№ кандидата в бюллетене	**23**
ФИО	**Косевич Юрий Арнольдович**
Должность	Главный научный сотрудник
Лаборатория	1638 (Лаборатория физики и механики полимеров)
Год рождения	1956

Наименование вуза, специальность	Физический факультет МГУ, физика, квантовая теория твердого тела
Ученая степень, год ее присуждения	Доктор физико-математических наук, 1992
h-индекс (Scopus или WoS):	24
Общее количество публикаций за последние 5 лет (2019-н.в.):	22
Из них в журналах первого квартиля (Q1/Scimago) или первого уровня «Белого списка» Минобрнауки	8
Общее количество цитирований всех ранее опубликованных работ (по данным РИНЦ, Scopus, WoS)	2398 (РИНЦ) 2073 (Scopus)
Количество проектов в рамках гособоронзаказа под руководством кандидата за последние 5 лет	0

Основная тематика научной работы

Нелинейная физика и механика полимеров, наноструктур и метаматериалов атомарного масштаба. Тепло- и энергоперенос в низкоразмерных системах различной природы. Механические и оптические свойства листов графена и графеновых наноструктур в полимерной матрице. Когерентные и резонансные явления при распространении решеточных волн (фононов) через массивы атомарных дефектов в кристаллах.

Список ключевых научных публикаций за последнее время (2019 – н.в.)

1. Yu. A. Kosevich, A. N. Darinskii, I. A. Strelnikov. Diffraction and transmission antiresonances of lattice waves in sparse two-dimensional arrays of defect atoms. Journal of Sound and Vibration 553, 117663-1 -- 117663-18 (2023). https://doi.org/10.1016/j.jsv.2023.117663
2. I. P. Koroleva (Kikot) and Yu. A. Kosevich. Effects of nonlinearity and new nonlinear resonance in two-path phonon transmittance in lattices with two-dimensional arrays of atomic defects. Physical Review E 107, 054217-1 -- 054217-19 (2023). https://doi.org/10.1103/PhysRevE.107.054217
3. J. Ordonez-Miranda, Yu. A. Kosevich, M. Nomura, and S. Volz. Long-range, shortwavelength, and ultrafast heat conduction driven by three plasmon modes supported by graphene. Physical Review B 108, L161404-1-- L161404-7 (2023). https://doi.org/10.1103/PhysRevB.108.L161404
4. J. Ordonez-Miranda, Yu. A. Kosevich, B. J. Lee, M. Nomura, and S. Volz. Plasmon Thermal Conductance and Thermal Conductivity of Metallic Nanofilms. Physical Review Applied 19, 044046-1-- 044046-10 (2023). https://doi.org/10.1103/PhysRevApplied.19.044046
5. Yu. A. Kosevich. Soft flexural waves and self-localization of wrinkling modes of single- and few-layer graphene under compression in a compliant matrix. Physical Review B 105, L121408-1--L121408-8 (2022). https://doi.org/10.1103/PhysRevB.105.L121408 2.10.

Дополнительная информация о кандидате

Руководитель 1 международного гранта РФФИ, руководитель 1 гранта РНФ и исполнитель 1 гранта РФФИ за последние 5 лет.

Ведущий научный сотрудник (внешнее совместительство) научной лаборатории «Перспективные композиционые материалы и технологии» базовой кафедры «Химия и инновационные материалы и технологии» Российского экономического университета им. Г.В. Плеханова.

Основные направления научной деятельности Ю.А. Косевича

1. Когерентные и резонансные явления при распространении решеточных волн (фононов) через двумерные массивы атомарных дефектов в кристаллах.

   Впервые предсказано невзаимность прохождение решеточных волн через границу раздела кристаллов или сплошных сред с включенным двумерным слоем нелинейных атомарных дефектов.

   Впервые предсказано туннелирование фононов через вакуумную щель между двумя непьезоэлектричесим материалами, которое происходит благодаря дальнодействующеиу вандерваальсову взаимодействию.

   Вперые предсказана возможность полного отражения или полного поглощения объемной акустической волны монослоем резонансных атомарных осцилляторов с затуханием.

2. Нелинейная физика и механика полимеров, наноструктур и метаматериалов атомарного масштаба.

   Впервые описана нелинеяная туннельная динамика солитонов огибающих и бризеров в связанных молекулярных цепях.

3. Тепло- и энергоперенос в низкоразмерных системах различной природы.

   Впервые показана возможность значительнрого понижения коэффициента теплопроводности в нанопроволоках и нанополосах с динамически шероховатыми поверхностями и краями.

   Впервые предсказано существование резонанса прохождения в спектре Фабри-Перо диэлектрическго нанослоя с включенным двумерных элекотонным газом или листом допированного графена.

4. Механические и оптические свойства листов графена и графеновых наноструктур в полимерной матрице.

   Вперые предсказана и аналитически описана само-локализация сморщивания листа графена или двумерного атомарного кристалла, помещенного на или включенного в податливую полимерную матрицу, под действием одноосного или двухосного сжатия.

   Впервые показано, что симметрия наноструктуры с однослойным или двухслойным графеном существенно влияет на время жизни плазмон-поляритонов в системе. Показано. что время жизни плазмон-поляритонов расходится при симметричном расположении листа графена независмо от собственного времени свободного пробега электронов в графене.

Научные публикации Ю.А. Косевича
(на английском языке)

1. Yury A. Kosevich, Irina P. Koroleva (Kikot) "Interplay of interference and nonlinearity in phonon energy transport through arrays of two-path anharmonic atomic defects in lattices and through two-path anharmonic atomic-scale junctions", Proceeding of 17th International Heat Transfer Conference (IHTC-17, Cape Town, South Africa, 14-18 August 2023), pp. 3852-3858, ID: 738. ISBN: 978-1-56700-537-0, E-ISBN: 978-1-56700-537-7, https://doi.org/10.1615/IHTC17.290-90

2. J. Ordonez-Miranda, Yu. A. Kosevich, M. Nomura, and S. Volz "Long-range, short-wavelength, and ultrafast heat conduction driven by three plasmon modes supported by graphene", Physical Review B **108**, L161404-1–L161404-7 (2023). https://doi.org/10.1103/PhysRevB.108.L161404

3. J. Ordonez-Miranda, Yu. A. Kosevich, B. J. Lee, M. Nomura, and S. Volz "Plasmon Thermal Conductance and Thermal Conductivity of Metallic Nanofilms", Physical Review Applied **19**, 044046-1–044046-10 (2023). https://doi.org/10.1103/PhysRevApplied.19.044046

