

# Artak Garegin Sayunts

✉ sayuntsartak@ysu.am

   R<sup>6</sup>

## Research Institute of Physics

Center for Semiconductor Devices and Nanotechnologies

Senior researcher

## Education

---

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics / Department of Physics of Semiconductors and Microelectronics
<b>Date</b>	2013 - 2016
<b>Degree name</b>	PhD student

---

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics / Department of Physics of Semiconductors and Microelectronics
<b>Date</b>	2011 - 2013
<b>Degree name</b>	Masters

---

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Faculty of Radiophysics
<b>Date</b>	2007 - 2011
<b>Degree name</b>	Bachelor

---

## Scientific Rank/degree

---

<b>Institution</b>	Yerevan State University
<b>Date</b>	2016
<b>Degree name</b>	Candidate
<b>Specialty</b>	Technical sciences
<b>Scientific Supervisor</b>	V.M. Aroutiounian
<b>Research Topic</b>	Study of semiconductor gas sensors

---

## Language skills

---

Հայերեն English Русский

---

## Work experience

---

<b>Institution</b>	Department of Physics of Semiconductors and Microelectronics, YSU
--------------------	---

**Period of time** 2021 till now  
**Rank/degree** Head of Educational Laboratory

---

**Institution** Center of Semiconductor Devices and Nanotechnologies, YSU  
**Period of time** 2013 till now  
**Rank/degree** Research scientist

---

## Participation in international conferences and seminars

---

**08/05/2023 - 11/05/2023** Sensor and Measurement Science International (SMSI 2023)  
Germany

---

**24/08/2022 - 26/08/2022** Measurement, Sensor Systems and Applications Conference (MeSSAC 2022)  
Online and On-demand  
China

---

**21/11/2020 - 25/11/2020** The Fifth International Conference on Advances in Sensors, Actuators, Metering and Sensing (ALLSENSORS 2020)  
Spain

---

**19/09/2018 - 21/09/2018** 4th International Conference on Sensors Engineering and Electronics Instrumentation Advances (SEIA' 2018)  
Netherlands (the)

---

**23/06/2017 - 25/06/2017** The 11th Int. Conference on Semiconductor Micro- and Nanoelectronics (ICSMN 2017)  
Armenia

---

**19/03/2017 - 23/03/2017** Second Intern. Conf. on Advances in Sensors, Actuators, Metering and Sensing (ALLSENSORS 2017)  
France

---

**30/05/2017 - 01/06/2017** The 18th Int. Conference on Sensors and Measurement Technology (AMA Conferences - SENSOR 2017)  
Germany

---

## Publications

---

*Article*

### **SnO<sub>2</sub>/MWCNTs Nanostructured Material for High-Performance Acetone and Ethanol Gas Sensors**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov, Emma Khachatryan, Rima Papovyan, Alena Michalcová, Dušan Kopecký

ACS Omega 2025 7283-7294

---

Article

**Study of a Nanostructured Co-Doped SnO<sub>2</sub> Sensor for Hydrogen Peroxide Vapor Detection Using Impedance Spectroscopy**

Gohar Shahnazaryan, Mikayel Aleksanyan, Artak Sayunts, Zarine Simonyan, Rima Papovyan,

Gevorg Shahkhatuni

ACS Omega 2025 14452 - 14465

---

Article

**Fabrication and Characterization of MWCNTs Decorated ZnO Nanograins Based Sensor for Enhanced Performance Toward CO<sub>2</sub> Gas**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,

Rima Papovyan, Dušan Kopecký

Advanced Materials Interfaces 2025 2500185

---

Article

**Highly Sensitive Ammonia Gas Sensor Based on MWCNTs Saturated Fe<sub>2</sub>O<sub>3</sub> Nanograins**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,

Andranik Grigoryan, Rima Papovyan, Dušan Kopecký

Langmuir 2025 26614–26627

---

Article

**Influence of the Growth Parameters on RF-Sputtered CNTs and Their Temperature-Selective Application in Gas Sensors**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,

