

# Slavik Volodia Melkonyan

✉ smelkonyan@ysu.am

## Institute of Physics

Chair of Semiconductor Physics and Microelectronics

Professor

## Education

---

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	faculty of radiophysics
<b>Date</b>	1975 - 1980
<b>Degree name</b>	Qualified specialist

---

## Scientific Rank/degree

---

<b>Institution</b>	Yerevan State University
<b>Date</b>	2016
<b>Degree name</b>	Professor
<b>Specialty</b>	Physico-mathematical sciences

---

<b>Institution</b>	Yerevan State University
<b>Date</b>	2007
<b>Degree name</b>	Doctor
<b>Specialty</b>	Physico-mathematical sciences
<b>Research Topic</b>	Equilibrium phonon 1/f fluctuations of electron lattice mobility in homogeneous semiconductors

---

## Language skills

Русский English

---

## Work experience

---

<b>Institution</b>	Yerevan State University
<b>Period of time</b>	1980 till now
<b>Rank/degree</b>	professor

---

## Scientific interests

- Fluctuation phenomena in semiconductor materials and devices
- Surface phenomena

- Graphene nanostructures
  - Rayleigh and Raman scatterings
- 

## Membership

---

<b>Institution</b>	Physics scientific council 049, YSU
<b>Period of time</b>	2020 till now

---

## Publications

---

*Article*

### **Basic principles of resonance Rayleigh scattering in Graphene**

S.V. Melkonyan, T.A. Zalinyan

Carbon Letters 2023 1783-1789

---

*Article*

### **On the interpretation of single and bilayer graphene minimal conductivity**

Slavik V. Melkonyan

Universal Journal of Carbon Research 2023 56-65

---

*Article*

### **The Equation of Electron Diffusion in the Momentum Space in Graphene**

T.A. Zalinyan, S.V. Melkonyan

Armenian Journal of Physics 2022 112-119

---

*Article*

### **Coulomb mechanism of Raman radiation in graphene**

S.V. Melkonyan

Carbon Letters 2021 1051-1059

---

*Article*

### **Electron Mobility Non-Damping Fluctuations in Semiconductors**

Slavik V. Melkonyan, Tigran A. Zalinyan, Sargis S. Melkonyan

FLUCTUATION AND NOISE LETTERS 2018 1850018(1-15)

---

*Manual*

### **Կիսահաղորդիչների օպտիկայի հիմունքներ**

Սլավիկ Վոլոդյայի Մելքոնյան

2015 155

---

*Article*

### **Electron-acoustic phonon field induced tunnel scattering**

T.A. Zalinyan, S.V. Melkonyan, A.L. Harutyunyan

Condensed Matter Physics 2015 23702/ 1-12

---

*Article*

### **Electron Mobility Noise Spectral Density and Variance in a Semiconductor**

T.A. Zalinyan, S.V. Melkonyan, A.L. HarutyunyaN

Armenian Journal of Physics 2014 224-243

---

*Conference*

**On the theory of intravalley Raman scattering in intrinsic graphene**

S.V. Melkonyan

---

*Conference*

**Electron lattice mobility fluctuations in equilibrium semiconductors**

T.A. Zalinyan, S.V. Melkonyan

---