

Curriculum vitae

Name Surname Artūras Jukna

Education

Institution	Qualification, academic degree, academic title	Year
Vilnius University	Physicist, teacher. University education	1984
Vilnius University and Lithuania Science Council 1992	Ph.D.	1993
Vilnius Gediminas Technikal University	Assistant professor	2008
Vilnius Gediminas Technical University	Habilitation procedure	2008
Vilnius Gediminas Technical University	Professor	2010

Work experience

Employer	Occupation	Period
Semiconductor Physics Institute	Junior Research Associate	1986-1990
Semiconductor Physics Institute	Research Associate	1990-1996
Semiconductor Physics Institute	Senior Research Associate	2004-2008
Vilnius Gediminas Technical University	Senior Research Associate	2010-2016
Vilnius Gediminas Technical University	Professor	2010-2018

Main publications, monographs, art works, patents

Field of Science	Publications	Year
02P	Steponavičienė Lina, Jukna Artūras, Magnetinių sūkurių koherentinio judėjimo $YBa_2Cu_3O_{7-x}$ superlaidžiuosiuose plonuosiuose sluoksniuose su lazeriu suformuotu II formos sūkurių kanalu tyrimai, sluoksniais tekant srovei $I \sim IC$ // Mokslas - Lietuvos ateitis, Vilnius : Technika. ISSN 2029-2341. T. 3, nr. 6 (2011) p. 105-110	2011
02P	Šulcas Jonas, Jukna Artūras, Stiprios $I \gg IC$ elektros srovės tankio pasiskirstymas plonuose Y-BA-CU-O sluoksniuose, turinčiuose silnojo superlaidumo sritis // Mokslas - Lietuvos ateitis, Vilnius : Technika. ISSN 2029-2341. T. 3, nr. 6 (2011) p. 101-104	2011
02P	Šulcas Jonas, Steponavičienė Lina, Jukna Artūras, Jung Gzergoz, Plaušinitienė Valentina, Abrutis Adulfas, Maneikis Andrius, Gong M., Sobolewski Roman, Current distribution in Y–Ba–Cu–O superconducting microbridges containing Pi-Shaped channel for	2011