Rima Papovyan, Dušan Kopecký

ACS Omega 2025 34733–34746

---

Article

**MWCNTs/Fe<sub>2</sub>O<sub>3</sub>:ZnO Nanocomposite Material for Chemoresistive Sensing of Hydrogen Peroxide Vapors**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,

Hayk Kasparyan, Dušan Kopecky

ACS Applied Electronic Materials 2024 940-949

---

Article

**Fabrication of the Fe<sub>2</sub>O<sub>3</sub>:ZnO Based Nanostructured Sensor for LPG Detection**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Gohar Shahnazaryan, Zarine Simonyan,

Davit Kananov

e-Journal of Surface Science and Nanotechnology 2024 149-156

---

Article

**Fabrication and characterization of highly responsive hydrogen sensor based on Fe<sub>2</sub>O<sub>3</sub>:ZnO nanostructured thin film**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Gohar Shahnazaryan,

Vladimir Aroutiounian

Measurement: Sensors 2024 100984

---

Article

**Acetone Vapors Detection Using a MWCNTs/SnO<sub>2</sub> Nanocomposite Material**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,  
Emma Khachatryan, Dušan Kopecký  
ACS Applied Electronic Materials 2024 4090–4098

---

*Article*

**Flexible Gas Sensor Based on the RF-Grown Fe<sub>2</sub>O<sub>3</sub>:ZnO/CNTs Material for Propylene Glycol Vapor Detection**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Davit Kananov,  
Alena Michalcová, Lukáš Koláčný, Dušan Kopecký  
ACS Applied Electronic Materials 2024 6893–6904

---

*Article*

**Room Temperature Detection of Hydrogen Peroxide Vapor by Fe<sub>2</sub>O<sub>3</sub>:ZnO Nanograins**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Hayk Kasparyan,  
Dušan Kopecký  
Nanomaterials 2023 120

---

*Article*

**Detection of hydrogen peroxide vapor using flexible gas sensor based on SnO<sub>2</sub> nanoparticles decorated with multi-walled carbon nanotubes**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Vladimir Aroutiounian,  
Emma Khachatryan  
Advances in Natural Sciences: Nanoscience and Nanotechnology 2023 025001

---

*Article*

**Growth, Characterization, and Application of Vertically Aligned Carbon Nanotubes Using the RF-Magnetron Sputtering Method**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Hayk Kasparyan,  
Dušan Kopecký  
ACS Omega 2023 20949-20958

---

*Article*

**Investigation of the MWCNT/SnO<sub>2</sub> Sensor for the Detection of Acetone Vapors**

M. S. Aleksanyan, G. H. Shahkhatuni, E. A. Khachatryan, G. E. Shahnazaryan, A. G. Sayunts,  
H. R. Hovhannisyan, D. A. Kananov  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 67-72

---

*Article*

**Flexible SnO<sub>2</sub> (Co)/MWCNT Sensor for Detection Low Concentrations of Hydrogen Peroxide Vapors**

M. S. Aleksanyan, A. G. Sayunts, G. H. Shahkhatuni, Z. G. Simonyan, V. M. Aroutiounian,  
G. E. Shahnazaryan  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 133-139

---

*Article*

**Use of Nanostructured Fe<sub>2</sub>O<sub>3</sub>:ZnO Film for Detection of Hydrogen**

M. S. Aleksanyan, A. G. Sayunts, G. H. Shahkhatuni, Z. G. Simonyan, G. E. Shahnazaryan,  
V. M. Aroutiounian  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 140-145

---

Article

**Investigations of the Impedance Characteristics of a Nanostructured ZnO(La) Sensor for Hydrogen Peroxide Vapors**

G.E. Shahnazaryan, G.A. Shahkhatuni, M.S. Aleksanyan, Z.G. Simonyan, V.M. Aroutiounian, A.G. Sayunts  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 254-262

---

Article

**Gas Sensor Based on ZnO Nanostructured Film for the Detection of Ethanol Vapor**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Gohar Shahnazaryan,  
Vladimir Aroutiounian  
Chemosensors 2022 245/17

