phys. Letts. 94, 66001 \(2011\).](#)

14. P. Schroth, T. Slobodskyy, D. Grigoriev, A. A. Minkevich, M. Riotte, S. Lazarev, E. Fohtung, D. Z. Hu, D. M. Schaadt, and T. Baumbach. *Investigation of buried quantum dots using grazing incidence X-ray diffraction*. [Material Science and Engineering B 177, 721 \(2012\)](#).
15. M. Koehl, A. A. Minkevich, T. Baumbach. *Improved success rate and stability for phase retrieval by including randomized overrelaxation in the hybrid input output algorithm*. [Optics Express 20\(15\):17093-17106 \(2012\)](#).
16. P. Kurinskiy, A. Moeslang, V. Chakin, T. Slobodskyy, A.A. Minkevich, T. Baumbach, Ch. Dorn, A.A. Goraieb. *X-ray study of surface layers of air-annealed Be12Ti and Be12V samples using synchrotron radiation*. [Fusion Engineering and Design 87:872–875 \(2012\)](#).
17. T.Slobodskyy, P. Schroth, D. Grigoriev, A. A. Minkevich, D.Z. Hu, D.M. Schaadt, T. Baumbach. *A portable molecular beam epitaxy system for in situ x-ray investigations at synchrotron beamlines*. [Review of Scientific Instruments 83, 10 \(2012\)](#).
18. T.Slobodskyy, P. Schroth, A. A. Minkevich, D. Grigoriev, E. Fohtung, M. Riotte, T. Baumbach, M. Powalla, U. Lemmer, A. Slobodskyy. *Three-dimensional reciprocal space profile of an individual nanocrystallite inside a thin-film solar cell absorber layer*. [J. Phys. D: Appl. Phys. \(2013\)](#).
19. M. Koehl, P. Schroth, A. A. Minkevich, T. Baumbach. *Retrieving the displacement of strained nanoobjects: the impact of bounds for the scattering magnitude in direct space*. [Optics Express 21\(23\):27734-27749 \(2013\)](#).
20. A.A.Minkevich, M.Koehl, S. Escoubas, O.Thomas, T.Baumbach. *Retrieval of the atomic displacements in the crystal from the coherent X-ray diffraction pattern*. [J. Synchrotron Rad. 21, 774-783 \(2014\)](#).
21. M. Koehl, P. Schroth, A. A. Minkevich, J.-W. Hornung, E. Dimakis, C. Somaschini, L.Geelhaar, T. Aschenbrenner, S. Lazarev, D. Grigoriev, U. Pietsch, T. Baumbach. *Polytypism in GaAs nanowires: determination of the interplanar spacing of wurtzite GaAs by X-ray diffraction*. [J. Synchrotron Rad. 22, 67-75 \(2015\)](#).
22. A. I. Pateras, M. Allain, P. Godard, L. Largeau, G. Patriarche, A. Talneau, K. Pantzas, M. Burghammer, A. A. Minkevich, V. Chamard. *Nondestructive three-dimensional imaging of crystal strain and rotations in an extended bonded semiconductor heterostructure*. [Phys. Rev. B 92, 205305 \(2015\)](#).
23. D. Grigoriev, S. Lazarev, P. Schroth, A. A. Minkevich, M. Köhl, T. Slobodskyy, M. Helfrich, D. M. Schaadt, T. Aschenbrenner, D. Hommel and T. Baumbach. *Asymmetric skew X-ray diffraction at fixed incidence angle: application to semiconductor nano-objects*. [J. Appl. Cryst. 49, 961-967 \(2016\)](#).
24. S. Lazarev, P. Schroth, D. Grigoriev, M. Riotte, T.Slobodskyy, A. A. Minkevich, D.Z. Hu, D. Schaadt, T. Baumbach. *Role of the strained substrate in the x-ray diffraction of free-standing epitaxial nanostructures under grazing incidence conditions*. [Phys. Rev. B 99, 195432 \(2019\)](#).

(conference abstracts)