	easy vortex motion // Acta Physica Polonica A. 14th International Symposium on Ultrafast Phenomena in Semiconductors. Vilnius, Lithuania, August 23-25, 2010, Warszawa : Polish Academy of Sciences.. ISSN 0587-4246. Vol. 119, no. 2 (2011) p. 183-185	
02P	Steponavičienė Lina, Šulcas Jonas, Jukna Artūras, Jung Gzergoz., Plaušinitienė Valentina, Abrutis Adulfas, Maneikis Andrius., Gong M., Sobolewski Roman, Investigation of vortex density in laser-written Pi-Shaped channel of YBCO bridge by means of I-V dependences // Acta Physica Polonica A. 14th International Symposium on Ultrafast Phenomena in Semiconductors. Vilnius, Lithuania, August 23-25, 2010, Warszawa : Polish Academy of Sciences.. ISSN 0587-4246. Vol. 119, no. 2 (2011) p. 180-182	2011
02P	Steponavičienė Lina, Šulcas Jonas, Jukna Artūras, Plaušinitienė Valentina, Abrutis Adulfas, Gong Mufei, Sobolewski Roman, Investigation of density and velocity of Abrikosov vortices in YBa ₂ Cu ₃ O _{7-x} superconducting thin films with a laser-written channel for easy vortex motion // Materials science, Kaunas : Technologija. ISSN 1392-1320. Vol. 17, no. 2 (2011) p. 180-185	2011
02P, 03P, 08T	Jukna Artūras, Steponavičienė Lina, Plaušinitienė Valentina, Abrutis Adulfas, Maneikis Andrius, Šliužienė Kristina, Lisauskas Vaclovas, Sobolewski Roman, Coherent magnetic vortex motion in optically formed channels for easy flow in YBa ₂ Cu ₃ O _{7-2x} superconducting thin films // Applied Physics B. Lasers and Optics, Berlin : Springer. ISSN 0946-2171. Vol. 113, iss. 3 (2013) p. 327-332	2013
02P, 08T	Gradauskas Jonas, Jukna Artūras, Šulcas Jonas, Sužiedėlis Algirdas, Abrutis Adulfas, Lisauskas Vaclovas, Maneikis Andrius, Šliužienė Kristina, Microwave detection properties of asymmetrically narrowed YBa ₂ Cu ₃ O _{7-x} structures // Materials science, Kaunas : Technologija. ISSN 1392-1320. Vol. 20, no. 2 (2014) p. 210-214	2014
02P	Jukna Artūras, Steponavičienė Lina, Maneikis Andrius, Abrutis Adulfas, Lisauskas Vaclovas, Šliužienė Kristina, Sobolewski Roman, Investigation of optically modified YBa ₂ Cu ₃ O _{7-x} films by means of X-ray microanalysis technique // Materials science, Kaunas : Technologija. ISSN 1392-1320. Vol. 20, no. 2 (2014) p. 215-219	2014
02P, 06T	Jukna Artūras, Miškinis Paulius, Vasiliauskienė Vaida, Bogdanovičius Aleksejus, The electromotive force dependence on the polycrystalline silicon solar cell illuminance // Acta Physica Polonica A, Warszawa : Polish Academy of Sciences. ISSN 0587-4246. Vol. 127, no. 6 (2015) p. 1711-1716	2015
02P	Jukna, A.; Stupakova, J.; Vasiliauskiene, V.; Miškinis, P.; Gradauskas J.; Suziedelis, A.; Maneikis, A.; Sliuziene, K.; Sobolewski, R. 2017. Electric properties of Y-Ba-Cu-O micro-diodes based on asymmetrically narrowed mesas. Proc. of 12th IEEE Int. Conf. on Nano/Micro Engineered and Molecular Systems. April 9-12, Los Angeles, USA: 155-159.	2017
02P	Akbas, Y.; Plecenik, T.; Durina, P.; Plecenic, A., Jukna, A.; Wick, G.; Sobolewski, R. 2017. Ultra-high optical responsivity of semiconducting asymmetric nanochannel diodes for photon detection. Proc. of SPIE 10229: 102290N-1-6.	2017
02P	Laima, Sigitas; Bytautaitė, Jana; Chmieliauskas, Sigitas; Fomin, Dmitrij; Jasulaitis, Algimantas; Jukna, Arturas, Mažeikienė Sandra, Stasiuniene, Jurgita; Critical evaluation of metalization in electric injury // American journal of forensic medicine and pathology: Wolters Kluwer Health, Inc. ISSN 0195-7910. eISSN 1533-404X. 2017, first on line, [p. 1-3]. DOI:	2017

	10.1097/PAF,0000000000000335. [Scopus; BIOSIS Previews; Embase; MEDLINE; Science Citation Index Expanded (Web of Science)] [IF: 0,648 (2016, SCIE)] {Aut. ind. 0,125}	
02P	Jukna, A.; Gradauskas, J.; Suziedelis, A.; Maneikis, A.; Sliuziene, K.; Sobolewski, R. 2017. Investigation of the I-V characteristics asymmetry in semiconducting Y-VBa-Cu-O diodes. Micro & Nano Lett. 12(11): 838-842. (DOI: 10.1049/mnl.2017.0268).	2017

Main methodological works

Year	Title
2011	Astrauskienė Nijolė, Jukna Artūras, Mechanics and Thermodynamics; ISBN 9786094570049 (2011), [psl.: 227], [aut. lankų.: 13,41]