---

Article

**Flexible sensor based on multi-walled carbon nanotube-SnO<sub>2</sub> nanocomposite material for hydrogen detection**

Mikayel S Aleksanyan, Artak G Sayunts, Gevorg H Shahkhatuni, Zarine G Simonyan,  
Vladimir M Aroutiounian, Gohar E Shahnazaryan  
Advances in Natural Sciences: Nanoscience and Nanotechnology 2022 035003

---

Article

**Study of Gas Sensitivity of SnO<sub>2</sub> (Nb) Film in Liquefied Petroleum Gas**

M. S. Aleksanyan, A. G. Sayunts, G. H. Shahkhatuni, G. E. Shahnazaryan, V. M. Aroutiounian  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 139-145

---

Article

**Influence of Ultraviolet Rays on Sensitivity of Sensors for Acetone Vapor Detection**

M. S. Aleksanyan, A. G. Sayunts, V. M. Aroutiounian, G. E. Shahnazaryan, G. H. Shahkhatuni  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 109-116

---

Article

**Cobalt Doped SnO<sub>2</sub> Thin Film for Detection of Vapor Phase Hydrogen Peroxide**

M.S. Aleksanyan, V.M. Aroutiounian, G.E. Shahnazaryan, A.G. Sayunts  
Armenian Journal of Physics 2021 8-18

---

Article

**Study of MWCNT / SnO<sub>2</sub>/Ru thick-film sensors for detecting the presence of certain harmful gases in air**

Z.N. Adamyan, A.G. Sayunts, E.A. Khachaturyan, V.M. Aroutiounian  
Armenian Journal of Physics 2021 49-73

---

Article

**Tin Oxide/Carbon Nanotube Nanocomposite Sensors for Some Toxic VOCs Detection**

Z.N. Adamyan, A.G. Sayunts, E.A. Khachaturyan, V.M. Aroutiounian  
South Florida Journal of Development 2021 1067-1093

---

Article

**Influence of UV Rays on the Volt-Capacity Characteristic of SnO<sub>2</sub>:Co Sensor of Vapors of Hydrogen Peroxide**

M. S. Aleksanyan, A. G. Sayunts, A. A. Zakaryan, V. M. Aroutiounian, V. M. Arakelyan, G. E. Shahnazaryan  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 151-156

---

Article

**Investigations of Sensors for Detection of Hydrogen Peroxide Vapors under the Influence of UV Illumination**

M. S. Aleksanyan, A. G. Sayunts, A. A. Zakaryan, V. M. Harutyunyan, V. M. Arakelyan,

G. E. Shakhnazaryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 205-212

---

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

---

Article

**ВЛИЯНИЕ УЛЬТРАФИОЛЕТОВЫХ ЛУЧЕЙ НА ВОЛЬТ- ЕМКОСТНУЮ ХАРАКТЕРИСТИКУ SnO<sub>2</sub>:Co СЕНСОРА ПАРОВ ПЕРЕКИСИ ВОДОРОДА**

М.С. АЛЕКСАНИЯН, А.Г. САЮНЦ, А.А. ЗАКАРЯН, В.М. АРУТЮНЯН, В.М. АРАКЕЛЯН, Г.Э. ШАХНАЗАРЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2020

218-227

---

Article

**ИССЛЕДОВАНИЕ СЕНСОРА ДЛЯ ОБНАРУЖЕНИЯ ПАРОВ ПЕРЕКИСИ ВОДОРОДА ПОД ДЕЙСТВИЕМ УЛЬТРАФИОЛЕТОВОГО ИЗЛУЧЕНИЯ**

М.С. АЛЕКСАНИЯН, А.Г. САЮНЦ, А.А. ЗАКАРЯН, В.М. АРУТЮНЯН, В.М. АРАКЕЛЯН, Г.Э. ШАХНАЗАРЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2020

312-324

---

Article

**Effects of UV Irradiation on the Sensing Properties of Co-doped SnO<sub>2</sub> Thin Film for Ethanol Detection**

Mikayel Aleksanyan, Artak Sayunts, Hayk Zakaryan, Vladimir Aroutiounian, Gohar Shahnazaryan,

