

CURRICULUM VITAE (CV)

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Education

B.S. and M.S. Physics, Physics, V.N. Karazin Kharkiv National University, 1978



Ph.D. in Physics, B.Verkin Institute for Low Temperature Physics & Engineering of the National Academy of Sciences of Ukraine, (ILTPE of NASU) 1983
Doctor of Sci., ILTPE, 1999



Networks Usage in Physics and Math. Courses (NUMAPS), IITAP at The University of low a, 1998



International Women in Science & Engineering (IWSE) Program for Women in Science, IITAP at The University of low a, 1998, 1999, 2000

Affiliations and Appointments:

Since 2002 *Leading scientist*, ILTPE of NASU
Professor 2010



1999-2002 *Senior scientist*, ILTPE of NASU

Visiting scientist:

1997 *Institute of Physics PAN, Warsaw POLAND*



1999 *Centre de Recherches sur les Très Basses Températures, Institute Neel Grenoble FRANCE*



2000 *Laboratoire National des Champs Magnétiques Intenses*



2002 *Ames Lab at the Iowa University USA*



2004, 2006, 2016 *Instituto de Ciencia de Materiales de Aragón (CSIC - Universidad de Zaragoza)
SPAIN*



2005, 2013, 2017 *Department of Physics Cavendish Laboratory at Cambridge University UNITED KINGDOM*

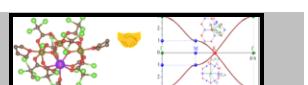


2009 *International Laboratory of High Magnetic Fields and Low Temperatures, Wrocław Institute of Low Temperature and Structure Research, PAS POLAND*



Research expertise:

Materials anisotropy effects in honeycomb structures and coordination complexes with bi-stable ground state for quantum applications, the role of complexity, criticality & exotic phase transitions on their specified properties formation, numerical and magneto-structural analysis.



Publications: 4 books, above 200 papers in the international peer-reviewed scientific journals

Recent (5 years) publications

Books

[1] V.G. Peschansky, V.A. Sirenko, D.I. Stepanenko, Kinetic Phenomena and Collective modes in Highly Anisotropic Organic Conductors, Cambridge Scientific Publishers, Cambridge 2020, 107 p.

Relevant Papers

[2] V. A. Sirenko, F. Bartolomé and J. Bartolomé, Paradigm of Magnetic Molecule in Quantum Matter: Slow Molecular Spin Relaxation Fiz. Nyzkykh Temp. /Low Temp. Phys., 50, 477–49 (2024)
<https://doi.org/10.1063/10.0026056>

[3] V. V. Eremenko, S. S. Saxena, V. A. Sirenko, and K. A. Minakova, Polyamorphism gets a magnetic boost Fizyka Nyzkykh Temperatur/Low Temperature Physics, 2024, Vol. 50, No. 7, pp. 594–604 (2024)

[4] S. B. Feodosyev; V. A. Sirenko; E. S. Syrkin; E. V. Manzhelii; I. S. Bondar; K. A. Minakova, Localized and quasi-localized energy levels in the electron spectrum of graphene with isolated boron and nitrogen substitutions , Low Temp. Phys. 49, 30–37 (2023) <https://doi.org/10.1063/10.0016473>

[5] I. A. Gospodarev; V. A. Sirenko; E. S. Syrkin; S. B. Feodosyev; K. A. Minakova, Low dimensional features of graphene nanostructure stability and vibrational characteristics (Review), Low Temp. Phys. 46, 232–257 (2020) <https://doi.org/10.1063/10.0000706>

[6] J. Bartolomé, E. Bartolomé, V. V. Eremenko, V. V. Ibulaev, V. A. Sirenko, Yu. T. Petrusenko, (2009). Magnetic Anisotropy in 2H-NbSe Electron Irradiated Single Crystals. In Solid State Phenomena (Vols. 152–153, pp. 470–473). Trans Tech Publications, Ltd. <https://doi.org/10.4028/www.scientific.net/ssp.152-153.470>

[7] V.A. Sirenko, Critical phenomena in uniaxial superconductors and magnetic materials, Low Temperature Physics / Фізика низьких температур, 2012, т. 38, № 9, с. 1007–1017

[8] Spin-glass polyamorphism induced by a magnetic field in LaMnO₃ single crystal, V V Eremenko, V A Sirenko, A Baran, E Čížmár and A Feher, 2018, J. Phys.: Condens. Matter 30 205801
<https://doi.org/10.1088/1361-648X/aabc9d>

Teaching:

- under guidance 4 PhD thesis have been defended
- course of lectures on modern trends in low -temperature magnetism for PhD students at ILTPE (present)
- course of physics in English at Kharkiv Lyceum #6 (1992-1999)

Service:

Editorial activity



- Cambridge Scientific Publishers Ltd (since 2008)
- Editorial Board Member of *Fizika Nyzkyh Temperatur journal* and Guest editor of special issues of *Low Temperature Physics* ed. by ILTPE and AIP : "Magnetic materials: From molecules to devices" - to the 75th birthday of Prof. Juan Bartolomé, "Low Temperature magnetostriction of magnets and superconductors", "Low Dimensionality and inhomogeneity effects in quantum matter" - to the 85-th Victor Eremenko birthday.



Grant writing and management

- 2006 STCU grant #4119 (PI V.Eremenko);
- NATO Advanced Study Institute "Modern trends in magnetostriction study and application", NATO Advanced Research Workshops: "Low Temperature Quantum Effects: dynamic interactions in technical applications" Warsaw , Poland (2002); "Smart Materials for Ranging Systems", (2004).



Awards

2004 NAS of Ukraine Shubnikov prize winner



1997 Soros Professor