4. I. P. Koroleva (Kikot) and Yu. A. Kosevich "Effects of nonlinearity and new nonlinear resonance in two-path phonon transmittance in lattices with two-dimensional arrays of atomic defects", Physical Review E **107**, 054217-1–054217-19 (2023). https://doi.org/10.1103/PhysRevE.107.054217

5. Yu. A. Kosevich, A. N. Darinskii, I. A. Strelnikov "Diffraction and transmission antiresonances of lattice waves in sparse two-dimensional arrays of defect atoms", Journal of Sound and Vibration **553**, 117663-1–117663-18 (2023). https://doi.org/10.1016/j.jsv.2023.117663

6. Yu. A. Kosevich "Soft flexural waves and self-localization of wrinkling modes of single- and few-layer graphene under compression in a compliant matrix", Physical Review B **105**, L121408-1–L121408-8 (2022). https://doi.org/10.1103/PhysRevB.105.L121408

7. Yury Kosevich, Alexandr Chetverikov, and Yusuke Doi "Self-localization of supersonic negative-effective-mass electrons or excitons in 1D lattices", LCM 2021 (Localisation in Condensed Matter) within CMD 29 online series, November 2021, Abstract booklet, p. 6.

8. Yuriy A. Kosevich "Analytical model of strongly localized wrinkling modes of mono- and few-layer graphene sheets in or on a compliant strained matrix" , NODYCON 2021, February 2021, Book of Abstracts, p. 37.

9. Yu. A. Kosevich, I. A. Strelnikov "Strongly localized wrinkling modes of single- and few-layer graphene sheets in or on a compliant matrix under compression", arXiv:2101.11719 (January 2021).

10. A. V. Savin and Yu. A. Kosevich "Conformations and thermal dynamics of graphene-based polymer nanocarpets", Materials Science & Engineering B **264**, 114920-1-114920-6 (2021). https://doi.org/10.1016/j.mseb.2020.114920

11. S. Hu, L. Feng, C. Shao, I. A. Strelnikov, Yu. A. Kosevich, and J. Shiomi "Two-path phonon interference resonance induces a stop band in a silicon crystal matrix with a

12. Yu. A. Kosevich and I. A. Strelnikov "Extraordinary phonon transmission through hidden lattice-wave nanochannels as resonance quantum phonon tunneling", AIP Conference Proceedings **2241**, 020023-1—020023-6 (2020). https://doi.org/10.1063/5.0011386

13. Yuriy A. Kosevich and Yusuke Doi "Localization and trapping of negative-effective-mass electrons by supersonic kinks in nonlinear chains with realistic interatomic potentials and electron-phonon interactions", NODYCON 2019, February 2019, Book of Abstracts, pp. 165-166, ISBN No. 978-88-944229-0-0.

14. A. V. Savin and Yu. A. Kosevich "Modeling of One-Side Surface Modifications of Graphene", Materials **12**, 4179-1–4179-14 (2019). http://dx.doi.org/10.3390/ma12244179

15. Margarita Kovaleva, Yuriy Kosevich, Valery Smirnov, Leonid Manevitch "Beats in the system of three non-linear oscillators and their quantum analog", Commun. Nonlinear Sci. Numer. Simulat. **74**, 138—146 (2019). https://doi.org/10.1016/j.cnsns.2019.02.013

16. Yu. A. Kosevich "Phase Dynamics of Intrinsic Localized Modes in Two Weakly Coupled Nonlinear Chains and Correspondence Between Periodic Tunneling of Classical and Quantum Objects", in I. V. Andrianov, A. I. Manevich, Y. V. Mikhlin, and O. V. Gendelman (Eds.) *Problems of Nonlinear Mechanics and Physics of Materials*, Advanced Structured Materials, vol. 94 (Springer International Publishing AG, part of Springer Nature 2019, Cham, Switzerland), pp. 39–52.
$https://doi.org/10.1007/978-3-319-92234-8_4$

17. J. F. R. Archilla, Y. Zolotaryuk, Yu. A. Kosevich, and Y. Doi "Nonlinear waves in a model for silicate layers", Chaos **28**, 083119-1–083119-15 (2018).
http://aip.scitation.org/toc/cha/28/8

18. Yu. A. Kosevich, A. A. Kistanov, and I. A. Strelnikov "Bending instability of few-layer graphene embedded in strained polymer matrix", Letters on Materials **8**, 278–281 (2018). DOI: 10.22226/2410-3535-2018-3-278-281

19. Yu. A. Kosevich "Phase dynamics of discrete breathers periodically tunneling in weakly coupled nonlinear chains", Low Temperature Physics **44**, 671–677 (2018).
https://doi.org/10.1063/1.5041433

20. Yu. A. Kosevich, L. G. Potyomina, A. N. Darinskii, and I. A. Strelnikov "Phonon interference control of atomic-scale metamirrors, meta-absorbers, and heat transfer through crystal interfaces", Physical Review B **97**, 094117-1–094117-27 (2018). DOI: 10.1103/PhysRevB.97.094117

21. Yu. A. Kosevich and I. A. Strelnikov "Quantum Interference between Two Phonon Paths and Reduced Heat Transport in Diamond Lattice with Atomic-Scale Planar Defects", AIP Conference Proceedings **1936**, 020002-1—020002-6 (2018).
https://doi.org/10.1063/1.5025440

22. Yu. A. Kosevich, O. Yu. Tkachenko, and E. S. Syrkin "Transmission of Thermal Phonons in Superfluid Helium Through Nonlinear Meta-Interface with a Solid", in J.F.R. Archilla, F. Palmero, M. C. Lemos, B. Sánchez-Rey, and J. Casado-Pascual (Eds.) *Nonlinear Systems, Vol. 2. Nonlinear Phenomena in Biology, Optics and Condensed Matter*, Springer Complexity: Understanding Complex Systems (Springer International Publishing

23. A. Mehrem, L. J. Salmerón-Contreras, N. Jiménez, V. J. Sánchez-Morcillo, R. Picó, L. M. García-Raffi, J. F. R. Archilla, and Yu. A. Kosevich "Kinks in a Lattice of Repelling Particles", in J.F.R. Archilla, F. Palmero, M. C. Lemos, B. Sánchez-Rey, and J. Casado-Pascual (Eds.) *Nonlinear Systems, Vol. 2. Nonlinear Phenomena in Biology, Optics and Condensed Matter*, Springer Complexity: Understanding Complex Systems (Springer International Publishing AG 2018, Cham, Switzerland), pp. 261-282. $https://doi.org/10.1007/978-3-319-72218-4_1 1$

24. L. Feng, T. Shiga, H. Han, S. Ju, Yu. A. Kosevich, and J. Shiomi "Phonon-interference resonance effects by nanoparticles embedded in a matrix", Physical Review B Rapid Communications **96**, 220301-1–220301-5 (2017).