Valeri Arakelyan

International Journal on Advances in Systems and Measurements 2020 312-321

---

Article

**Study of Hydrogen Peroxide Vapors Sensor Made of Nanostructured Co-doped SnO<sub>2</sub> Film**

Vladimir AROUTIOUNIAN, Valeri ARAKELYAN, Mikayel ALEKSANYAN, Gohar SHAHNAZARYAN,

Artak SAYUNTS, Berndt JOOST

Sensors & Transducers 2019 24-31

---

Article

**Nanocomposite H<sub>2</sub>O<sub>2</sub> Vapor Sensors Made on the Base of Carbon Nanotubes Covered with SnO<sub>2</sub> Nanoparticles**

Zaven ADAMYAN, Artak SAYUNTS, Emma KHACHATURYAN, Valeri ARAKELYAN, Vladimir AROUTIOUNIAN,

Bernth JOOST

Sensors & Transducers 2019 18-23

---

Article

**ИССЛЕДОВАНИЕ СЕНСОРОВ ПАРОВ ПЕРЕКИСИ ВОДОРОДА, ИЗГОТОВЛЕННЫХ НА ОСНОВЕ УГЛЕРОДНЫХ НАНОТРУБОК, ПОКРЫТЫХ НАНОЧАСТИЦАМИ ДВУОКИСИ ОЛОВА**

З.Н. АДАМЯН, А.Г. САЮНЦ, Э.А. ХАЧАТУРЯН, В.М. АРАКЕЛЯН, В.М. АРУТЮНЯН, В. JOOST  
Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2019  
75-84

---

*Article*

**Study of Hydrogen Peroxide Vapors Sensors Based on Carbon Nanotubes Coated with Tin Oxide Nanoparticles**

Z. N. Adamyan, A. G. Sayunts, E. A. Khachaturyan, V. M. Araqelyan, V. M. Aroutiounian, B. Joost  
Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 57-64

---

*Article*

**Nanocomposite sensors of propylene glycol, dimethylformamide and formaldehyde vapors**

Zaven Adamyan, Artak Sayunts, Vladimir Aroutiounian, Emma Khachaturyan, Martin Vrnata, Premysl Fitl,

Jan Vlcek

Journal of Sensors and Sensor Systems 2018 31-41

---

*Article*

**Study of Propylene Glycol, Dimethylformamide and Formaldehyde Vapors Sensors Based on MWCNTs/SnO<sub>2</sub> Nanocomposites**

Zaven Adamyan, Artak Sayunts, Vladimir Aroutiounian, Emma Khachaturyan, Arsen Adamyan,

Martin Vrnata, Přemysl Fitl, Jan Vlček

Sensors & Transducers 2017 38-45

<http://www.sensorsportal.com/HTML/DIGEST/Submission.htm>

---

*Article*

**Nanostructured Sensors for Detection of Hydrogen Peroxide Vapours**

Vladimir AROUTIOUNIAN, Valeri ARAKELYAN, Mikayel ALEKSANYAN, Artak SAYUNTS,

Gohar SHAHNAZARYAN, Petr KACER, Pavel PICHA, Jiri KOVARIK, Jakub PEKAREK, Berndt JOOST

Sensors & Transducers 2017 46-53

<http://www.sensorsportal.com/HTML/DIGEST/Submission.htm>

---

*Article*

**Sensor for detection of chemical agents made of Co-doped SnO<sub>2</sub>**

V. M. Aroutiounian, V. M. Arakelyan, M. S. Aleksanyan, A. G. Sayunts, G. E. Shahnazaryan, M. Vrnata,

P. Fitl, J. Viček, K. S. Gharajyan, H. S. Kasparyan

Armenian Journal of Physics 2017 122-127

---

*Article*

**Исследование нанокompозитных толстопленочных сенсоров паров бутанола**

З.Н. Адамян, А.Г. Саюнц, Э.А. Хачатрян, В.М. Арутюнян

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2016

192-201

<http://www.flib.sci.am/eng/Fizika/Frame.html>

---

*Article*

**Study of Nanocomposite Thick-Film Butanol Vapor Sensors**

Z.N. Adamyan, A.G. Sayunts, E.A. Khachaturyan, V.M. Aroutiounian

Journal of Contemporary Physics (Armenian Academy of Sciences) 2016 143-149

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

---

*Article*

**Comparative Study of VOC Sensors Based on Ruthenated MWCNT/SnO<sub>2</sub> Nanocomposites**

Vladimir Aroutiounian, Zaven Adamyan, Artak Sayunts, Emma Khachaturyan, Arsen Adamyan,

