

# Misha Arthur Aghamalyan

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## Research Institute of Physics

Computational Materials Science Laboratory  
Researcher

## Education

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics chair of semiconductor physics and microelectronics
<b>Date</b>	2020 - 2022
<b>Degree name</b>	PhD student

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics
<b>Date</b>	2018 - 2020
<b>Degree name</b>	Masters

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics
<b>Date</b>	2014 - 2018
<b>Degree name</b>	Bachelor

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## Scientific Rank/degree

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<b>Institution</b>	Yerevan State University
<b>Date</b>	2022
<b>Degree name</b>	Candidate
<b>Specialty</b>	Physico-mathematical sciences
<b>Scientific Supervisor</b>	Vladimir M. Aroutiounian
<b>Research Topic</b>	Computational search for novel 2D transitional metal chalcogenides and investigation of their properties for applications in semiconductor devices

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## Language skills

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Հայերեն Русский English

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## Work experience

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<b>Institution</b>	Yerevan State University
<b>Period of time</b>	2021 till now

**Rank/degree** Junior research Scientist

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**Institution** Gate42 quantum computing lab

**Period of time** 2019 - 2020

**Rank/degree** Research scientist

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## Scientific interests

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- Computational chemistry, computational materials science, advanced materials for energy conversion and storage applications, solid-state electrolytes, catalysis, gas sensing, semiconductor devices
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## Publications

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*Article*

**Computational Design of Gas Sensors Based on V3S4 Monolayer**

Hayk A. Zakaryan, Misha A. Aghamalyan, Yevgeni Sh. Mamasakhlisov, Ilya V. Chepkasov,

Ekaterina V. Sukhanova, Alexander G. Kvashnin, Anton M. Manakhov, Zakhar I Popov,

Dmitry G. Kvashnin

Nanomaterials 2022 774

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*Article*

**2D-Mo3S4 phase as promising contact for MoS2**

H.A. Zakaryan, M.A. Aghamalyan, E.V. Sukhanova, A.G. Kvashnin, L.A. Bereznikova, D.G. Kvashnin,

Z.I. Popov

Applied Surface Science 2022 152971

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*Article*

**Adsorption of Hydrogen Peroxide on Two-Dimensional Transition Metal Chalcogenides**

M. A. Aghamalyan, V. M. Aroutiounian, E. S. Mamasakhlisov, E. V. Sukhanova, A. G. Kvashnin, Z. I. Popov,

A. A. Zakaryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 170-173

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*Article*

**Investigation of Carbon Dioxide Interaction with Transition Metal Dichalcogenides by First Principles**

M. A. Aghamalyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 166-169

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*Article*

**Map of Two-Dimensional Tungsten Chalcogenide Compounds (W-S, W-Se, W-Te) Based on USPEX Evolutionary Search**

E. V. Sukhanova, A. G. Kvashnin, M. A. Agamalyan, H. A. Zakaryan, Z. I. Popov

JETP Letters 2022 292-296

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*Article*

**First-Principles Study of the Interaction of H<sub>2</sub>O<sub>2</sub> with the SnO<sub>2</sub> (110) Surface**

M. A. Aghamalyan, A. A. Hunanyan, V. M. Aroutiounian, M. S. Aleksanyan, A. G. Sayunts, H. A. Zakaryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 235-239

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