25. Yu. A. Kosevich "Charged ultradiscrete supersonic kinks and discrete breathers in nonlinear molecular chains with realistic interatomic potentials and electron-phonon interactions", Journal of Physics: Conference Series **833**, 012021-1–012021-6 (2017).

26. Yu. A. Kosevich, E. S. Syrkin, and O. Yu. Tkachenko "Transmission of quasiparticle excitations through interfaces between two media (Review Article)", Low Temperature Physics **42**, 609–616 (2016).

27. Yu. A. Kosevich and E. S. Syrkin "On the 75th anniversary of the discovery of the Kapitza thermal resistance", Low Temperature Physics **42**, 607–608 (2016).

28. Yu. A. Kosevich "Non-linear mechanical analogue of quantum Rabi oscillations in coherent output coupler for atoms in Bose-Einstein condensate", Journal of Micromechanics and Molecular Physics **1**, 1650007-1–1650007-5 (2016).

29. Yu. A. Kosevich "Nonlinear vibrational analogue of coherent output coupler for atoms in Bose-Einstein condensate Letters on Materials **6**, 54–56 (2016).

30. Yu. A. Kosevich and A. V. Savin "Confining interparticle potential makes both heat transport and energy diffusion anomalous in one-dimensional phononic systems", Physics Letters A **380**, 3480–3484 (2016).

31. H. Han, L. Feng, S. Xiong, T. Shiga, J. Shiomi, S. Volz, and Yu. A. Kosevich "Long-range interatomic forces can minimize heat transfer: From slowdown of longitudinal optical phonons to thermal conductivity minimum", Physical Review B **94**, 054306-1-054306-8 (2016).

32. H. Han, L. Feng, S. Xiong, T. Shiga, J. Shiomi, S. Volz, and Yu. A. Kosevich "Effects of phonon interference through long range interatomic bonds on thermal interface conductance", Low Temperature Physics **42**, 711–716 (2016).

33. S. Xiong, K. Sääskilahti, Yu. A. Kosevich, H. Han, D. Donadio, and S. Volz "Blocking Phonon Transport by Structural Resonances in Alloy-Based Nanophononic Metamaterials Leads to Ultralow Thermal Conductivity", Physical Review Letters **117**, 025503-1–025503-6 (2016).

34. H. Han, Y. Zhang, N. Wang, M.K. Samani, Y. Ni, Z.Y. Mijbil, M. Edwards, S. Xiong, K. Sääskilahti, M. Murugesan, Y. Fu, L. Ye, H. Sadeghi, S. Bailey, Yu.A. Kosevich, C.J.

35. Yu.A. Kosevich, H. Han, L.G. Potyomina, A.N. Darinskii, S. Volz "Phonon Interference and Energy Transport in Nonlinear Lattices with Resonance Defects", in J.F.R. Archilla, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi (Eds.) *Quodons in Mica*, Springer Series in Materials Science, Volume 221 (Springer International Publishing Switzerland, 2015), pp. 247-263.

36. J.F.R. Archilla, Yu.A. Kosevich, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi "A Supersonic Crowdion in Mica. Ultradiscrete Kinks with Energy Between 40K Recoil and Transmission Sputtering", in J.F.R. Archilla, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi (Eds.) *Quodons in Mica*, Springer Series in Materials Science, Volume 221 (Springer International Publishing Switzerland, 2015), pp. 69-96.

37. H. Han, B. Li, S. Volz, and Yu. A. Kosevich "Ultracompact interference phonon nanocapacitor for storage and lasing of coherent terahertz lattice waves Physical Review Letters **114**, 145501-1-145501-6 (2015).

38. J. F. R. Archilla, Yu. A. Kosevich, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi "Ultradiscrete kinks with supersonic speed in a layered crystal with realistic potentials Phys. Rev. E **91**, 022912-1- 022912-12 (2015).

39. S. Xiong, Yu.A. Kosevich, K. Sääskilahti, Y. Ni, and S. Volz "Tunable thermal conductivity in silicon twinning superlattice nanowires Phys. Rev. B **90**, 195439-1-195439-7 (2014).

40. H. Han, L. Potyomina, A.A. Darinskii, S. Volz, and Yu.A. Kosevich "Phonon interference and thermal conductance reduction in atomic-scale metamaterials Phys. Rev. B Rapid Communications **89**, 180301-1-180301-5 (2014).

41. S. Xiong, K. Yang, Yu.A. Kosevich, Y. Chalopin, R. DÁgosta, P. Cortona, and S. Volz "Classical to Quantum Transition of Heat Transfer between Two Silica Clusters Phys. Rev. Lett. **112**,114301-1-114301-5 (2014).

42. Y. Ni, Yu.A. Kosevich, S. Xiong, Y. Chalopin, and S. Volz "Substrate-induced cross-plane thermal propagative modes in few-layer graphene Phys. Rev. B **89**, 205413-1-205413-5 (2014).

43. A.V. Savin and Yu.A. Kosevich "Thermal conductivity of molecular chains with asymmetric potentials of pair interactions Phys. Rev. E **89**, 032102-1-032102-12 (2014).

44. J.F.R. Archilla, Yu.A. Kosevich, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi "Supersonic Kinks in Coulomb Lattices in R. Carretero-GonzГЎlez, J. Cuevas-Maraver, D. Frantzeskakis, N. Karachalios, P. Kevrekidis, and F. Palmero-Acebedo (Eds.) *Localized Excitations in Nonlinear Complex Systems*, Nonlinear Systems and Complexity, Volume 7 (Springer International Publishing Switzerland, 2014), pp. 317-331.

45. Yu.A. Kosevich and V.V. Gann "Magnon localization and Bloch oscillations in finite Heisenberg spin chains in an inhomogeneous magnetic field J. Phys.: Condens. Matter **25**, 246002-1-246002-11 (2013).

46. J.F.R. Archilla, Yu. A. Kosevich, N. Jimenez, V.J. Sánchez-Morcillo, and L.M. García-Raffi "Moving excitations in cation lattices Ukrainian Journal of Physics **58**, 647-657 (2013).

48. Yu. A. Kosevich, A. V. Savin, and A. Cantarero "Effects of quantum statistics of phonons on the thermal conductivity of silicon and germanium nanoribbons Nanoscale Research Letters **8**, 7-1-7-4 (2013).

49. A. V. Savin, Yu. A. Kosevich, and A. Cantarero "Semiquantum molecular dynamics simulation of thermal properties and heat transport in low-dimensional nanostructures Phys. Rev. B **86**, 064305-1-064305-17 (2012).