Klara Hernadi, Zoltan Nemeth, Peter Berki

International journal of Emerging Trends in Science and Technology 2014 1309-1319

<http://ijetst.in/>

---

*Conference*

**Hydrogen Peroxide Vapours Sensors Made From ZnO and SnO<sub>2</sub> Films**

V. Aroutiounian, V. Arakelyan, M. Aleksanyan, A. Sayunts, G. Shahnazaryan, P. Kacer, P. Picha,

J. A. Kovarik, J. Pekarek, B. Joost

---

*Conference*

**Study of propylene glycol and dimethylformamide vapors sensors based on MWCNTs/SnO<sub>2</sub> nanocomposites**

Z. Adamyan, A. Sayunts, V. Aroutiounian, E. Khachaturyan, A. Adamyan, M. Vrnata, P. Fitl, J. Vlček

---

*Conference*

**Study of MWCNT/SnO<sub>2</sub> Nanocomposite Acetone and Toluene Vapor Sensors**

Vladimir M. Aroutiounian, Zaven N. Adamyan, Artak G. Sayunts, Emma A. Khachaturyan,

Arsen Z. Adamyan

---

*Conference*

**Gasoline sensor based on ZnO**

M.S. Aleksanyan, V.M. Arakelyan, V.M. Aroutiounian, A.G. Sayunts

---

*Conference*

**On Selectivity of Surface-Ruthenated MWCNT/SnO<sub>2</sub> Nanocomposite VOCs Sensors**

A.G. Sayunts

---

*Conference*

**Detection of Simulants of Chemical Warfare Agents on Textile Chemiresistors**

A. Sýkorová, E. Marešová, D. Tomeček, Š. Havlová, P. Hozák, J. Vlček, L. Fišer, P. Fitl, M. Aleksanyan,

A. Sayunts, V. Aroutiounian, M. Vrnata

---

*Conference*

**MWCNTs/SnO<sub>2</sub> Harmful Gas Sensors**

Z. Adamyan, A. Sayunts, V. Aroutiounian, E. Khachaturyan, A. Adamyan, M. Vrnata, P. Fitl, J. Vlček

---

*Conference*

**SnO<sub>2</sub> and ZnO Detectors of Hydrogen Peroxide Vapors**

Vladimir M. Aroutiounian, Valeri M. Arakelyan, Mikayel S. Aleksanyan, Artak G. Sayunts,

Gohar E. Shahnazaryan, Petr Kacer, Pavel Picha, Jiri A. Kovarik, Jakub Pekarek, Berndt Joost

---

*Conference*

**Co-DOPED SnO<sub>2</sub> SENSOR FOR DETECTION OF CHEMICAL AGENTS**

V.M. Arakelyan, M.S. Aleksanyan, A.G. Sayunts, G.E. Shahnazaryan, M. Vrnata, P. Fitl, J. Vlček,

K.S. Gharajyan, H.S. Kasparyan

---

Conference

**STUDY OF MWCNTs/SnO<sub>2</sub> NANOCOMPOSITE FORMALDEHYDE GAS SENSOR**

Z.N. Adamyan, A.G. Sayunts, E.A. Khachaturyan, V.M. Aroutiounian

---

Conference

**Co-doped SnO<sub>2</sub> Sensor for Detection of Hydrogen Peroxide Vapors**

V. M. Aroutiounian, V. M. Arakelyan, M. S. Aleksanyan, G. E. Shahnazaryan, A. G. Sayunts, B. Joost

---

Conference

**Study of MWCNTs/SnO<sub>2</sub> Nanocomposite H<sub>2</sub>O<sub>2</sub> Vapor Sensors**

Z. N. Adamyan, A. G. Sayunts, E. A. Khachaturyan, V. M. Arakelyan, V. M. Aroutiounian, B. Joost

---

Conference

**UV-assisted Chemiresistive Alcohol Sensor Based on Cobalt Doped Tin Dioxide**

Mikayel Aleksanyan, Artak Sayunts, Hayk Zakaryan, Vladimir Aroutiounian, Valeri Arakelyan,

