

# Curriculum vitae

*First name and surname:*

Vasyl Kuryliuk

*Date of Birth:*

23 July 1982

*Address:*

64/13, Volodymyrska Street,  
01601 Kyiv, Ukraine

*Phone:*

+380987117118

*Civil status:*

Married

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## Status:

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*Position:*

Head of Department

*Establishment:*

Department of Metal Physics, Faculty of Physics, Taras  
Shevchenko National University of Kyiv

*Phone:*

+380445213312

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[dekanat203@gmail.com](mailto:dekanat203@gmail.com)

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## Education:

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2005 – 2008

PhD-student, Solid State Physics, Taras Shevchenko National  
University of Kyiv, Kyiv (Ukraine)

1999–2005

MSc in Physical Science, Taras Shevchenko National University  
of Kyiv, Kyiv (Ukraine)

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## Professional experiences:

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04.2021 – current

Head of the Department of Metal Physics, Faculty of Physics,  
Taras Shevchenko National University of Kyiv

12.2013 – 04.2021

Associate Professor at the Metal Physics Department, Faculty  
of Physics, Taras Shevchenko National University of Kyiv

09.2008 – 12.2013

Assistant Professor at the Metal Physics Department, Faculty of  
Physics, Taras Shevchenko National University of Kyiv

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## Research Skills:

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*Modeling:*

Analytic, semi-analytic approaches

*Simulation:*

Molecular Dynamics (LAMMPS), Anharmonic Lattice Dynamics  
(kALDo), FEM (FlexPDE), Maple, C/C++, Fortran

*Experimental competencies:*

Photovoltage decay techniques, 3-omega techniques

*Languages:*

Ukrainian, Russian, English

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## Participation in scientific projects:

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**National Research Foundation of Ukraine**, (2020 – 2023). Competition "Leading and Young Scientists Research Support" 2020. Computer design, synthesis and heat transfer properties of silicon nanostructures for energy efficient applications (**project leader**).

**Ministry of Education and Science of Ukraine**, (2016 – 2018). Competition of Projects of Scientific Works of Young Scientists 2016. Features of the stress state of SiGe quantum dots in the crystalline and amorphous matrices (**project leader**).

**Ministry of Education and Science of Ukraine**, (2015). Competition of Projects of Scientific Works of Young Scientists 2015. Analysis of mechanical stress in semiconductor nanostructures for the photo- and thermovoltaic applications (**project leader**).

**Ukrainian Foundation for Basic Research**, (2012). Grants of the President of Ukraine to Support Scientific Research of Young Scientists 2012. Engineering of mechanical stress in semiconductor heterostructures as a basis for the latest architecture of nanodevices (**project leader**).

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## Academics awards:

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2016	Scholarship of Cabinet of Ministers of Ukraine for young scientists
2013	Awarded by the Taras Shevchenko Prize and Medal of Taras Shevchenko National University of Kyiv

### Publication summary (total)

32 articles in international journals (Scientific Reports, PRB, JAP, PCCP);

15 articles in national (Ukrainian) journals;

14 articles in proceedings;

34 abstracts in conferences and seminars.

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## Selected Publications:

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1. **V. Kuryliuk**, O. Tyvonovych, S. Semchuk. Impact of Ge clustering on the thermal conductivity of SiGe nanowires: atomistic simulation study. Phys. Chem. Chem. Phys., 2023. Vol.25. P. 6263 (7p.). (**Q1, IF -3.945**)

2. **V.V. Kuryliuk**, S.S. Semchuk, K.V. Dubyk, R.M. Chorny Structural features and thermal stability of hollow-core Si nanowires: A molecular dynamics study. Nano-Structures and Nano-Objects, 2022. V. 29. P. 100822 (8p.). (**Q1**)

3. A. Nadtochiy, **V. Kuryliuk**, V. Strelchuk, O. Korotchenkov, P.-W. Li and S.-W. Lee Enhancing the Seebeck effect in Ge/Si through the combination of interfacial design features. Scientific Reports, 2019. V.9. P. 16335 (11 p.). (**Q1, IF -4.525**)

4. **V. Kuryliuk**, O. Nepochatyi, P. Chantrenne, D.Lacroix, and M. Isaiev Thermal conductivity of strained silicon: Molecular dynamics insight and kinetic theory approach. Journal of Applied Physics, 2019. V.126. P. 055109 (13 p.). (**Q2, IF -2.328**)

5. B. Gorelov, A. Gorb, A. Nadtochiy, D. Starokadomsky, **V. Kuryliuk**, N. Sigareva, S. Shulga, V. Ogenko, O. Korotchenkov, O. Polovina. Epoxy filled with bare and oxidized multi-layered graphene nanoplatelets: a comparative study of filler loading impact on thermal properties. Journal of Materials Science, 2019. V. 54. P. 9247 – 9266. (**Q1, IF - 2.993**)