50. M. M. de Lima, Jr., P. V. Santos, Yu. A. Kosevich, and A. Cantarero "Tunable coupled surface acoustic cavities Appl. Phys. Lett. **100**, 261904-1-261904-4 (2012).

51. M. M. de Lima, Jr., Yu. A. Kosevich, P. V. Santos, and A. Cantarero "Surface Acoustic Analog of Bloch Oscillations, Wannier Stark Ladders and Landau Zener Tunneling AIP Conference Proceedings **1399**, 335-336 (2011).

52. Yu. A. Kosevich, M. M. de Lima, Jr., P. V. Santos, and A. Cantarero "Surface acoustic Bloch oscillations and multiple resonant Landau-Zener tunneling in a solid Chinese Journal of Physics **49**, 514-519 (2011).

53. A. Kovaleva, L. I. Manevitch, and Yu. A. Kosevich "Fresnel integrals and irreversible energy transfer in an oscillatory system with time-dependent parameters Phys. Rev. E **83**, 026602-1-026602-12 (2011).

54. L. I. Manevitch, Yu. A. Kosevich, M. Mane, G. Sigalov, L. A. Bergman, and A. F. Vakakis "Towards a new type of energy trap: Classical analog of quantum Landau-Zener tunneling International Journal of Non-Linear Mechanics **46**, 247-252 (2011).

55. Yu. A. Kosevich, L. I. Manevitch, and E. L. Manevitch "Vibrational analogue of nonadiabatic Landau-Zener tunneling and a possibility for the creation of a new type of energy traps", Physics-Uspekhi **53**, 1281-1286 (2010).

56. M. M. de Lima, Jr., Yu. A. Kosevich, P. V. Santos, and A. Cantarero "Surface acoustic Bloch oscillations, the Wannier-Stark ladder, and Landau-Zener tunneling in a solid Phys. Rev. Lett. **104**, 165502-1-165502-4 (2010).

57. V. V. Gann and Yu. A. Kosevich "Bloch oscillations of spin waves in a nonuniform magnetic field", Low Temperature Physics **36**, 722-727 (2010).

58. Yu. A. Kosevich and A. V. Savin, "Reduction of phonon thermal conductivity in nanowires and nanoribbons with dynamically rough surfaces and edges", Europhys. Lett. **88**, 14002-p1-14002-p6 (2009).

59. Yu. A. Kosevich, L. I. Manevitch, and A. V. Savin "Energy transfer in weakly coupled nonlinear oscillator chains: Transition from a wandering breather to nonlinear self-trapping", Journal of Sound and Vibration **322**, 524-531 (2009).

60. E. S. Syrkin, S. B. Feodos'ev, K. V. Kravchenko, A. V. Eremenko, B. Ya. Kantor, and Yu. A. Kosevich "Flexural rigidity of layers and its manifestation in the vibrational characteristics of strongly anisotropic layered crystals. Characteristic frequencies and stability conditions in quasi-two-dimensional systems", Low Temp. Phys. **35**, 158-165 (2009).

62. Yu. A. Kosevich, A. Feher, and E. S. Syrkin "Resonance absorption, reflection, transmission of phonons and heat transfer through interface between two solids", Low Temp. Phys. **34**, 575-582 (2008).

63. Yu. A. Kosevich, L. I. Manevitch, and A. V. Savin "Wandering breathers and self-trapping in weakly coupled nonlinear chains: classical counterpart of macroscopic tunneling quantum dynamics", Phys. Rev. E **77**, 046603-1-046603-20 (2008).

64. Yu. A. Kosevich, A. V. Savin, and L. I. Manevitch "Breather self-trapping and delocalization in 2D system of weakly coupled nonlinear chains", IPACS Open Access Library, ENOC 2008 Proceedings, pp. 1768-1772 (2008).

65. Yu. A. Kosevich, A. V. Savin, V. L. Golo, and Yu. S. Volkov "Acoustic phonon generation by intrinsically localized vibrational modes in double-helices of DNA macromolecules and transition from inter-strand energy exchange to nonlinear self-trapping", Journal of the Acoustical Society of America **123**, issue 5, 3553 (2008).

66. Yu. A. Kosevich "Acoustic Bloch oscillations, Wannier-Stark ladders and negative refraction in ultra- and hypersonic superlattices", Journal of the Acoustical Society of America **123**, issue 5, 3548 (2008).

67. Yu. A. Kosevich "Ultrafast Fiske effect in semiconductor superlattices induced by the coupling of electron Bloch oscillations to longitudinal optical phonons and coherent plasmons", Journal of Physics: Conference Series **92**, 012053-1-012053-5 (2007).

68. Yu. A. Kosevich, L. I. Manevitch, and A. V. Savin "Energy transfer in coupled nonlinear phononic waveguides: transition from wandering breather to nonlinear self-trapping", Journal of Physics: Conference Series **92**, 012093-1-012093-5 (2007).

69. Yu. A. Kosevich, J. Sánchez-Dehesa, A. R. Alija, L. J. Martínez, M. L. Dotor, P. A. Postigo, and D. Golmayo "Confined Photon Modes with Triangular Symmetry in Hexagonal Microcavities in 2D Photonic Crystals", e-print cond-mat/0702423 (20 March 2007).

70. H. Sanchis-Alepuz, Yu. A. Kosevich, and J. Sánchez-Dehesa "Acoustic analogue of electronic Bloch oscillations and resonant Zener tunneling in ultrasonic superlattices", Phys. Rev. Lett. **98**, 134301-1-134301-4 (2007).

71. J. Sánchez-Dehesa, H. Sanchis-Alepuz, Yu. A. Kosevich, and D. Torrent "Acoustic analog of electronic Bloch oscillations and Zener tunneling", Journal of the Acoustical Society of America **120**, issue 5, 3283 (2006).

72. Yu. A. Kosevich, J. Sánchez-Dehesa, and C. Goffaux "Transmission effects of flexural shell vibration modes in sonic band-gap crystals made of hollow cylinders in air: A theoretical analysis", Journal of the Acoustical Society of America **119**, issue 5, 3413 (2006).

73. J. Sánchez-Dehesa, Yu. A. Kosevich, and D. Torrent "Theoretical prediction of super-radiant modes in ideal and distorted hexagonal clusters of two-dimensional sonic crystals", Journal of the Acoustical Society of America **119**, issue 5, 3388 (2006).

74. Yu. A. Kosevich, A. B. Hummel, H. G. Roskos, and K. Koehler "Ultrafast Fiske effect in semiconductor superlattices", Phys. Rev. Lett. **96**, 137403-1-137403-4 (2006).