25. A.P.Ulyanenko, I.D.Feranchuk, A.A.Minkevich, H.Ress, J.Grenzer. *Diffuse X-ray scattering from GaAs/AlAs Superlattice: New approximation for data interpretation*. 50 Denver X-ray Conference, Collected Abstr., Denver, Co, USA (2001) p.304.
26. A.P.Ulyanenko, I.D.Feranchuk, A.A.Minkevich, H.Ress, J.Grenzer. *New approximation for interpretation of the diffuse scattering spectra*. 16th Int. Conference on X-ray optics, Collected Abstr. Vienna, Austria (2001) p.32.
27. A.Ulyanenko, I.Feranchuk, S.Feranchuk, A.Minkevich. *Fast simulation of X-ray reflectivity and diffraction from superlattices*. XTOP, Collected Abstracts, Prague (2004) p.16.
28. A.A.Minkevich. *Eigenwave method for x-ray reflection and diffraction from superlattices*. Int. Conference on Experimental and Computing Methods in HREDAMM, Book of Abstracts, Zakopane, Poland (2004) p.57. (oral presentation)
29. V.Chamard, S.Labat, A.Minkevich, O.Thomas, M.Dollé, G.Baldinozzi, F.Livet, M. de Boissieu, T.H.Metzger. *Local strain in nanocrystals revealed by coherent X-ray diffraction imaging*. 9SXNS, Collected Abstracts, Taipei, Taiwan (2006) p.20.
30. A.A.Minkevich, V.Chamard, M.Gailhanou, A.Loubens, O.Thomas. *Imaging of displacement field in highly strained objects using X-ray diffraction*. XTOP, Collected Abstracts, Baden-Baden (2006) p.26. (oral presentation)
31. A.A.Minkevich, M. Gailhanou, O.Thomas. *Applicability of an Iterative Inversion Algorithm to the Diffraction Patterns from Inhomogeneously Strained Crystals*. Coherence 2007 conference, Asilomar, Monterey, USA (2007). (oral presentation)
32. A.A. Minkevich, E. Fohtung, D. Grigoriev, T. Slobodskyy, M. Riotte, V. Holy, T. Baumbach. *Direct investigation of displacement field variation in small crystals using x-ray diffraction*. XTOP, Collected Abstracts, Linz, Austria (2008) p.120. (poster presentation)
33. A.A. Minkevich, E. Fohtung, M. Riotte, T. Slobodskyy, D. Grigoriev, T. Baumbach. *Direct reconstruction of strain field in crystal from its diffraction pattern*. 2nd School and Workshop on X-Ray Micro and Nanoprobes (XMNP 2009), Book of Abstracts, Palinuro, Italy (2009). p.35. (oral presentation)
34. A.A. Minkevich. *Coherent diffraction imaging. School of young specialists in synchrotron radiation*. Novosibirsk, Russia (2009). Invited lecture.
35. A.A. Minkevich, E. Fohtung, T. Slobodskyy, M. Riotte, D. Grigoriev, V. Holy, T. Baumbach. *Direct investigation of displacement field variation in (GaMn)As/GaAs periodic wires using X-ray diffraction*. ANKA - Annual Report 2009 p.115 Karlsruhe (2009)
36. A.A. Minkevich, E. Fohtung, T. Slobodskyy, M. Riotte, D. Grigoriev, V. Holy, T. Baumbach. *Displacement field in (GaMn)As/GaAs crystal wire revealed by coherent x-ray diffraction*. X-ray coherent diffraction (XCD2009) workshop, poster presentation, Soleil synchrotron, France (2009). (poster presentation)

37. A.A. Minkevich, E. Fohitung, T. Slobodskyy, M. Riotte, D. Grigoriev, V. Holy, T. Baumbach. *Displacement field in (GaMn)As/GaAs crystal wire revealed by the coherent x-ray diffraction*. SNI2010 conference, Berlin (2010). P.315 (poster presentation)
38. A.A. Minkevich, E. Fohitung, M. Riotte, D. Grigoriev, T. Slobodskyy, V. Holy, T. Baumbach. *Coherent x-ray diffractive imaging of strains in crystals*. *Coherence 2010 conference*. Rostock-Warnemuende, Germany (2010). P. 56. (poster presentation)
39. A.A. Minkevich, E. Fohitung, M. Riotte, D. Grigoriev, T. Slobodskyy, V. Holy, T. Baumbach. *Coherent x-ray diffraction as a tool for crystal strains evaluation*. XTOP, Collected Abstracts, Warwick, United Kingdom (2010) p.59. (poster presentation)
40. A. A. Minkevich, M. Riotte, S. Lazarev, E. Fohitung, D. Z. Hu, D. M. Schaadt, T. Baumbach. *High-resolution X-ray diffraction analysis of buried quantum dots*. DPG Spring Meeting 2012, Berlin (2012).
41. A.A.Minkevich, M.Koehl, P. Schroth, M. Riotte, D. Grigoriev, T.Slobodskyy, V. Holy, T. Baumbach. *Selective coherent X-ray diffractive imaging of strains in compound nanostructure systems*. *Coherence 2012 conference*. Fukuoka, Japan (2012) (oral presentation).
42. A. A. Minkevich, M. Köhl, P. Schroth, T. Baumbach. *Phase retrieval algorithm for coherent X-ray diffractive imaging of strained nanostructures*. XTOP, St. Petersburg, Russia (2012).