Participation in conferences

Date	Title of the conference and speech title
2001-01-01	Bumelienė Skaidra, Ašmontas Steponas, Gradauskas Jonas, Jukna Artūras, Paršeliūnas Jonas, Seliuta Dalius, Sužiedėlis Algirdas, Valušis Gintaras, CO2 laser radiation detection in compensated germanium // Proceedings of SPIE: Nonresonant laser-matter interaction (NLMI-10), 21-23 August 2000, St. Petersburg-Pushkin, Russia, SPIE-INT Soc Optical Engineering, Bellingham, USA, 2001 p. 87-90. [Duomenų bazės:]
2012-01-01	Anisimovas Fiodoras, Ašmontas Steponas, Gradauskas Jonas, Jukna Artūras, Kiprijanovič Oleg, Vengalis Bonifacas, Highly resistive states in polycrystalline La _{0.67} Ca _{0.33} MnO ₃ thin films // Radiation interaction with material and its use in technologies 2012, Kaunas : Technologija, 2012 p. 161-164. [Duomenų bazės: Computers & Applied Sciences Complete]
2012-01-01	Jukna Artūras, Gradauskas Jonas, Šulcas Jonas, Sužiedėlis Algirdas, Nargelienė Viktorija, Abrutis Adulfas, Lisauskas Vaclovas, Šliužienė Kristina, New microwave detector based on YB ₂ CU ₃ O _{7-x} superconductor structure // Radiation interaction with material and its use in technologies 2012, Kaunas : Technologija, 2012 p. 189-192. [Duomenų bazės: Computers & Applied Sciences Complete]
2013-01-01	Jukna Artūras, Gradauskas Jonas, Sužiedėlis Algirdas, Abrutis Adulfas, Nargelienė Viktorija, Šulcas Jonas, Lisauskas Vaclovas, Šliužienė Kristina, Electric properties of asymmetrically narrowed superconducting detectors // Intelligent Technologies in Logistics and Mechatronics Systems, ITELMS'2013, Kaunas : Technologija, 2013 p. 98-102. [Duomenų bazės: Conference Proceedings Citation Index]
2014-01-01	Šatkovskis Eugenijus, Zagadskij Viktor, Jukna Artūras, Stupakova Jolanta, Ripples formation on the silicon solar cells surface by laser irradiation // Intelligent Technologies in Logistics and Mechatronics Systems ITELMS'2014, Kaunas : Technologija, 2014 p. 217-220
2014-01-01	Šatkovskis Eugenijus, Zagadskij Viktor, Jukna Artūras, Boris Renata, Antonovič Valentin, Stupakova Jolanta, Mitkevičius Ramūnas, Baradinskaitė Asta, Kerienė Jadvyga Regina, Formation of surface morphology of silicon solar cells by means of two-step photo-electrochemical etching and their characterization // Eighth International Conference on Advanced Optical Materials and Devices (AOMD-8), Riga, Latvia, August 25, 2014, Riga, Latvia : SPIE, 2014 p. [1-4]. [Duomenų bazės: Conference Proceedings Citation Index]

2015-01-01	Šatkovskis Eugenijus, Jukna Artūras, Zagadskij Viktor, Stupakova Jolanta, Mitkevičius Ramūnas, Spectral peculiarities of mono-crystalline silicon solar cells modified by two- stage photo-anodizing process // Intelligent Technologies in Logistics and Mechatronics Systems ITELMS'2015, Kaunas : Technologija, 2015 p. 219-223
2016-04-12	A. Jukna, L. Steponavičienė, J. Šulcas, J. Gradauskas, J. Stupakova B. Vengalis, G. Grigaliūnaitė-Vonsevičienė, Roman Sobolewski. Motion of Magnetic Vortices Confined in Optically Formed Channels of YBa ₂ Cu ₃ O _{7-x} Thin Films. Probing Superconductivity at the nanoscale: New advances (COST MP-1201 NanoSC Workshop), April 12-15, 2016 Saas-Fee, Switzerland.
2017-04-09	A. Jukna, J. Gradauskas, A. Sužiedėlis, A. Maneikis, K. Šliužienė, J. Stupakova, V. Vasiliauskienė, P. Miškinis, and Roman Sobolewski. IEEE-NEMS 2017 Conference, 9-12 April 2017, UCLA Meyer & Renee Luskin Conference Center, Los Angeles, California, USA (oral presentation).