75. Yu. A. Kosevich, A. B. Hummel, H. G. Roskos, and K. Koehler "Generation of a DC

76. Yu. A. Kosevich, C. Goffaux, and J. Sánchez-Dehesa "Fano-like resonance phenomena by flexural shell modes in sound transmission through two-dimensional periodic arrays of thin-walled hollow cylinders", Phys. Rev. B **74**, 012301-1-012301-4 (2006).

77. E. Diaz, F. Dominguez-Adame, Yu. A. Kosevich, and V. A. Malyshev "Wannier-Stark ladder in the linear absorption of a random system with scale-free disorder", Phys. Rev. B **73**, 174210-1-174210-7 (2006).

78. A. B. Hummel, C. Bloeser, T. Bauer, H. G. Roskos, Yu. A. Kosevich, and K. Koehler "Electro-optic investigation of the Coherent Hall Effect in semiconductor superlattices", Phys. Stat. Sol. B **242**, 1175-1178 (2005).

79. Yu. A. Kosevich, R. Khomeriki, and S. Ruffo "Supersonic discrete kink-solitons and sinusoidal patterns with "magic" wavenumber in anharmonic lattices", Europhys. Lett. **66**, 21-27 (2004).

80. Yu. A. Kosevich, J. Ortega-Gallegos, A. G. Rodriquez, L. F. Lastras-Martinez, and A. Lastras-Martinez "Giant reflectance anisotropy of polar cubic semiconductors in the far infrared", Phys. Stat. Sol. C **0**, No 8, 2982-2986 (2003).

81. Yu. A. Kosevich "Magneto-Bloch oscillations, anomalous Hall velocity and nonlinear magnetotransport in semiconductor superlattices", Phys. Stat. Sol. C **0**, No 5, 1467-1471 (2003).

82. Yu. A. Kosevich, K. Ahn, and M. W. Kim "Reevaluation of the crossover from elastic to capillary surface waves on soft gels", Phys. Rev. Lett. **90**, 059601 (2003).

83. K. Ahn, Yu. A. Kosevich, and M. W. Kim "Coexistence of two elastic surface modes enhanced by viscous losses", Europhys. Lett. **60**, 241-247 (2002).

84. Yu. A. Kosevich "Semiclassical balance equations in semiconductor superlattices in strong crossed fields", Phys. Rev. Lett. **88**, 229701 (2002).

85. Yu. A. Kosevich and G. Corso "Temporal Fourier spectra of stationary and slowly moving breathers in Fermi-Pasta-Ulam anharmonic lattice", Physica D **170**, 1-12 (2002).

86. T. Bauer, J. Kolb, A. B. Hummel, H. G. Roskos, Yu. A. Kosevich, and K. Köhler "Coherent Hall effect in a semiconductor superlattice", Phys. Rev. Lett. **88**, 086801-1-086801-4 (2002).

87. Yu. A. Kosevich "Anomalous Hall velocity, transient weak supercurrent, and coherent Meissner effect in semiconductor superlattices", Phys. Rev. B **63**, 205313-1-205313-19 (2001).

88. Yu. A. Kosevich and S. Lepri "Modulational instability and energy localization in anharmonic lattices at finite energy density", Phys. Rev. B **61**, 299-307 (2000).

89. Yu. A. Kosevich and E. S. Syrkin "Surface absorption and resonant interaction of elastic waves with two-dimensional defect", Akustychnyi Visnyk (in Russian) **3**, 62-71 (2000).

90. Yu. A. Kosevich, E. S. Syrkin, D. A. Semagin, and A. M. Kosevich "Effect of phonon damping on the resonance reflection of a transverse sound wave from a planar defect in a crystal", Zh. Eksp. Teor. Fiz. **117**, 1122-1126 (2000) [JETP **90**, 974-978 (2000)].

91. C. Eckl, Yu. A. Kosevich, and A. P. Mayer "Surface acoustic waves and magnetotransport

92. F. Löser, M. Dignam, Yu. A. Kosevich, K. Köhler, and K. Leo "Self-induced Shapiro effect in semiconductor superlattices", Phys. Rev. Lett. **85**, 4763-4766 (2000).

93. F. Löser, Yu. A. Kosevich, K. Köhler, and K. Leo "Dynamics of Bloch oscillations under the influence of scattering and coherent plasmon coupling", Phys. Rev. B **61**, R13 373-R13 376 (2000).

94. F. Löser, M. Sudzius, B. Rosam, V. G. Lyssenko, Y. Kosevich, M. M. Dignam, K. Köhler, and K. Leo "Generation and manipulation of Bloch wave packets", Physica E **7**, 285-288 (2000).

95. Yu. A. Kosevich "Coherent Hall effect and coherent heavy quasiparticles in semiconductor superlattices and coupled quantum wells", Ann. Phys. (Leipzig), **8**, SI-145 - SI-148 (1999).

96. Yu. A. Kosevich and E. S. Syrkin "Dissipative interaction and anomalous surface absorption of bulk phonons at a two-dimensional defect in a solid Phys. Lett. A **251**, 378-386 (1999).

97. Yu. A. Kosevich "Kosevich Replies to Comment on "Nonlinear sinusoidal waves and their superposition in anharmonic lattices"", Phys. Rev. Lett. **79**, 4716 (1997).

98. Yu. A. Kosevich "Giant double-resonant optical rotation and total polarization conversion in gyrotropic and anisotropic two-dimensional systems", Solid State Commun. **104**, 321-326 (1997).

99. Yu. A. Kosevich "Capillary phenomena and macroscopic dynamics of complex two-dimensional defects in crystals", Progr. Surf. Sci. **55**, 1-57 (1997).

100. Yu. A. Kosevich, E. S. Syrkin, and A. M. Kossevich "Vibrations localized near surfaces and interfaces in nontraditional crystals", Progr. Surf. Sci. **55**, 59-111 (1997).

101. Yu. A. Kosevich "Fluctuation subharmonic and multiharmonic phonon transmission and Kapitza conductance between solids with very different vibrational spectra", Czech. J. Phys. (Prague) **46**, Suppl. S5, 2721-2722 (1996).

102. Yu. A. Kosevich "Fluctuation subharmonic and multiharmonic phonon transmission and Kapitza conductance between crystals with very different vibrational spectra", Phys. Rev. B **52**, 1017-1024 (1995).

103. Yu. A. Kosevich and E. S. Syrkin "Macroscopic dynamics of the interface between crystals and total resonance transmission of phonons", Fiz. Nizk. Temp. (Kharkov) **20**, 660-665 (1994) [Low Temp. Phys. **20**, 517-521 (1994)].

