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SCIENTIFIC DEGREE:

July 2021 Ph. D.: Doctor of Philosophy
 Field of Study 10 "Natural Sciences"
 Subject Area 104 "Physics and astronomy"

Ph. D. thesis: "Features of elastic, magnetoelastic and piezoelectric properties of magnetoelectrics $TbFe_3(BO_3)_4$, $HoFe_3(BO_3)_4$ and $HoAl_3(BO_3)_4$ at low temperatures.", B.Verkin Institute for Low Temperature Physics and Engineering, Kharkiv, Ukraine

EXPIRIENCE:

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|----------------|---|
| 2024 – present | Research Scientist B.Verkin Institute for Low Temperature Physics and Engineering, Kharkiv, Ukraine |
| 2016 - 2024 | Junior Research Scientist B.Verkin Institute for Low Temperature Physics and Engineering, Kharkiv, Ukraine |
| 2007 - 2016 | Engineer, B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Kharkiv, Ukraine |

EDUCATION:

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| 2017 - 2021 | Ph. D. student, B.Verkin Institute for Low Temperature Physics and Engineering, Kharkiv, Ukraine |
| 2006 | Magister of Physics, V.N. Karazin Kharkiv National University, Ukraine |
| 2005 | Bachelor of Physics, V.N. Karazin Kharkiv National University, Ukraine |

AREA OF EXPERTISE: Magnetoelasticity; physics of magnetic phenomena; phase transitions of different nature in solids; precision measurements of the elastic modules of single crystals.

List of recent relevant publications:

1. V.D. Fil., D.V. Fil., G.A. Zvyagina, I.V. Bilych, K.R. Zhakov, [Piezomagnetism in a mixed state in FeSe-based superconductors](#) [Low Temp. Phys. **49**, 614, (2023)]
2. I.V. Bilych, K.R. Zhakov, T.N. Haidamak, G.A. Zvyagina, D.V. Fil., V.D. Fil., [Study of magnetoelastic interaction in MnF₂ by the acoustoelectric transformation method](#) [Low Temp. Phys. **48**, 537, (2022)]
3. V.D. Fil., D.V. Fil., G.A. Zvyagina, K.R. Zhakov, I.V. Bilych, D.A. Chareev, M.P. Kolodyazhnaya, A. Bludov, E. Nazarova, [Piezomagnetism of superconducting iron chalcogenides](#) Phys. Rev. B, **104**, 094424, (2021)
4. I.V. Bilych, M.P. Kolodyazhnaya, K.R. Zhakov, I.V. Bilych, G.A. Zvyagina, V.D. Fil., I.A. Gudim, [Elastic, magnetoelastic, magnetopiezoelectric, and magnetodielectric characteristics of HoAl₃\(BO₃\)₄](#) [Low Temp. Phys. **46**, 923, (2020)]
5. L.S. Kolodyazhnaya, G.A. Zvyagina, I.V. Bilych, K.R. Zhakov, N.G. Burma, V.D. Fil, and I.A. Gudim, [Magnetocapacitance, magnetoelasticity, and magnetopiezoelectric effect in HoFe₃\(BO₃\)₄](#) [Low Temp. Phys. **44**, 1341, (2018)]
6. V.D. Fil., M.P. Kolodyazhnaya, G.A. Zvyagina, I.V. Bilych, K.R. Zhakov, [Piezomagnetoelectric effect in LiCoPO₄](#), Phys. Rev. B, **96**, 180407, (2017)
7. M.P. Kolodyazhnaya, K.R. Zhakov, I.V. Bilych, G.A. Zvyagina, and A.A. Zvyagin, [Reentrant low-temperature phase transition in an “orbital nematic”](#) [Low Temp. Phys. **43**, 1276, (2017)]
8. M.P. Kolodyazhnaya, G.A. Zvyagina, I.V. Bilych, K.R. Zhakov, N.F. Kharchenko, V.D. Fil, [Is LiCoPO₄ a pyroelectric?](#) [Low Temp. Phys. **43**, 1240, (2017)]
9. M.P. Kolodyazhnaya, G.A. Zvyagina, I.A. Gudim, I.V. Bilych, N.G. Burma, K.R. Zhakov, V.D. Fil, [Piezoelectric response in SmFe₃\(BO₃\)₄, a non-piezoactive configuration. The surface piezoelectric effect](#) [Low Temp. Phys. **43**, 924, (2017)]
10. G.A. Zvyagina, K.R. Zhakov, I.V. Bilych, I.A. Gudim, V.D. Fil., [Magnetopiezoelectric effect and magnetocapacitance in SmFe₃\(BO₃\)₄](#), Phys. Rev. B, **92**, 214428, (2015)
11. G.A. Zvyagina, K.R. Zhakov, I.V. Bilych, A.A. Zvyagin, A.N. Bludov., V.A., Pashchenko, and I.A. Gudim, [Magnetic field-induced phase transitions in the antiferromagnetic Nd_{0.6}Dy_{0.4}Fe₃\(BO₃\)₄](#) [Low Temp. Phys. **40**, 146, (2014)]
12. G.A. Zvyagina, K.R. Zhakov, I.V. Bilych, A.A. Zvyagin, I.A. Gudim, V.L. Temerov, and E.V. Eremin, [Magnetoelastic studies of Nd_{0.75}Dy_{0.25}Fe₃\(BO₃\)₄ in the external magnetic field: Magnetic phase transitions](#) [Low Temp. Phys. **39**, 936 (2013)]
13. G.A. Zvyagina, K.R. Zhakov, A.A. Zvyagin, I.A. Gudim, and I.V. Bilych, [[Low Temp. Phys. 38, 446 \(2012\)](#)]
14. G.A. Zvyagina, K.R. Zhakov, I.V. Bilych, A.A. Zvyagin, I.A. Gudim, and V.L. Temerov, [Magnetic phase transitions in the NdFe₃\(BO₃\)₄ multiferroic](#) [Low Temp. Phys. **37**, 1010 (2011)]
15. G.A. Zvyagina, K.R. Zhakov, A.A. Zvyagin, I.V. Bilych, L.N. Bezmaternykh, and I.A. Gudim [[Low Temp. Phys. 36, 279 \(2010\)](#)]
16. G.A. Zvyagina, K.R. Zhakov, L.N. Bezmaternykh, I.A. Gudim, I.V. Bilych, and A.A. Zvyagin [[Low Temp. Phys. 34, 901 \(2008\)](#)]

CONFERENCES:

- [Anniversary X International Conference for Professionals and Young Scientists “Low Temperature Physics” \(ICPYS–LTP–2019\)](#)
- [International Advanced Study Conference “Condensed Matter & Low Temperature Physics 2020” \(CM & LTP 2020\)](#)
- [III International Conference “Condensed Matter & Low Temperature Physics 2023” \(CM & LTP 2023\)](#)