Artak Ara Avetisyan

Կոնդենսացված վիճակի ֆիզիկայի կենտրոն
Պինդ մարմնի ֆիզիկայի լաբորատորիա
Senior Researcher

Research Institute of Physics
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Senior Researcher

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Education

Institution	Yerevan State University
Faculty	Physics
Date	1997 - 2000
Degree name	PhD student

Institution	Yerevan State University
Faculty	Physics
Date	1992 - 1997
Degree name	Qualified specialist

Scientific Rank/degree

Institution	Yerevan State University
Date	2000
Degree name	Candidate
Scientific Supervisor	Kazaryan Eduard Mushegh
Research Topic	The influence of nonparabolicity on impurity states

Language skills

Հայերեն Русский English Ελληνικά Deutsch

Work experience

Institution	Yerevan State University
Period of time	2010 till now
Rank/degree	Senior Researcher

Institution	Antwerp University

Period of time	2008 - 2010
Rank/degree	researcher

Institution	Yerevan State University
Period of time	2005 - 2008
Rank/degree	researcher

Institution	Cyprus University
Period of time	2003 - 2005
Rank/degree	researcher

Institution	Yerevan State University
Period of time	2002 - 2003
Rank/degree	researcher

Institution	Bremen University
Period of time	2001 - 2002
Rank/degree	researcher

Institution	Yerevan State University
Period of time	1998 - 2001
Rank/degree	researcher

Participation in international conferences and seminars

15/09/2023 - 20/09/2023	laser physics IRF Armenia

Other information

Graduated from Yerevan State University in 1997.

Publications

Article

Coherent control of quantum states by quadratically chirped short laser pulses
G. P. Djotyan, A. A. Avetisyan, A. P. Djotyan

Physical review. A/Physical review, A 2026 043128

https://doi.org/10.1103/wfp1-m3m3

Article

Reversible Generation of Coherence between Metastable Quantum States Using Laser Pulses

with Quadratic Frequency Chirp [Обратимая генерация когерентности между метастабильными квантовыми состояниями с использованием лазерных импульсов с квадратичным ча...
G. P. Djotyan, A. A. Avetisyan, A. P. Djotyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2026 21 - 27

https://doi.org/10.1134/s1068337226700337

Article

Shallow donor states and interlevel transitions in gapped graphene bilayers
A .P. Djotyan, K. Moulopoulos, A.A. Avetisyan

Semiconductor Science and Technology 2025 015012

Article

Coherent Control of a Shallow Impurity Quantum States in Graphene Monolayer by Bichromatic Phase Modulated Laser Pulses: Influence of Relaxation Processes[Когерентное управление квантовыми состояниями мелкой примеси в монослое графена с помощью фазомод...
A.A. Avetisyan, A.P. Djotyan, G.P. Djotyan, A.L.Vartanian, A.L. Asatryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2025 42-49

Article

Comparative study on polaronic quantum confinement effects in wurtzite ZnO and GaN nanowires under external fields
Anna Asatryan, Arshak Vartanian, Serob Hayrapetyan, Tigran Ghukasyan, Artak Avetisyan, Ya-Hong Xie

Results in Physics 2025 108535

Article

Experimental Study of Nonequilibrium Coherent Electron Transport with Solid-State NIS Interferometers
A. S. Gurskiy, D. L. Shapovalov, E. Ph. Pozdnyakova, V. A. Ievleva, A. M. Chekushkin, M. A. Markina,

M. A. Tarasov, D. E. Presnov, V. A. Krupenin, I. V. Sapkov, A. A. Avetisyan, K. Yu. Arutyunov

The Physics of Metals and Metallography 2025 1467 - 1471

https://doi.org/10.1134/s0031918x25602100

Article

Optical Transitions 1S–2Px between Lowest States of a Shallow Impurity in Graphene Monolayer [Оптические переходы 1S–2Px между уровнями мелкой примеси в монослойном графене]
A. P. Djotyan, A. A. Avetisyan