104. Yu. A. Kosevich "Subharmonic phonon transmission and Kapitza conductance between crystals with very different vibrational spectra ICTP Preprint IC/94/231 (1994).

105. Yu. A. Kosevich and E. S. Syrkin "The effect of surface stress on the spectrum of low frequency vibrations of thin elastic plate", Ukr. Fiz. Zh. (Kiev) **38**, 888 (1993).

106. Yu. A. Kosevich "Dynamic depinning of 2D electron Wigner crystal at a solid state heterojunction", in *Classical and Quantum Systems - Foundations and Symmetries*, edited by H. D. Doebner, W. Scherer, and F. Shroeck, Jr. (World Scientific, Singapore, 1993), pp. 529-532.

108. Yu. A. Kosevich "Nonlinear envelope-function equation and strongly localized vibrational modes in anharmonic lattices", Phys. Rev. B **48**, E3580 (1993).

109. Yu. A. Kosevich "Nonlinear envelope-function equation and strongly localized vibrational modes in anharmonic lattices", Phys. Rev. B **47**, 3138-3152 (1993).

110. Yu. A. Kosevich "New soliton equation and exotic localized modes in anharmonic lattices", Phys. Lett. A **175**, 466 (1993);

111. Yu. A. Kosevich "New soliton equation and exotic localized modes in anharmonic lattices", Phys. Lett. A **173**, 257-262 (1993).

112. Yu. A. Kosevich "Anomalous absorption of bulk phonons by a two-dimensional transient layer", in *Phonon Scattering in Condensed Matter VII*, edited by M. Meissner and R. O. Pohl (Springer-Verlag, Berlin-Heidelberg, 1993), pp. 419-420.

113. G. Barbero and Yu. A. Kosevich "Spontaneous surface polarization at the liquid crystal-substrate interface", Phys. Lett. A **170**, 41-44 (1992).

114. Yu. A. Kosevich "Localized superconductivity induced by an array of steps at a non-coherent twin boundary", J. Phys.: Condensed Matter **4**, 1555-1558 (1992).

115. Yu. A. Kosevich and E. S. Syrkin "Collective oscillations of twin boundaries in high-temperature superconductors as an acoustic analogue of two-dimensional plasmons", Phys. Rev. B **43**, 326-332 (1991).

116. G. Barbero, Z. Gabbasova, and Yu. A. Kosevich "On a generalization of the Rapini-Papoular expression of the surface free energy for nematic liquid crystals", J. Phys. II *France* **1**, 1505-1513 (1991).

117. V. S. Boiko, A. M. Kosevich, and Yu. A. Kosevich "Effect of reversible plasticity of superconductors on their physical properties (a review)", Fiz. Nizk. Temp. (Kharkov) **17**, 3-32 (1991) [Sov. J. Low Temp. Phys. **17**, 1-18 (1991)].

118. Yu. A. Kosevich "Van der Waals coupled surface waves in nonpiezoelectric crystals and thin films", Phys. Lett. A **155**, 295-298 (1991).

119. Yu. A. Kosevich "Anomalous absorption of an acoustic wave by a two-dimensional adsorbed layer on the surface of a solid", Fiz. Tverd. Tela (St. Petersburg) **33**, 2598-2600 (1991) [Sov. Phys. Solid State **33**, 1467-1468 (1991)].

120. Yu. A. Kosevich and E. S. Syrkin "Resonant interaction of elastic waves with a planar crystal defect", Fiz. Tverd. Tela (Leningrad) **33**, 2053-2056 (1991) [Sov. Phys. Solid State **33**, 1156-1157 (1991)].

121. Yu. A. Kosevich "Nonlinear shear surface waves at the interfaces and planar defects of crystals", Int. J. Engng. Sci. **29**, 327-330 (1991).

122. Yu. A. Kosevich "Total transmission of electromagnetic waves and homogeneous plasma resonance of 2D electron gas in thin semiconductor film", Pis'ma Zh. Eksp. Teor. Fiz. **53**, 143-147 (1991) [JETP Lett. **53**, 150-154 (1991)].

123. Yu. A. Kosevich and E. S. Syrkin "Application of surface acoustic waves to direct

124. Yu. A. Kosevich "Deeply penetrating elastic and coupled surface waves in crystals", Acta Physicae Superficierum (Warsaw) **2**, 47-50 (1990).

125. Yu. A. Kosevich "Nonlinear shear surface waves at interfaces and planar defects of crystals", Phys. Lett. A **146**, 529-534 (1990).

126. Yu. A. Kosevich and E. S. Syrkin "Low frequency acoustic oscillations of twin superstructures in ferroelastics near the phase transition", Ferroelectrics **112**, 155-164 (1990).

127. Yu. A. Kosevich and E. S. Syrkin "Propagation of acoustic waves in bounded ferroelastics near phase transitions", Ferroelectrics **110**, 3-8 (1990).

128. J. C. Granada, A. M. Kosevich, and Yu. A. Kosevich "Magnetoplasma oscillations of the wave-guided type in semiconductor superlattices", J. Phys.: Condensed Matter **2**, 6279-6286 (1990).

129. Yu. A. Kosevich and E. S. Syrkin "Measurement of the parameters of superfluid helium in thin films by means of Love and Gulyaev-Bleustein shear surface waves", Akust. Zh. **36**, 53-57 (1990) [Sov. Phys. Acoust. **36**, 28-30 (1990)].

130. Yu. A. Kosevich "Nonlinear capillary-elastic surface waves at interfaces and plane defects in crystals", Fiz. Tverd. Tela (Leningrad) **32**, 1452-1455 (1990) [Sov. Phys. Solid State **32**, 847-849 (1990)].

131. Yu. A. Kosevich and E. S. Syrkin "Long wavelength surface oscillations of a crystal with an adsorbed monolayer", Phys. Lett. A **135**, 298-302 (1989).

132. Yu. A. Kosevich and E. S. Syrkin "Collective vibrations of phase boundaries in high-temperature superconductors", Fiz. Nizk. Temp. (Kharkov) **15**, 614-620 (1989) [Sov. J. Low Temp. Phys. **15**, 346-349 (1989)].

133. B. E. Vugmeister and Yu. A. Kosevich "Ordering of noncentral ions on the surfaces of strongly polarizable crystals. Localized ferroelectric and piezoelectric behavior", Fiz. Tverd. Tela (Leningrad) **31**, 59-62 (1989) [Sov. Phys. Solid State **31**, 1871-1873 (1989)].

134. Yu. A. Kosevich and E. S. Syrkin "Macroscopic dynamics of a crystal surface with an adsorbed monolayer", Fiz. Tverd. Tela (Leningrad) **31**, 127-134 (1989) [Sov. Phys. Solid State **31**, 1171-1174 (1989)].