Foreign languages	A1/2: beginner; B1/2: advanced user; C1/2: proficient user;		
	Speaking	Understanding	Writing
English	C2	C2	C2
russian	C2	C2	C2

Teaching subjects

Level of studies	Subject title
Master Degree Studies	Origin of Light and its Interaction with Materials
Master Degree Studies	Semiconductors. Semiconductor Technology
Master Degree Studies	Master Graduation Thesis 1
Bachelor Degree Studies	Physics 1
Bachelor Degree Studies	Physics
Bachelor Degree Studies	Physics 2
Bachelor Degree Studies	Applied Physics

Improvement of qualification (internships, lasting more than two weeks, trainings, seminars, not less than 8

Institution	Country	Subject	Period
University of Rochester, Rochester NY	USA	The investigation of light interaction with superconducting materials (Fulbright scholarship)	2002-2003

University of Rochester, Rochester NY	USA	Investigation of optical properties of the superconducting thin films (Fulbright Alumni program funded by Lithuania Ministry of Education and Science)	2009-2009
University of Rochester	USA	Investiture of title of adjunct professor and discussions on possible collaboration between VGTU and University of Rochester regarding joint Ph.D. programs and to complete tasks of scientific research	2012-2012
University of Rochester	USA	Investiture of title of adjunct professor and discussions on possible collaboration between VGTU and University of Rochester regarding joint Ph.D. programs and to complete tasks of scientific research. (BAFF scholar)	2012-2012
University of Rochester, Rochester NY	USA	Artificial structures formation in the superconducting thin films by means of focused laser beam	2014-2014
University of Rochester	USA	Optical absorption of carbon nanotubes in THz frequency range, investigation of asymmetric current-voltage dependences of asymmetrically shaped semiconductor devices.	2016-2017

Participation in projects

Period	Project description
2009-2009	Investigation of superconducting single photon detectors and motion of magnetic Abrikosov vortices in superconducting channels for easy vortex motion. Project acronym: SSPD EasyVortexFlow, No. SUT-462, Physics F300 (Physics 02P). Funding: 3657 eur.
2012-2012	Investigation of asymmetrically-shaped YBaCuO superconducting sensors of high frequency signals, -, Contr. No. PRO-13/2012, beginning/ending: 2012-11-02 / 2013-07-31 (Other participants from VGTU: Gradauskas Jonas, Ph.D. student Jonas Šulcas), 2013 m., Input: 0,50, Project funds: 2 670,47 LTL
2013-2013	Investigation of asymmetrically-shaped YBaCuO superconducting sensors of high frequency signals, -, Contr. No. PRO-13/2012, beginning/ending: 2012-11-02 / 2013-07-31 (Other participants from VGTU: Gradauskas Jonas, Ph.D. student Jonas Šulcas), 2013 m., Input: 0,50, Project funds: 9 435,65 LTL
2013-2014	Materials and Technologies for solar cells and sensors. Project code: VP1-3.1-ŠMM-08-K-01-009. Project start date 2012-08-14, end date 2015-08-13. FTMC agreement with the European Social Fund Agency, reg. No. 4100-SF22, 2012-08-14. The project activities/tasks: - to adapt electroluminescence control system for testing of laboratory samples of solar cells/panels; -To create a methodic of comparison of standard solar cells/panels with laboratory based samples and to apply it for solar cells/panels prepared by the project partners; - To develop methodic for investigation of inorganic solar cells/panels by means of electroluminescence control system and to apply it for determination of efficiency of PV devices prepared by the project partners.

Membership in international organizations, committees, expert activity, participation in editorial boards

Period	Title
2016-2017	EU COST program expert.
2017-2020	Panel member of Sensors and Electronics Technology (SET) Panel. Principle National Board Member - NATO expert in Lithuania.
2017-2017	Referee of scientific projects of EMPIR Call 2017, Fundamental Metrology (FUN) of EU programme EURAMET.