Proceedings of NAS RA Physics 2024 165–171

Article

Hydrogen-Like Impurity States in Doped Bilayer Graphene: Results for Different Trial Functions [Водороподобные примесные состояния в легированном двухслойном графене: результаты для различных пробных функций]
A.A. Avetisyan, K. Moulopoulos, A.P. Djotyan

Proceedings of NAS RA Physics 2024 265 - 271

Article

Coherent Control of Lowest States of a Shallow Impurity in Graphene Monolayer by Phase

Modulated Laser Pulses [Когерентный контроль наинизших уровней мелкой примеси в монослойном графене с помощью модулированных по фазе лазерных импульсов]
A. P. Djotyan, G. P. Djotyan, A. A. Avetisyan

Proceedings of NAS RA Physics 2024 272 - 278

Article

The Energy Levels of a Shallow Impurity in Monolayer Graphene in a Perpendicular Magnetic Field [Энергетические уровни мелкой примеси в монослойном графене в перпендикулярном магнитном поле]
A. A. Avetisyan, A.P. Djotyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2024 386-390

Article

Coulomb Interaction in Graphene Systems
A. A. Avetisyan, A. P. Djotyan

Physics of Particles and Nuclei 2023 997-1001

Article

Impurity states in gated graphene systems in a magnetic field
A. A. Avetisyan, A. P. Djotyan

International Conference on Microwave & THz Technologies, Wireless Communications and OptoElectronics (IRPhE 2022)
2023 46-48

Article

Interaction of Electromagnetic Field with Gated Graphene Bilayer
A. P. Djotyan, A. A. Avetisyan, K. Moulopoulos

Armenian Journal of Physics 2019 33-39

Article

Impurity States in Gated Graphene Bilayer in a Magnetic Field
A.A. Avetisyan, A.P. Djotyan

Armenian Journal of Physics 2019 248-253

Article

Tunable Excitons in Bilayer Graphene with Opened Energy Gap
A. A. Avetisyan, A. P. Djotyan, K. Moulopoulos

Physics of Atomic Nuclei 2018 799-803

Article

Nonlinear Properties of Gated Graphene in a Strong Electromagnetic Field
A.P. Djotyan, A.A.Avetisyan, K.Moulopoulos

Physics of Atomic Nuclei 2017 307-314

http://link.springer.com/journal/11450

Article

EXCITONIC ABSORPTION IN GAPPED GRAPHENE SYSTEMS
A.P.Djotyan, A.A.Avetisyan

Proceedings of the YSU A Physical and Mathematical Sciences 2017 93-96

http://www.ysu.am/science/en/journals

Article

Tunable excitons in gated graphene systems
A.A. Avetisyan, A.A.Djotyan, K.Moulopoulos

Proceedings of SPIE-Progress in Biomedical Optics and Imaging 2017 1-11

http://spie.org/publications/conference-proceedings

Conference

Tunable excitonic absorption in gapped graphene systems
A. Avetisyan, A. Djotyan, K. Moulopoulos

2017 37-38

http://ipr.sci.am/plugin.php?plugin=conferences&id=16&offset=1

Conference

Nonlinear response and tunable excitonic absorption in gapped graphene systems
Konstantinos Moulopoulos, Artak A. Avetisyan, Anahit P. Djotyan

2017 188

http://www.grapheneconf.com/2017/

Conference

Excitonic absorption in gated graphene systems
Artak A. Avetisyan, Anahit P. Djotyan, Konstantinos Moulopoulos

2016 105

http://rau.am/optics2016/

Conference

COHERENT RESPONSE OF MULTILAYER GRAPHENE SYSTEMS TO LASER RADIATION: NONLINEAR EFFECTS AND MANY ELECTRON CORRELATIONS
Artak Avetisyan, Djotyan Anahit

2015 38-39

http://sfm.eventry.org/symposium2015/photonics/preliminary

Conference

Nonlinear optical properties of gated graphene systems
Artak Avetisyan, Djotyan Anahit

2015 10

http://ipr.sci.am/plugin.php?plugin=conferences&id=15