135. Yu. A. Kosevich and A. M. Kosevich "On the possibility of measuring the tensor of surface stress in thin crystalline plates", Solid State Commun. **70**, 541-543 (1989).

136. Yu. A. Kosevich "Anomalous damping of low-frequency edge magnetoplasma oscillations in case of quantum Hall effect", Pis'ma Zh. Eksp. Teor. Fiz. **50**, 471-475 (1989) [JETP Lett. **50**, 506-510 (1989)].

137. Yu. A. Kosevich "Electrodynamic properties of interface between media and surface electromagnetic waves on a plane defect of a crystal", Zh. Eksp. Teor. Fiz. **96**, 353-362 (1989) [Sov. Phys. JETP **69**, 200-204 (1989)].

138. Yu. A. Kosevich and E. S. Syrkin "Surface elastic waves in a layer-substrate system as an

139. Yu. A. Kosevich and E. S. Syrkin "Capillary phenomena and elastic vibrations near a plane defect in a crystal. II. Instability of localized waves and formation of macroscopic deformational superlattice structures at a two-dimensional defect", Kristallografiya **33**, 1347-1351 (1988) [Sov. Phys. Crystallogr. **33**, 801-804 (1988)].

140. Yu. A. Kosevich and E. S. Syrkin "Capillary phenomena and elastic vibrations near a plane defect in a crystal. I. Equations of boundary dynamics and properties of long surface waves", Kristallografiya **33**, 1339-1346 (1988) [Sov. Phys. Crystallogr. **33**, 797-801 (1988)].

141. Yu. A. Kosevich and E. S. Syrkin "Surface shear waves in metallic crystals with a finite conductivity in a magnetic field", Akust. Zh. **34**, 879-883 (1988) [Sov. Phys. Acoust. **34**, 509-511 (1988)].

142. Kh. K. Granada, Yu. A. Kosevich, and A. M. Kosevich "Surface magnetoplasma polaritons in an ionic crystal with a two-dimensional electron layer", Pis'ma Zh. Tekh. Fiz. (Leningrad) **14**, 1716-1721 (1988) [Sov. Tech. Phys. Lett. **14**, 747-748 (1988)].

143. Yu. A. Kosevich and E. S. Syrkin "Shear surface waves in conducting elastic media in a magnetic field", Pis'ma Zh. Tekh. Fiz. (Leningrad) **14**, 1375-1379 (1988) [Sov. Tech. Phys. Lett. **14**, 600-601 (1988)].

144. Yu. A. Kosevich and E. S. Syrkin "Conversion of electromagnetic waves into acoustic waves in conducting crystals subjected to a strong magnetic field", Fiz. Tverd. Tela (Leningrad) **30**, 2898-2904 (1988) [Sov. Phys. Solid State **30**, 1672-1675 (1988)].

145. A. M. Kosevich, Yu. A. Kosevich, and J. C. Granada "Magnetoplasma oscillations of a two-dimensional electron layer in a bounded system", Fiz. Nizk. Temp. (Kharkov) **14**, 926-933 (1988) [Sov. J. Low Temp. Phys. **14**, 509-512 (1988)].

146. M. Yu. Kagan and Yu. A. Kosevich "Second sound excitation of Rayleigh and Stonely surface waves at the boundary between solid ^{4}He and He II", Fiz. Nizk. Temp. (Kharkov) **14**, 787-794 (1988) [Sov. J. Low Temp. Phys. **14**, 433-437 (1988)].

147. Yu. A. Kosevich "Magnetohydrodynamic effects in metal crystals in a strong magnetic field", Fiz. Nizk. Temp. (Kharkov) 424-427 (1988) [Sov. J. Low Temp. Phys. **14**, 235-236 (1988)].

148. Yu. A. Kosevich and E. S. Syrkin "The effect of Hall conductivity of a two-dimensional electron layer on the properties of elastic waves propagating near a heterojunction in strong magnetic fields", Fiz. Nizk. Temp. (Kharkov) **14**, 85-89 (1988) [Sov. J. Low Temp. Phys. **14**, 46-48 (1988)].

149. Yu. A. Kosevich, A. M. Kosevich, and J. C. Granada "Magnetoplasma oscillations of a two-dimensional electron layer in a bounded system", Phys. Lett. A **127**, 52-56 (1988).

150. Yu. A. Kosevich and E. S. Syrkin "Low-frequency dynamic phenomena in systems with two-dimensional electron layers in a magnetic field", J. Phys. C: Solid State Phys. **21**, L257-L260 (1988).

151. Yu. A. Kosevich and E. S. Syrkin "Anomalies of surface elastic waves and formation of

152. Yu. A. Kosevich and E. S. Syrkin "Effect of surface distortions on the properties of deeply penetrating Rayleigh and Gulyaev-Bleustein surface waves", Pis'ma Zh. Tekh. Fiz. (Leningrad) **13**, 1439-1442 (1987) [Sov. Tech. Phys. Lett. **13**, 602-603 (1987)].

153. Yu. A. Kosevich and E. S. Syrkin "Instability of longitudinal acoustic phonons in bounded ferroelastics", Fiz. Tverd. Tela (Leningrad) **29**, 617-619 (1987) [Sov. Phys. Solid State **29**, 355-356 (1987)].

154. Yu. A. Kossevich, O. Yu. Serdobol'skaya, and E. S. Syrkin "Surface sound waves in ferroelastics near phase transitions", Ferroelectrics **75**, 409-418 (1987).

155. Yu. A. Kosevich and E. S. Syrkin "Capillary phenomena and elastic waves localized near a plane crystal defect", Phys. Lett. A **122**, 178-182 (1987).

156. Yu. A. Kosevich "Low-frequency dynamics of systems with $2D$ electronic layers in a magnetic field", Pis'ma Zh. Eksp. Teor. Phys. **45**, 493-495 (1987) [JETP Lett. **45**, 630-634 (1987)].

157. Yu. A. Kosevich and E. S. Syrkin "Anomalies of the propagation of elastic waves in plates near the ferroelastic phase transition", Akust. Zh. **33**, 949-950 (1987) [Sov. Phys. Acoust. **33**, 552-553 (1987)].

158. Yu. A. Kosevich and A. V. Chubukov "Fluctuation corrections to the spectra of one- and two-dimensional Heisenberg magnets", Zh. Eksp. Teor. Fiz. **91**, 1105-1120 (1986) [Sov. Phys. JETP **64**, 654-662 (1986)].