Gohar Shahnazaryan

---

Patent

**Արդյունաբերական թունավոր նյութերի ռեզիստիվ սենսոր**

Հարությունյան Վլադիմիր Միխայիլի, Առաքելյան Վալերի Միքայելի, Վրնատա Մարտին, Ալեքսանյան Միքայել Սերյոժայի, Ադամյան Չավեն Նիկոլայի, Սայունց Արտակ Գարեգինի, Շահնազարյան Գոհար Էմիլի, Ադամյան Արսեն Չավենի, Խաչատուրյան Էմմա Արսենի, Ֆիտլ Պրեմիսլ, Վլչեկ Յան

---

Patent

**Ռազմական թունավոր ազդանյութերի ռեզիստիվ սենսոր**

Հարությունյան Վլադիմիր Միխայիլի, Առաքելյան Վալերի Միքայելի, Վրնատա Մարտին, Ալեքսանյան Միքայել Սերյոժայի, Ադամյան Չավեն Նիկոլայի, Սայունց Արտակ Գարեգինի, Շահնազարյան Գոհար Էմիլի, Ֆիտլ Պրեմիսլ, Վլչեկ Յան, Կասպարյան Հայկ Սերգեյի

---

Patent

**Օդում ջրածնի պերօքսիդի գոլորշիների հայտնաբերման եղանակ**

Վ. Հարությունյան, Վ. Առաքելյան, Մ. Ալեքսանյան, Չ. Ադամյան, Ա. Սայունց, Գ. Շահնազարյան, Պ. Կաչեր

---

Patent

**Ջրածնի նանոկառուցվածքին ռեզիստիվ սենսոր**

Ալեքսանյան Միքայել Սերյոժայի, Սայունց Արտակ Գարեգինի, Շահխաթունի Գևորգ Հարությունի, Սիմոնյան Չարինե Գևորգի, Շահնազարյան Գոհար Էմիլի, Հարությունյան Վլադիմիր Միխայիլի

---

Patent

**Ջրածնի դետեկտոր**

Միքայել Ալեքսանյան, Արտակ Սայունց, Գևորգ Շահխաթունի, Չարինե Սիմոնյան, Գոհար Շահնազարյան

---

Conference

**Highly Sensitive Hydrogen Sensor Based on ZnO/MWCNTs Nanocomposite Material**

M.S. Aleksanyan, A.G. Sayunts, G.H. Shahkhatuni, Z.G. Simonyan, G.E. Shahnazaryan

---

*Conference*

**A Chemiresistive Gas Sensor Based on SnO<sub>2</sub>:ZnO Nanostructured Thin Film for the Detection of Hydrogen Peroxide Vapor**

Mikayel Seryozha Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Vladimir Aroutiounian,

Gohar Shahnazaryan

---

*Conference*

**Highly Sensitive Hydrogen Gas Sensor Based on Fe<sub>2</sub>O<sub>3</sub>:ZnO Nanostructured Thin Film**

Mikayel Aleksanyan, Artak Sayunts, Gevorg Shahkhatuni, Zarine Simonyan, Gohar Shahnazaryan,

Vladimir Aroutiounian

---

*Conference*

**Fabrication and Characterization of CO<sub>2</sub> Sensor Using ZnO<In> Nanograins**

M. Aleksanyan, G. Shahkhatuni, Z. Simonyan, G. Shahnazaryan, R. Papovyan, D. Kananov, A. Grigoryan,

G. Gevorgyan, G. Stepanyan, A. Sayunts

---