159. Yu. A. Kosevich "Magnetic resonance and spin waves in thin layers of superfluid ^{3}He-B", Pis'ma Zh. Eksp. Teor. Fiz. **44**, 250-252 (1986) [JETP Lett. **44**, 321-324 (1986)].

160. Yu. A. Kosevich and A. V. Chubukov "Spin-wave interaction in low-dimensional Heisenberg magnetic materials", Pis'ma Zh. Eksp. Teor. Fiz. **43**, 27-30 (1986) [JETP Lett. **43**, 33-36 (1986)].

161. M. Yu. Kagan and Yu. A. Kosevich "Surface phenomena on the interface of solid and superfluid ^{3}He-^{4}He solutions", Zh. Eksp. Teor. Fiz. **91**, 826-836 (1986) [Sov. Phys. JETP **64**, 487-492 (1986)].

162. Yu. A. Kosevich "Surface second sound and kinetic phenomena on the interface between solid helium and He II below 1K", Zh. Eksp. Teor. Fiz. **90**, 481-497 (1986) [Sov. Phys. JETP **63**, 278-287 (1986)].

163. M. I. Kaganov and Yu. A. Kosevich "Shear surface magnetosound waves caused by piezomagnetic interaction in crystals", Poverkhnost'. Fizika, Khimiya, Mekhanika (Moscow) **8**, 148-150 (1986).

164. Yu. A. Kosevich and E. S. Syrkin "Generalized surface shear waves in piezoelectric crystals", Fiz. Tverd. Tela (Leningrad) **28**, 248-256 (1986) [Sov. Phys. Solid State **28**, 134-139 (1986)].

165. Yu. A. Kosevich and E. S. Syrkin "Existence criterion and properties of deeply penetrating Rayleigh waves in crystals", Zh. Eksp. Teor. Fiz. **89**, 2221-2229 (1985) [Sov. Phys. JETP **62**, 1282-1286 (1985)].

166. A. M. Kosevich, Yu. A. Kosevich, and E. S. Syrkin "Generalized Rayleigh waves and the

167. Yu. A. Kosevich and E. S. Syrkin "Elastic waves in plates of highly anisotropic crystals", Akust. Zh. **31**, 610-614 (1985) [Sov. Phys. Acoust. **31**, 365-367 (1985)].

168. Yu. A. Kosevich "Existence of surface magnetoelectroacoustic waves in crystals", Fiz. Tverd. Tela (Leningrad) **27**, 193-195 (1985) [Sov. Phys. Solid State **27**, 113-114 (1985)].

169. A. M. Kosevich and Yu. A. Kosevich "Interaction of dislocation with crystal surface and emergence of dislocation on surface", in *The Structure and Properties of Crystal Defects*, edited by V. Paider and L. Lejecek (Elsevier, Prague, 1984), pp. 397-405.

170. Yu. A. Kosevich and E. S. Syrkin "Rayleigh and Lamb waves in crystals near phase transitions due to softening of acoustic phonons", Fiz. Tverd. Tela (Leningrad) **26**, 2927-2932 (1984) [Sov. Phys. Solid State **26**, 1769-1772 (1984)].

171. Yu. A. Kosevich and E. S. Syrkin "Macroscopic deformation of layered crystals during first-order phase transitions", Fiz. Tverd. Tela (Leningrad) **25**, 2201-2203 (1983) [Sov. Phys. Solid State **25**, 1268-1269 (1983)].

172. Yu. A. Kosevich and E. S. Syrkin "Low-frequency vibrations of anisotropic films", Fiz. Nizk. Temp. (Kharkov) **9**, 1195-1199 (1983) [Sov. J. Low Temp. Phys. **9**, 616-619 (1983)].

173. A. M. Kosevich and Yu. A. Kosevich "Formation of a step on the surface of a crystal as a result of the emergence of an edge dislocation from the bulk and growth-step motion on the surface of a quantum crystal", Fiz. Nizk. Temp. (Kharkov) **9**, 776 (1983) [Sov. J. Low Temp. Phys. **9**, 402 (1983)].

174. Yu. A. Kosevich and E. S. Syrkin "Surface effects and the specific heat of layered crystals at low temperatures", Fiz. Nizk. Temp. (Kharkov) **9**, 624-629 (1983) [Sov. J. Low Temp. Phys. **9**, 317-320 (1983)].

175. Yu. A. Kosevich "Transverse phonon relaxation in He II below 0.7 °K", Fiz. Nizk. Temp. (Kharkov) **9**, 479-483 (1983) [Sov. J. Low Temp. Phys. **9**, 242-244 (1983)].

176. Yu. A. Kosevich and S. V. Svatko "Possible surface mechanism of dislocation formation during growth of a helium single crystal", Fiz. Nizk. Temp. (Kharkov) **9**, 193-196 (1983) [Sov. J. Low Temp. Phys. **9**, 99-100 (1983)].

177. Yu. A. Kosevich "Formation of a step and interaction of defects on the surface of a crystal", Zh. Eksp. Teor. Fiz. **81**, 2247-2257 (1981) [Sov. Phys. JETP **54**, 1193-1197 (1981)].

178. A. M. Kosevich and Yu. A. Kosevich "On the dispersion relation of crystallization-melting waves on the quantum crystal surface", Physica B **108**, 1195-1196 (1981).

179. A. M. Kosevich and Yu. A. Kosevich "Growth step formed by an edge dislocation emerging on a crystal surface", Fiz. Nizk. Temp. (Kharkov) **7**, 1347-1349 (1981) [Sov. J. Low Temp. Phys. **7**, 655-656 (1981)].

180. A. M. Kosevich and Yu. A. Kosevich "The dispersion law of crystallization-melting waves at a quantum crystal surface", Fiz. Nizk. Temp. (Kharkov) **7**, 809-812 (1981) [Sov. J. Low Temp. Phys. **7**, 394-396 (1981)].

181. A. F. Andreev and Yu. A. Kosevich "Capillary phenomena in the theory of elasticity", Zh. Eksp. Teor. Fiz. **81**, 1435-1443 (1981) [Sov. Phys. JETP **54**, 761-765 (1981)].

183. A. F. Andreev and Yu. A. Kosevich “Kinetic phenomena in semiquantum liquids”, Zh. Eksp. Teor. Fiz. **77**, 2518-2523 (1979) [Sov. Phys. JETP **50**, 1218-1221 (1979)].

184. G. I. Georgiev, Yu. A. Kosevich, and V. M. Tsukernik “Bound state of magnons in a spin chain with "easy-plane"anisotropy”, Zh. Eksp. Teor. Fiz. **75**, 2173-2178 (1978) [Sov. Phys. JETP **48**, 1095-1097 (1978)].

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